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Effectiveness of Mantra-Chanting Program on The Impulsivity and Aggression Levels of Adolecents

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***Abstract*—The present Quasi-experimental study aims to investigate the effectiveness of Mantra chanting intervention on Mindfulness, Aggression, and Impulsivity levels among school-going adolescents in the age range of 10- 19 years via convenience and purposive sampling using self-reported: 1) The mindfulness attention awareness scale (MAAS), 2) Aggression Questionnaire, and 3) BIS11- Barratt Impulsiveness Scale. The data analysis revealed that there exists a significant difference in improvement in Mindfulness and reduction in Impulsivity and Aggression levels due to Mantra chanting intervention at $p < 0.001$. Through rigorous experimental design and data analysis, this study aims to contribute to the understanding of the potential benefits of mantra chanting as a mindfulness practice for adolescents. The findings have implications for the development of interventions aimed at promoting psychological wellbeing and reducing negative behaviors among adolescents in school settings.**

***Index Terms*—Mantra-chanting, Impulsivity, Aggression, Mindfulness.**

I. INTRODUCTION

Adolescence is a critical stage of development characterized by significant physical, cognitive, social, and emotional changes. Once seen as a brief transition, it is now understood as a complex and prolonged journey influenced by societal norms, cultural expectations, and individual traits. Understanding this phase is crucial for fostering resilience and positive outcomes. Similarly, aggression, a common human behavior, arises from both internal and external influences, often leading to harmful consequences. While early theories suggest aggression is innate, modern perspectives emphasize the role of learned behaviors and social factors. Contributing factors include frustration, media violence, environmental discomfort, and hormonal influences, highlighting the need for effective interventions to promote healthier conflict resolution. Impulsivity, defined by rapid and unplanned reactions, is closely linked to mental disorders and risky behaviors. It is a multifaceted construct involving urgency, sensation seeking, and lack of premeditation, with ongoing debates regarding its definition and measurement. Understanding impulsivity is essential for developing targeted interventions for disorders like ADHD and personality disorders. On a different note, mantra chanting is an ancient spiritual practice rooted in various religious traditions, believed to enhance mental focus, relaxation, and spiritual well-being. Examining mantras such as the Mahamrityunjay, Gayatri, and Santi mantras through psychology, neuroscience, and religious studies reveals their therapeutic and cognitive benefits. By bridging tradition with modern research, mantra chanting can contribute to mindfulness practices, therapeutic interventions, and overall spiritual growth.

II. ADOLESCENCE: BETWEEN CHILDHOOD AND ADULTHOOD

Adolescence is a transitional phase between childhood and adulthood, marked by physical, psychological, and social changes. While puberty, triggered by hormonal shifts, signifies the onset of adolescence through growth spurts and sexual maturation, this stage extends beyond biology to include cognitive, emotional, and social development. Rather than a sudden shift, adolescence is a gradual journey where individuals explore their identities and take on increasing responsibilities. Societal changes, such as prolonged education and delayed marriage, have extended this phase in modern times. Ultimately, adolescence is not solely defined by physical maturity but by a broader progression toward adulthood.

Adolescence brings rapid physical growth, with girls

maturing earlier than boys. Puberty triggers hormonal changes, leading to menstruation and breast development in girls, while boys develop deeper voices and facial hair. Facial features mature, though some retain youthful traits, often seen as attractive in females but socially challenging for some males. Early-maturing boys gain social advantages like strength and leadership, whereas early-maturing girls may face unwanted attention. These changes shape self-identity and social experiences, making puberty a unique and complex transition.

Adolescents develop logical reasoning skills, but only about 40% demonstrate proficiency in solving complex problems. Their ability to think logically is often limited to familiar subjects. Theory of mind evolves, shifting from a realist view of knowledge to recognizing differing perspectives. Preadolescents begin distinguishing between facts and opinions, leading to a phase of skepticism and dogmatism. Eventually, some reach post-skeptical rationalism, understanding that while absolute truths are uncertain, some arguments are stronger. This advanced thinking is crucial for informed decision-making in democratic societies, highlighting the continued cognitive growth beyond childhood.

Adolescence brings significant social and emotional changes, including heightened mood fluctuations. Studies show that teenagers experience more intense and frequent mood swings compared to adults, influenced by biological, psychological, and social factors. While adolescence is often seen as a stressful period, research suggests most teenagers report being happy and self-assured. Additionally, despite common beliefs, many adolescents maintain positive relationships with their parents, sharing core values and future plans. While disagreements may arise over certain issues, they do not overshadow the overall harmony.

These findings challenge misconceptions and highlight the complexity of adolescent emotional development.

Despite conflicts, most adolescents maintain positive relationships with their parents, who must balance granting freedom with setting boundaries. Parenting styles significantly influence adolescent development, with authoritative parenting—marked by warmth, responsiveness, and clear expectations—leading to positive outcomes such as higher self-esteem, academic success, and social competence. In contrast, authoritarian parenting, which is strict but unresponsive, can strain relationships, while permissive parenting, which is indulgent but lacks structure, may lead to poor self-regulation. Neglectful parenting, showing neither support nor control, often results in negative behavioral outcomes. Parenting styles are shaped by two dimensions: demandingness (control and strictness) and responsiveness (warmth and involvement).

Authoritative parents balance both, fostering well-adjusted adolescents, whereas neglectful parenting has the most detrimental effects. Research suggests that parenting plays a crucial role in shaping adolescents' behavior, contradicting claims that peer influence is more dominant.

Ultimately, the right balance of guidance and autonomy is key to healthy adolescent development.

Adolescent personality traits interact with environmental factors to influence adjustment. While dysfunctional parenting and external influences contribute to behavioral issues,
individual characteristics also play a crucial role. Adolescents displaying aggression, hyperactivity, or irritable-inattentive behavior are at higher risk of peer rejection and
antisocial behavior. A study by Pope and Bierman (1999) found that traits like aggression and withdrawal in early grades predicted later social struggles and delinquent behavior. Aggressive and irritable-inattentive adolescents were more likely to engage in confrontational (e.g., vandalism) and nonconfrontational (e.g., truancy) antisocial
behaviors. This highlights the importance of both personal traits and environmental influences in shaping adolescent development and future outcomes.

Resilience in adolescents is shaped by positive traits, strong family bonds, and community support, helping them thrive despite adversity. Resilient individuals often have affectionate temperaments, intelligence, and problem-solving skills, fostering positive relationships.

Protective factors such as stable caregivers, role models, and supportive communities play a crucial role in their development. Adolescence, historically a transition to adulthood, has gained significance in India due to modernization and economic growth.

With 21.4% of India's population being adolescents, their well-being is vital for the nation's future. However, concerns persist over inadequate attention to their health, education, and workforce participation, especially for females. Kakar's perspective emphasizes continuity from childhood to adulthood, shaped by gender and class roles. While lower-class adolescents transition smoothly into adult responsibilities, upper-class youth experience more variation, sometimes facing intergenerational conflicts. Despite these differences, strong family values remain a defining trait of Indian adolescents.

III. AGGRESSIVE MOTIVATION: THE MOST DANGEROUS MOTIVE

The debate over whether aggression is innate or learned remains ongoing. Freud and ethologist Konrad Lorenz suggested humans have an inherent tendency for aggression, but most contemporary psychologists argue that external factors primarily trigger aggressive behavior. Research challenges the idea of universal innate aggression, as violent crime rates vary significantly across cultures, influenced by social and environmental conditions. Some developed nations have lower crime rates than the U.S., while certain developing countries experience higher rates, highlighting the role of societal influences. This suggests that while biological factors may play a role, social and cultural conditions are the dominant forces shaping aggression.

Aggression is often triggered by social factors, such as frustration, provocation, and media influence. While frustration can lead to aggression, it is not the sole cause, as aggression can also stem from perceived injustice, particularly in workplace violence cases. Direct

provocation, such as insults or physical aggression, often escalates conflicts. Additionally, exposure to media violence, including TV and movies, can increase aggressive behavior by normalizing aggression and desensitizing individuals to its consequences. Interestingly, research suggests that violent content may also reduce the effectiveness of advertisements, as viewers become more focused on violent imagery rather than commercial messages.

Environmental factors, such as high temperatures, crowding, and irritating noise, can contribute to aggression by causing discomfort and negative emotions. These unpleasant conditions may directly trigger aggression or lead individuals to interpret others' actions as hostile, even when unintended. Additionally, negative feelings can activate aggressive thoughts and memories, further increasing aggressive tendencies. Research strongly supports the idea that uncomfortable environments can heighten aggression, highlighting the importance of managing external stressors to reduce conflicts, especially in stressful situations like traffic on a hot day.

Hormonal influences, particularly testosterone, play a role in aggression. Studies show that reducing testosterone levels in violent individuals decreases aggression, and violent offenders tend to have higher testosterone levels than nonviolent ones. Research also links high testosterone to lower prosocial behaviors, with both men and women exhibiting more aggression when testosterone levels are elevated. Aggression, as defined by Baron and Richardson, disregards others' well-being and is shaped by cultural, cognitive, and biological factors. G. Moser identifies four main theories of aggression: instinctual (innate impulse), reactive (response to frustration), learning (imitation and observation), and cognitive (internal processing of stimuli).

IV. THEORIES OF AGGRESSION

Advocates of biological theories assert that aggression is a genetically influenced behavior aimed at preserving the species against environmental changes. However, the current hypothesis regarding genetic determinants of aggressive behavior falls short in providing satisfactory explanations. The complexity of defining aggressive behavior precludes straightforward solutions to the issue. Even within the same species, aggressive behaviors do not constitute a uniform behavioral or biological entity that lends itself to simple genetic determinism, as proposed by this formulation.

During the first half of the twentieth century, the dominant scientific approach to psychology was the learning theory. Arnold Buss and Albert Bandura played pivotal roles in developing and applying these theories to understand aggressive behavior. Unlike instinct-driven perspectives on aggression, which propose that aggression arises from a few essential factors, the social learning framework suggests that it can be triggered and reinforced by a wide array of

conditions. Buss's theory marked a shift with its focus on personality and social variables influencing aggressive behavior. However, Bandura's theory stands out as the most influential learning theory of aggression and is the natural choice for discussion in this context.

The mechanistic theories of aggression view behavior through a cybernetic model of the nervous system, where past social experiences shape behavioral patterns. Hull (1943) proposed that primary organic tendencies, such as hunger or sexual needs, generate nerve impulses that drive behavior, leading to habit formation. Aggression intensity is influenced by three factors:

(a) interest in achieving a goal, (b) interference hindering actions, and (c) prior frustrations. Repeated frustrations amplify aggression, making its effects long-lasting. Miller (1948) introduced the displacement theory, suggesting that aggression may be redirected based on provocation intensity, behavioral inhibition, and similarity between the frustrating agent and the substitute target.

Berkowitz's associative theory of aggression suggests that aggressive reactions occur in the presence of cues linked to frustration or aggressive stimuli. Aggression, a persistent and inherited behavior, manifests physically and verbally, causing harm to individuals and surroundings. Verbal aggression, common among adolescents, can lead to physical aggression and emotional distress. Aggression is associated with mental health challenges, including depression and poor self-control. Victims of aggression are more likely to become aggressive themselves, leading to negative thought patterns, social issues, and mental health disorders. It often serves as a defense mechanism against stress, impacting relationships, academic performance, and emotional well-being.

Freud initially viewed human behavior as driven by the life instinct (Eros) but later introduced the death instinct (Thanatos), which compels self-destruction and aggression. He believed aggression arises from the interplay of these instincts, with unresolved anger leading to unconscious guilt and defensive mechanisms. Freud suggested that aggression can be redirected through displacement and sublimation, influencing behaviors like creativity or violence.

Childhood trauma may disrupt the balance of love and aggression, increasing destructive tendencies. His concept of catharsis proposed that expressing emotions in a non-destructive way helps reduce aggressive impulses.

The frustration-aggression hypothesis, proposed by Dollard and colleagues, suggests that aggression arises when goal-directed actions are blocked, leading to frustration. Unlike Freud’s instinctual view, this theory sees aggression as a reactive response rather than an innate drive. Aggressive energy builds up due to frustration and is released through aggression, with its intensity influenced by the level and frequency of frustration. Learned inhibitions can temporarily suppress aggression, but repeated frustration may lead to its eventual expression.

The theory acknowledges both biological and social influences in shaping aggressive behavior.

Bandura’s Social Learning Theory of Aggression highlights three key aspects: the origins, instigators, and regulators of aggression. Aggression is primarily learned through observation and modeling, influenced by family, subcultures, and mass media. Individuals are more likely to imitate behaviors from competent and influential models. Instigators include exposure to aggression, reinforcement, emotional arousal, and cognitive motivators like beliefs or delusions. Aggression is maintained through rewards, social reinforcement, and self-approval. The self-system evaluates behavior rather than controlling it. Bandura emphasizes the interaction of cognitive, environmental, and behavioral factors in shaping aggression.

Psychologists classify aggression into two main types: impulsive aggression and instrumental aggression. Impulsive aggression, driven by strong emotions like anger, occurs spontaneously and involves brain regions such as the amygdala and hypothalamus. An example is yelling at someone in traffic. Instrumental aggression, on the other hand, is goal-oriented and calculated, such as harming someone during a robbery to obtain money. Both types can negatively impact individuals and society. Understanding their triggers and motivations is essential for developing effective interventions and promoting healthier conflict resolution strategies.

V. IMPULSIVITY

Impulsivity is a critical concept in both research and

clinical settings, particularly concerning risky behaviors and various mental disorders. While it is recognized as a diagnostic criterion in the DSM and ICD, its precise influence on psychopathology remains unclear due to inconsistencies in its definition, components, and measurement methods. Impulsivity is often described as a multidimensional construct, encompassing aspects such as lack of premeditation, urgency, sensation seeking, and lack of perseverance. However, differing theoretical perspectives have led to varying conceptualizations, complicating research efforts. Despite these challenges, advancements in neuroimaging techniques, such as fMRI and EEG, are providing valuable insights into its neurobiological basis. Additionally, longitudinal studies tracking individuals over time may help clarify the developmental trajectories of impulsivity and its role in mental disorders and risky behaviors.

Several psychological theories attempt to define impulsivity. Eysenck's perspective links it to unplanned risky behaviors and rapid decision-making, while Dickman distinguishes between dysfunctional impulsivity, which involves acting without due consideration, and functional impulsivity, which can be beneficial in certain situations. Barratt categorizes impulsivity into three dimensions: motor (acting without forethought), cognitive (quick decision-making), and non-planning (lack of future-oriented thinking). From a biological and neuropsychological perspective, impulsivity is linked to failures in impulse inhibition, often associated with dysfunction in brain regions like the prefrontal cortex. It is also viewed as a learned behavior, shaped by social and environmental influences, particularly within the family context. Moeller et al. propose a bio-psycho-social model that integrates cognitive, social, and characterological dimensions of impulsivity.

In clinical practice, impulsivity is a symptom observed in various mental disorders, including ADHD, depression, anxiety disorders, and personality disorders, especially borderline and antisocial personality disorders. The DSM-5 categorizes impulsivity under disinhibition, emphasizing immediate, unplanned reactions without regard for consequences. Research highlights the role of serotonin dysfunction in impulsive aggression, with lower serotonin metabolite levels associated with violent impulsivity. Frontal lobe damage is also linked to impaired impulse control, affecting decision-making and behavior regulation. Impulsivity is not a standalone condition but rather a feature of multiple disorders, requiring comprehensive psychological evaluations to determine its underlying cause. Clinicians assess symptom severity, persistence, and associated behaviors, often incorporating input from family members to ensure accurate diagnosis and effective intervention.

VI. MANTRA CHANTING

Mantra chanting is a spiritual practice involving the repetition of sacred sounds, words, or phrases, often in meditation or religious ceremonies. The term "mantra" originates from Sanskrit, meaning an instrument of the mind or thought. In Mantra Meditation (MM), the mantra serves as the focal point, distinguishing it from other forms of meditation. Continuous repetition helps quiet the mind, leading to a state of emptiness free from thoughts and anxieties. Mantras are found in various religious traditions, including Hinduism, Buddhism, Jainism, and Sikhism, and are believed to hold spiritual power. Chanting mantras is thought to promote relaxation, focus the mind, and cultivate spiritual awareness. Additionally, it is believed to purify the mind, enhance inner peace, and facilitate a deeper connection with higher consciousness or divine energies.

VII. MAHAMRUTYUNJAY MANTRA

Japa, the repetitive chanting of a mantra, is a powerful spiritual practice that focuses the mind on a specific goal by invoking divine energies. In mantra science, each mantra is believed to embody a devata, representing certain spiritual attributes. Devatas exist in two forms—luminous (jyoti) and sound (nada)—and mantras are considered conscious sound waves revealed to ancient sages. The guru plays a key role in mantra initiation, selecting a mantra based on the disciple’s personality to ensure effective spiritual progress. Regular mantra practice, especially in collective settings, deepens meditation, strengthens social bonds, and fosters a sense of unity, allowing participants to experience a shared spiritual consciousness.

The Mahamrityunjay Mantra, a revered Vedic chant dedicated to Lord Shiva, is known for its profound

spiritual and healing properties. It symbolizes the transformative power of Shiva, bridging the mortal and divine realms. Through repetition, the mantra creates a protective spiritual energy, offering guidance, strength, and protection from negative forces. Its benefits extend beyond spiritual awakening to physical and emotional healing, fostering mental clarity, longevity, and resilience against hardships. Many practitioners have experienced miraculous effects, from improved well-being to life-changing interventions, making it a timeless source of solace and enlightenment.

The Maha Mrityunjaya Mantra in Sanskrit is as follows:

ॐ त्र्यम्बकं यजामहे सुगन्धं पुष्टिवर्धनम् । उवाधरुकष्टमव बधनान्मृत्योमुधक्षीय माऽमृतात् ॥

The transliteration for those not versed in Sanskrit is: "Om tryambakam yajamahe sugandhim pushtivardhanam | Urvarukamiva bandhanan mrityor mukshiya maamritat ||" This mantra is a prayer to Lord Shiva, seeking his protection and asking for liberation from the cycle of death and rebirth.

VIII. GAYATRI MANTRA

The Gayatri Mantra, an ancient Vedic hymn, is revered for its ability to promote physical, mental, and spiritual well-being. Regular chanting enhances concentration, memory, and inner peace while reducing anxiety and fostering holistic development. Despite its profound effects, scientific validation of its benefits remains limited due to its religious associations.

ॐ भूर्भुवः स्वः
तत्सष्टवतुवधेण्यं भगो देवस्य र्ीमष्टह। ष्टर्यो यो नः प्रचोदयात्॥

'Let my mind and the whole existence Be illumined and purified by your radiance'

The Gayatri Mantra is one of the most revered hymns in Vedic tradition, symbolizing the transcendence of the three states of consciousness—waking, deep sleep, and dreaming. It is derived from the Sanskrit root "gayanti traayate," meaning "that which liberates or protects." This mantra is believed to influence the three layers of existence—individual (adhyatmik), divine (adidhaivik), and physical (adibhautik). It also helps overcome the "taapatraya," or three afflictions, affecting the body, mind, and soul. The Gayatri Shakti, or energy of the mantra, empowers individuals to rise above these afflictions, fostering inner peace, spiritual elevation, and overall well-being.

The Gayatri Mantra consists of 24 syllables, which are metaphorically associated with the 24 vertebrae of the human spine, providing intellectual and spiritual stability. It is believed to awaken three key energies: Tejas (radiance), Yashas (victory), and Varchas (brilliance), which manifest within individuals and extend to those around them. The mantra is likened to a seed containing infinite potential, representing the vastness of cosmic creation. By chanting the mantra, practitioners elevate their consciousness beyond ordinary cognition into a meditative state, experiencing its transformative effects even without understanding its literal meaning.

The vibrational energy of chanting purifies the mind, promoting clarity, positivity, and heightened awareness.

Regular recitation of the Gayatri Mantra sharpens the intellect, enhances memory, and revitalizes the mind, much like polishing a mirror to restore its clarity. In Vedic tradition, learning begins with this mantra, which is equally accessible to both men and women. The ideal times for chanting are dawn and dusk (Sandhya periods), when the mind naturally transitions between states, offering a chance for spiritual elevation. During these moments, focused chanting prevents mental inertia and negativity, instead filling the mind with Gayatri Shakti, a radiant energy that keeps it energized and vibrant. This practice not only enhances personal well-being but also strengthens one's connection with the divine.

IX. SANTI MANTRA

ॐ सवे भवन्तु सुन्ि◌नः सवे सन्तु ष्टनरामयाः ।
सवे भद्राष्टि पश्यन्तु मा कष्टिद्दुः ि◌भाग्भवेत्। ॐ शान्तः शान्तः शान्तः ॐ॥

Oṃ sarve bhavantu sukhinaḥ Sarve santu nirāmayāḥ Sarve bhadrāṇi paśyantu mā kaścidduḥ khabhāgbhaveta। Oṃ śāntiḥ śāntiḥ śāntiḥ om॥

The prayer "Sarve Bhavantu Sukhinaḥ" carries a universal message of happiness, health, and prosperity

for all beings, promoting altruism and spiritual growth. It fosters compassion, peace, and interconnectedness, reflecting Hinduism's emphasis on universal brotherhood. Chanting this mantra is believed to enhance physical and mental well-being while aligning one's actions with positive energy and karmic balance. By spreading joy and reducing suffering, individuals contribute to a more harmonious world. This mantra serves not only as a prayer but also as a guiding principle for fostering a compassionate and fulfilling life.

X. OM MANTRA

Mantra Meditation (MM) involves the repetition of simple syllables like "Om" or "Ham" to enhance focus, relaxation, and inner peace. Scientific studies have shown that MM helps reduce stress, anxiety, depression, and insomnia, making it a nonpharmacological tool for mental well-being. Research on MM often relies on randomized controlled trials to ensure credibility, with modern instruments providing accurate data. However, self-reported measures may be influenced by personal and cultural factors. Overall, MM is recognized as a valuable practice for improving both mental and physical health, fostering mindfulness, and enhancing cognitive abilities.

Om chanting, a fundamental aspect of MM, is widely practiced for its potential mental and physical health benefits. The vibrations produced during chanting are believed to influence different parts of the body, stimulating relaxation and energy flow. Scientific studies indicate that Om chanting can alter brain wave patterns, enhancing alpha and theta waves linked to relaxation and deep meditation. Additionally, it improves neural connectivity in areas associated with decision-making and self-awareness while positively impacting neurotransmitter levels like serotonin and dopamine. These findings suggest that Om chanting plays a crucial role in mood regulation, stress relief, and cognitive enhancement.

Research highlights Om chanting’s potential to alleviate anxiety, depression, and other mental health disorders by lowering cortisol levels and promoting emotional stability. Studies suggest that it enhances mindfulness, increases attentional control, and fosters spiritual well-being by deepening one’s sense of connection with the universe. The rhythmic repetition of Om is believed to activate the parasympathetic nervous system, which promotes a state of calmness and balance. While Om chanting is traditionally rooted in Hindu, Buddhist, and Jain practices, modern research supports its therapeutic effects, encouraging further exploration of its clinical applications in mental health treatment.

Om chanting has been shown to effectively reduce stress and anxiety, with studies indicating that it leads to significant decreases in perceived stress levels, similar to mindfulness meditation. Research also suggests that Om chanting enhances cognitive function, attentional control, and mindfulness, while promoting inner peace and spiritual well-being. Additionally, it has been linked to improved sleep quality and a reduction in sleep disturbances. The chanting of Vedic mantras, such as the Gayatri mantra, has also been found to enhance intelligence, sustained attention, and memory function, particularly among students.

As an ancient practice rooted in Hindu tradition, Om chanting is believed to generate vibrations that promote relaxation, balance, and overall well-being. The resonance of the Om sound, often associated with a frequency of 432 Hz, is thought to activate the parasympathetic nervous system, reducing cortisol levels and alleviating stress. Furthermore, it has been found beneficial in managing anxiety, improving lung function, and fostering social cohesion. Unlike medications for stress-related disorders, Om chanting has no side effects and can be practiced independently once learned, making it a valuable tool for holistic mental and physical health.

XI. OM PURNAMADAH PURNAMIDAM MANTRA

The Om Purnamadah Purnamidam Mantra, a sacred Shanti mantra from the Upanishads, highlights the completeness and self-sustaining nature of the universe, reflecting the concept of Parabrahma as the ultimate reality. It conveys the idea that wholeness gives rise to further completeness, aligning with modern scientific principles. This timeless mantra offers deep spiritual and philosophical wisdom, emphasizing the interconnectedness of existence.

ॐ पूर्णमदः पूर्णमिदं पूर्णात् पूर्णमुदच्यते। पूर्णस्य पूर्णमादाय पूर्णमेवावशिष्यते ॥

ॐ शान्तः शान्तः शान्तः ॥

Om Purnamadah Purnamidam Purnat Purnam Udachyate | Purnasya Purnamadaya Purnameva Avashishyate || Om Shanti Shanti Shanti ||

The Om Purnamadah Purnamidam mantra highlights the eternal and indestructible nature of the universe, emphasizing its self-sustaining and omnipresent qualities. It teaches that everything originates from a divine source, making all beings complete and perfect. This mantra is deeply rooted in Hindu scriptures like the Vedas and Upanishads. Chanting it invokes a sense of wholeness, calms the mind, and aids in spiritual growth. Repeating it 108 times is believed to relieve stress and bring inner peace. It is widely used in meditation and yoga to enhance relaxation, concentration, and self-realization, leading to profound spiritual awakening.

This study explores the impact of mantra chanting on impulsivity and aggression in adolescents, considering its spiritual and psychological benefits, such as stress reduction and emotional regulation. Mantra chanting enhances mindfulness and focus, potentially aiding in self-awareness and self-regulation. As an alternative therapeutic approach, it offers a holistic option beyond conventional treatments like CBT or medication. Additionally, its cultural significance provides insights into how traditional practices influence mental health. Scientific validation through empirical research is essential to confirm its effectiveness, with potential applications in education, mental health care, and behavioral therapy programs for adolescents.

XII. OBJECTIVES

Following objectives were formulated with reference to the nature of the problem.

1. To evaluate the Effectiveness of Mantra Chanting on Mindfulness among school going Adolescents in the Experimental group and Control group.
2. To evaluate the Effectiveness of Mantra Chanting on levels of Aggression among school-going Adolescents in the Experimental group and Control group.
3. To evaluate the Effectiveness of Mantra Chanting on Levels of Impulsivity among school-going Adolescents in the Experimental group and Control group.

XIII. HYPOTHISIS

For the present research process, the following Null hypothesis were formulated:

H01: There would be no significant improvement in the level of mindfulness after the Intervention of Mantra chanting among school-going Adolescents.

H02: There would be no significant reduction in the level of Aggression after the Intervention of Mantra chanting among school-going Adolescents.

H03: There would be no significant reduction in the level of Impulsivity after the Intervention of Mantra chanting among school-going Adolescents.

XIV. METHOD

Research Problem of The Study: The present study attempts to investigate the Effectiveness of Mantra Chanting on the levels of Mindfulness, Aggression and Impulsivity among school-going Adolescents from selected school of Gujarat in India.

Research Objectives: Following objectives were formulated with reference to the nature of the problem.

1. To evaluate the Effectiveness of Mantra Chanting on Mindfulness among school- going Adolescents in the Experimental group and Control group.
2. To evaluate the Effectiveness of Mantra Chanting on levels of Aggression among school-going Adolescents in the Experimental group and Control group.
3. To evaluate the Effectiveness of Mantra Chanting on Levels of

Impulsivity among school-going Adolescents in the Experimental group and Control group.

Research Hypothesis:

For the present research process, the following Null hypothesis were formulated: H01: There would be no significant improvement in the level of mindfulness after the Intervention of Mantra chanting among school-going Adolescents.

H02: There would be no significant reduction in the level of Aggression after the Intervention of Mantra chanting among school-going Adolescents.

H03: There would be no significant reduction in the level of Impulsivity after the Intervention of

Mantra chanting among school-going Adolescents.

Research Variables:

In the present study, Mantra Chanting was be taken as an independent variable. The score of Mindfulness, Aggression, and Impulsivity among Adolescents were taken as dependent variables. The below table is presented with independent and dependent variables:

S.No.	Variables	Type of Variable
S1	Mantra Chanting	Independent
2	Mindfulness	Dependent
3	Aggression	Dependent
4	Impulsivity	Dependent

Control Variables

1. In the present study sample selection is done from Morbi Region Gujarat.
2. Adolescents between the ages of 14-18 years were included.
3. Rapport formation.

Research Design:

Phase-I: Descriptive cross-sectional retrospective survey was used for collecting data to estimate the prevalence of students with high aggression and high impulsivity.

Phase-II: Quasi experimental study (pre-post-test design) was used for assessing effect of Mantra chanting on mindfulness, aggression and impulsivity.

Sample:

Population:

School-going Adolescents residing in Morbi district in Gujarat, India were selected.

Inclusion criteria:

Participants must fit into the age range of 10 to 19 years. Both male and female gender were selected for study.

XV. EXCLUSION CRITERIA

Students above the age of 19 years were excluded from the study. Married individuals were excluded.

Sampling Technique: Phase-I

Non-Probability sampling method- Convenience (Consecutive sampling) and Purposive Sampling

Sampling Technique: Phase-II

Non-Probability sampling method- Convenience and Purposive Sampling method

Experimental Design

Table 1: Schematic representation of Experimental Research Design

Group (Intervention) N=40	Pre-test	Interventions	Post-test
Experimental (n=20)	O1	X1	O2

O1= Pre-test assessment (Mindfulness, Aggression & Impulsivity)

X= Mantra Chanting- 30 days- 10 Sessions conducted under the guidance and supervision of Team Consultants.

O2= Post-test- Assessment (Mindfulness, Aggression & Impulsivity)

SESSIONS	GOALS	ACTIVITIES
Pre-intervention sessions (Session)	Orientation and to assess the current level of mindfulness, aggression and impulsivity among adolescents.	Rapport formation, assessment was done using three tools. (1. The mindfulness attention awareness scale (MAAS) 2: Aggression Questionnaire (Buss & Perry, 1992) 3: BIS11- Barratt Impulsiveness Scale)
Intervention (Session 1)	To orient with what is mantra chanting process is and how it is useful.	Brief introductionabout mantra chanting process and recited mantras in the group
(Session 2)	Learning about how to recite each mantra effectively	Each mantra were recited and mantra chanting practice in the group

(Session 3)	Practicing mantra chanting understanding meaning of mantras and each	Mantra chanting practice with learning meaning of that mantra in the group
(Session 4)	Practice mantra chanting using mudras with the help of recorded mantra DVD.	Mantra chanting in group
(Session 5)	To do mantra chanting practice with proper pronouncing	Mantra chanting practice in group
(Session 5-.24)	To do mantra chanting practice with proper pronouncing	Mantra chanting practice in group
(Sessions 25)	To check the learning of mantra chanting practice	Each individual was randomly asked to recite one of the five mantras with using proper pronouncing and mudras
Post Assessment (Session	To assess the aggression, mindfulness and impulsivity level among adolescents	Assessment was done by using above mentioned tools

Table 2: Detailed Mantra Chanting Intervention Plan (Linehan, 1993)

Tool 1: The mindfulness attention awareness scale (MAAS)

The Mindful Attention Awareness Scale (MAAS) is a psychological tool developed by Brown and Ryan in 2003 to measure mindfulness in daily life. It consists of 15 statements rated on a scale from 1 (almost always) to 6 (almost never), assessing present-moment awareness, focus, and non-reactivity. The total score reflects an individual's general mindfulness level, with higher scores indicating greater mindfulness. The MAAS is not a diagnostic tool but provides insight into one's mindfulness tendencies. It is widely used in psychological research and self-assessment.

Tool 2: Aggression Questionnaire (Buss & Perry, 1992)

The Buss-Perry Aggression Questionnaire (BPAQ) is a self-report tool developed by Buss and Perry to measure aggression in adolescents and adults. It consists of 29 items assessing four dimensions: Physical Aggression (tendencies towards physical violence), Verbal Aggression (use of words to harm others), Anger (intensity and frequency of angry feelings), and Hostility (negative attitudes towards others). Responses are rated on a Likert scale, with scores calculated for each dimension. The BPAQ is widely used in research to evaluate aggression but has limitations, such as response biases. Results should be interpreted carefully and ideally supplemented with other assessment methods.

Tool 3: BIS11- Barratt Impulsiveness Scale

The Barratt Impulsiveness Scale (BIS) is a psychological tool developed by Dr. Ernest Barratt to measure impulsiveness in individuals. It consists of 30+ items assessing attentional, motor, and non-planning impulsiveness, rated on a Likert scale. Higher scores indicate greater impulsivity, risk-taking, and lower self-control, while lower scores reflect better self-regulation. The BIS is widely used in research and clinical assessments to evaluate impulsive behaviors and personality traits. Though valuable, it should be used alongside other assessment methods for a comprehensive evaluation.

XVI. FINDINGS

Results:

Phase-I

Table 1: Test of Normality

Variables	Shapiro-wilk Normality Test		
	Statistic	df	Sig.
Mindfulness	.907	214	.000
Aggression	.914	214	.000
Impulsivity	.971	214	.000

From the Table no. 1, it is clearly depicted that the data was non-normally distributed. The normality check

was done by utilizing Shapiro-Wilk tests. Therefore, non-parametric tests, i.e., Spearman rho correlation test and Wilcoxon Signed rank test were utilized by using SPSS ver 26.0.

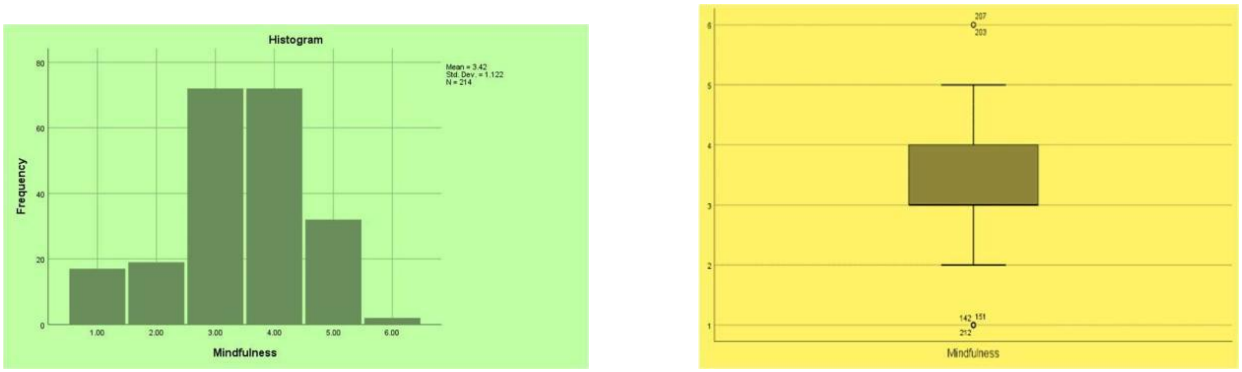

Figure 1: The Histogram and Q-Q Plot showing the non-normal distribution for Mindfulness

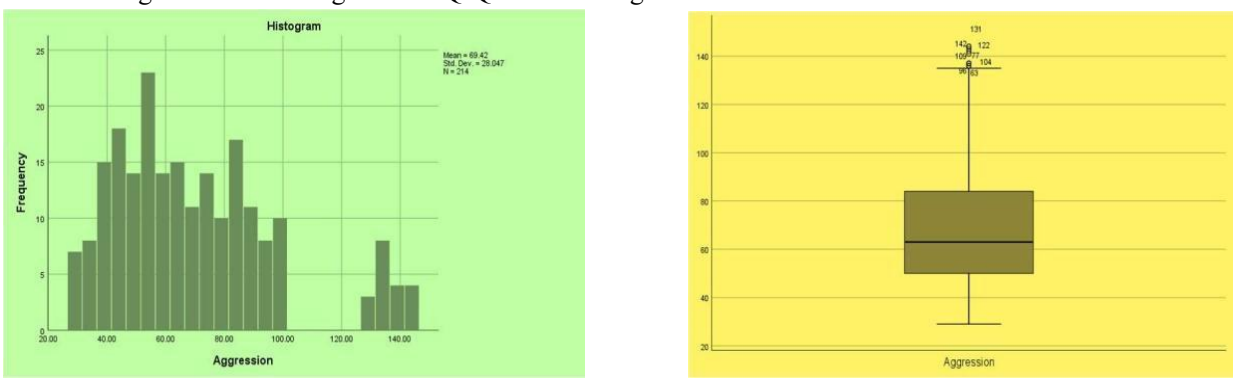

Figure 2: The Histogram and Q-Q Plot showing the non-normal distribution for Aggression.

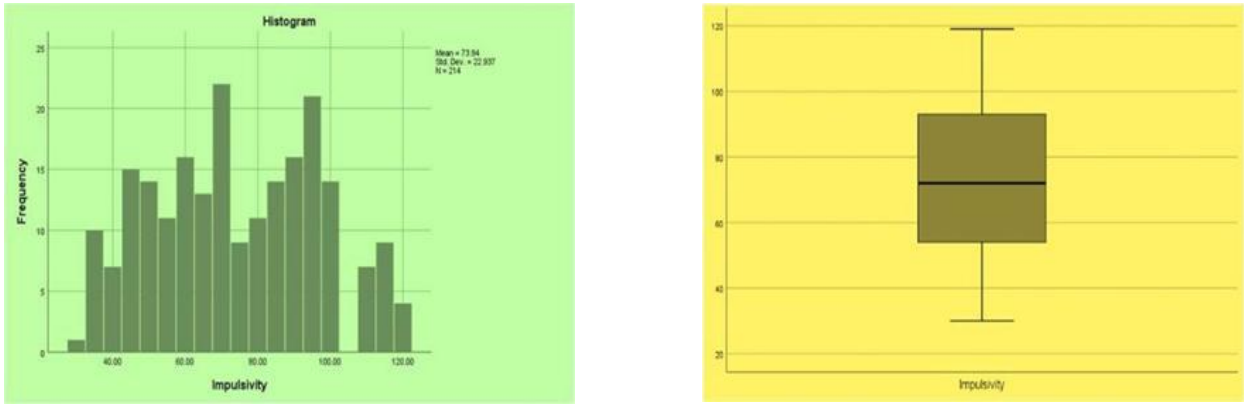

Figure 3: The Histogram and Q-Q Plot showing the non-normal distribution for Impulsivity.

Table 2: Correlations (Spearman rho) among Mindfulness, Aggression and Impulsivity levels in Adolescents.

Variables	r-value	p-value
Mindfulness x Aggression	-.266**	< 0.001
Mindfulness x Impulsivity	-.210**	0.002
Impulsivity x Aggression	.225**	0.001
Total N = 214		

**Correlation is significant at the 0.01 level

Phase-II

Table 3: Wilcoxon Sign Rank Test for the Experimental group

Groups	Variables	Test Type	N	Mean	SD	Z	Asymp. Sig. (2- tailed)

Experimental Group	Mindfulness	Pre-test	20	1.10	0.307	-3.976[b]	*<0.001***
		Post-test	20	3.00	0.725		
	Impulsivity	Pre-test	20	114.55	3.017	-3.920[b]	*<0.001***
		Post-test	20	67.65	23.344		
	Aggression	Pre-test	20	135.90	4.700	-3.921[b]	*<0.001***
		Post-test	20	78.25	17.758		

The ($p < 0.001$) value indicates that for experimental group null hypothesis is rejected because it shows significant difference in improvement in Mindfulness and reduction in impulsivity and Aggression levels due to Mantra chanting intervention.

Mindfulness: The mean score was M = 3.42 (SD = 1.12), ranging from 1.00 to 6.00, with a median of Mdn = 3.00. Skewness was -.412, indicating a slightly negatively skewed distribution. The Shapiro-Wilk test ($p < .001$) suggested a departure from normality.

Aggression: Participants scored M = 69.42 (SD = 28.05) on aggression, ranging from 29.00 to 144.00, with a median of Mdn = 63.00. The distribution was positively skewed (skewness
= .969) and non-normal (Shapiro-Wilk test, $p < .001$).

Impulsivity: Mean impulsivity was M = 73.94 (SD = 22.94), ranging from 30.00 to 119.00, with a median of Mdn = 72.00. The distribution showed slight positive skewness (skewness =
.070) and was non-normal (Shapiro-Wilk test, $p < .001$).

Tests of Normality

The normality of each variable was assessed using the Kolmogorov-Smirnova and Shapiro-Wilk tests. Results indicated that the data significantly deviated from normality for all variables (Mindfulness: $p < .001$, Aggression: $p < .001$, Impulsivity: $p = .010$).

Correlations

Spearman's rho correlations were conducted to examine associations between variables:

Mindfulness was significantly negatively correlated with Aggression ($\rho = -.266$, $p = .000$) and Impulsivity ($\rho = -.210$, $p = .002$).

Aggression was positively correlated with Impulsivity ($\rho = .225$, $p = .001$).

XVII. DISCUSSION

Phase I findings highlight the relationships between mindfulness, aggression, and impulsivity among adolescents, showing significant deviations from normal distribution. A negative correlation exists between mindfulness and both aggression and impulsivity, while aggression and impulsivity are positively correlated. Phase II results from the Wilcoxon Signed Ranks Test indicate significant increases in mindfulness and decreases in aggression and impulsivity following a mantra chanting intervention. These findings suggest improved self-regulation and emotional control, fostering a positive school environment. The study supports mantra chanting as an effective intervention for adolescent mental health. It emphasizes its potential in reducing negative behaviors and enhancing mindfulness. Further research is needed to explore long-term effects and mechanisms behind these changes.

XVIII. LIMITATIONS

The study's use of convenience and purposive sampling may introduce bias, limiting generalizability. Immediate post-test assessments provide only short-term insights, necessitating long-term follow-ups. Potential confounding variables, such as socio-economic status and family dynamics, were not controlled for, affecting internal validity. These factors could influence the relationship between mantra chanting and psychological outcomes. Further research is needed to address these limitations and validate findings.

Implications:

The study on mantra chanting's effects on mindfulness, aggression, and impulsivity in adolescents has broad implications for psychology and education. If proven effective, it could enhance mindfulness, leading to better emotional regulation and stress management. Reduced aggression may foster safer school environments, while improved

impulse control could aid decision-making and academic performance. The study may also offer insights into the mind-body connection and neural pathways influencing behavior. Positive findings could inspire structured school-based mantra programs and influence educational policies. Additionally, it would contribute to mindfulness research, encouraging further exploration of holistic adolescent mental health interventions.

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