



Research Article

Effectiveness of Dharana and Pranayama: An Empirical Analysis of Gun Shooters

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ABSTRACT:

According to Patanjali's description in the Yoga Sutras, the sixth of yoga's Eight Limbs is called Dharana. It is referring to the state of mind known as concentration. To engage in dharana, one must train one's attention on a certain object, which may be either internal or external (for example, a statue or a god) or internal (such as a chakra). The Sanskrit term dharana can be translated as "concentration." Pranayama is a set of practices for harnessing and managing prana, also known as universal life energy. It is a vital component of yoga and is commonly included in asana practice or offered as a pre-meditation exercise. In this research paper, the researcher intends to study the effectiveness of practicing Dharana and Pranayama in the case of gun shooters in Andhra Pradesh. Student's t-test was employed to find the statistical significance of the study. The study revealed that practicing Dharana and Pranayama has improved the gun shooters' performance.

Keywords: Concentration, Dharana, Pranayama, Performance, and Yoga.

INTRODUCTION

The human person is comprised of three parts: the physical body, the brain, and the spirit. To match this, people require three things: physical well-being, intellectual stimulation, and emotional stability. There is peace in the world when people's physical, mental, and spiritual needs are all fulfilled.

Dharana: The exact definition of the phrase "dharana" is "to hold" or "to possess." Dharana is attained when one is able to hold or possess something to the exclusion of everything else in chidakasha, the realm of consciousness. When dharana is done well, it leads to dhyana, which is also called meditation. This is the state of being completely and naturally interested in the object of dharana (Satyangananda, 2003, p29). Dharana is the act of concentrating intensively on a single item, while dhyana is the state of having total and continuous awareness of something. Dhyana and dharana are both terms derived from Sanskrit. The Sanskrit word dhri, from which we get the word dharana, meaning "to hold firmly," and the word dharana relates to a variety of different meditation approaches. Dharana is a method of concentration in which the mind is forced to remain confined to a relatively narrow space that is determined by the

object that is the subject of the individual's concentration. Yoga is a practise that helps cultivate concentration like this. Dharana is practised by always keeping the mind's full focus on a contemplative object and returning it to it as soon as possible after losing contact with it. The objective is to reduce the number of times such distractions occur so that they may be eliminated totally, resulting in the mind being able to focus fully on the issue at hand (Shankar, 2002). Dharana is a kind of mental training that enables the aspirant to focus and regulate his or her mind in whatever manner they wish, free of interruption from the indriyas, or senses. Dharana practise trains the awareness to focus on the item that has been chosen indefinitely. It is a seeing process rather than a thinking one; the mind is not involved in this process.

Pranayam: "Pranayama" is derived from two words: "pra," which means "to fill," and "ana," which means "to breathe" or "to live." These words combine to form a new meaning: "life that fills with breath." Pranayama is all about controlling one's breath. The word "Prana" refers to the breath or the bioenergy of the body. On a deeper level, prana refers to the pranic energy that sustains life, also known as the life force, and "ayama" is the Sanskrit word for control. As a result, "Breath Control" is another term for Pranayama. By practising

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pranayama, one may learn to master the cycles of pranic energy and improve the health of their mind and body. Thus, the prana is connected to the mind, the mind is connected to the brain, the brain is connected to the soul, and the soul is connected to the everlasting divine power known as Paramatma, or God.

According to the principles of Indian Yoga, there are a few different categories that may be applied to different forms of breathing exercises:

Nari shodhanam: There should be three cycles of left-sided breathing (exhaling through the nose and inhaling through the right) and three cycles of right-sided breathing (inhaling through the nose and exhaling through the left), with each side lasting the same amount of time.

Kapalbhati: A deep, powerful exhalation that engages the diaphragm and core muscles. This is then followed by a period of muscular relaxation in the abdominal wall, which allows for a more leisurely, passive inhalation.

Bhastrika: That's because the abdominal muscles act like bellows, hence the name. In this case, both the inhale and the exhale are strong and powerful. The results are comparable to those of kapalbhati, and hyperventilation is a potential consequence.

Ujjayi: It alludes to the feeling of power that comes from being in charge of a successful outcome and is the result of a process of expansion that improves lung airflow. Slow, deep breathing in and out with just a partial closure of the glottis. It stops the hacking cough, reduces sympathetic nervous system activity, and promotes overall health.

Bhramari: Meaning "big bee" and "bee sound," it is used to describe the buzzing noise created by bees when they exhale. Take a deep breath in through both nostrils and let it out with a humming sound.

Sitali: The tongue is coiled like a pipe to create a tube shape. Outside of the mouth, the tip of the tongue is sticking out. When you take a deep breath, a hissing noise is made. Please use both nostrils to exhale fully.

Sitkari: As the lips separate and clench the teeth, the tongue is rolled back toward the soft palate. Hiss your air in as you inhale through your teeth. Put your attention on releasing all the air out of your lungs.

Suryabhedana: The breath is taken in through the right nostril, held for a moment, and then released in the same way.

Murccha: A full intake is taken through both nostrils, and then the chin is locked as the breath is slowly exhaled.

Plavini: To begin, the stomach is inflated to its full capacity with air, and then the lungs are inflated at the same time. The person holds their breath for a while before releasing it. It is a complex kind of pranayam.

Anulome and Velome: Deeply inhale via the left nostril, stop for a few seconds, and then fully exhale through the right nostril, all while keeping one nostril closed with a thumb.

Thus, dharani will give concentration and pranayama will give control on breathing.

REVIEW OF LITERATURE

Shirley Telles et al. (2016) report that meditation practiced over a period of time changes perception, attention, and cognition. The three variables which have been reviewed reported changes in short, middle, and long latency evoked potentials before, during and after dharana and dhyana. The study revealed that, the peak potential of a component was significantly increased during dharana, random thinking and focusing, but not during dhyana. **Rohit Chobe and L. Joshi (2016)** reported in 'A study on Prana Dharana in Context of Vigyan Bhairava Tantra' that dharana is one-pointed focus on something and dhyana is the state of total unbroken awareness of that. By create awareness to the breath they can calm down the unnecessary thought pattern. **Moradhvaj Singh (2014)** reported that 'Om' Chanting was the best treatment to reduce the anxiety level of college students in comparison to dharana. This might be due to that technique of yoga is related to meditation only difference is that in Om chanting meditation was done through the mantra in breathing process. Om chanting meditation was done through the mantra in breathing process but in case of dharana is hold in body which is difficult for individual so om chanting Om Chanting was the best treatment to reduce the anxiety level of college students. The study investigated the effect of sahaja yoga meditation on quality of life, anxiety, and blood pressure control and found that Om chanting is the superior mantra than dharana. **G Gowda (2018)** in his study the opposite of wandering quality of mind using dharana yoga method and develop an instrument for concentrated mind. It has been validated and significantly correlated with yoga self-efficacy scale to prove found to be reliable by using the psychometric analysis. Since the big bang theory of the universe, the most mystical and intriguing characteristic of human being is mind – even today. it's wandering nature has left the psychologists and the creators guessing what it is made up of. The dharana wellness scale is positively and constructs at the end of the study. **Stevie-Jae Hepburn et al. (2017)** reported pranayama meditation reduced the perceived level of stress teachers experienced. They investigated the benefits of a five-week meditation program for 91 high school teachers. They reported

that the meditation program had a positive impact on the stress and anxiety levels of the participants. The results based on the perceived stress scale conducted pre- and post-course will be reported first followed by the results of the structured interview conducted at the conclusion of the course. There is a limited body of research on the benefits of pranayama meditation for teacher stress relief. **Sonali Bhojar (2021)** reported that yoga is an ancient discipline aimed at bringing harmony and health to the individual's physical, mental, emotional & spiritual aspects. Pranayama is made up of two words "Prana" meaning that the root word an is added to feel, producing fresh live with a new meaning that fills with breath. Pranayama (Prana= Breath +Ayam=Pause) is concerned with the controlled breathing exercise and in a border sense the control of the vital force i.e.Prana. The study finds that pranayama will bring unity to the individuals life. **Naresh Dhaniwala (2020)** described pranayama and breathing exercises - types and its role in disease prevention & proper nutrition of the body is necessary for the development and growth of body and mind. Pranayama and other breathing exercises have gained more importance these days due to its definite role in improving blood oxygenation. Breathing exercises help in disease prevention and maintenance of positive state of health. Breathing exercises of various types, diaphragmatic breathing, alternate nostril breathing, and kapalbhati have been noted to be useful in chronic asthma. Pranayama and Yoga have proven their utility in various diseases as noted in studies done in various medical centers.

OBJECTIVES OF THE STUDY

The existing study of review of literature revealed that dharana and pranayama has unique benefits, thus there is a study gap of combination of dharana and pranayama. Based on the research gap,

the objectives of the study were formulated as below.

1. To study the influence of dharana on performance of gun shooters; and
2. To analyse the importance of pranayama on performance of gun shooters.

METHODOLOGY

The present paper is an empirical study to determine the effect of dharana and pranayama on the performance of gun shooters in Andhra Pradesh. **Data collection period and sources:** The research paper is depending on primary data has been collected from gun shooters from the January to March and April to June in 2025.

Hypotheses: The following null hypotheses were formulated to find the statistical significance of the study objectives.

- There is no significant relation between Dharana and performance of gun shooters before and after practicing it.
- There is no significant relation between Pranayama and performance of gun shooters before and after practicing it.

Statistical tests: For analysis of collected data, paired students t-test was employed to find the statistical significance of the hypothesis.

RESULTS & DISCUSSIONS

The analysis was done to find the influence of dharana before and after practicing it. The study was carried out on 25-gun shooters in Andhra Pradesh. The study finds that, the p-value is less than 0.05, hence null hypothesis is rejected and concluded that there is significant influence on dharana after practicing it. The gun shooters agrees that dharana has helped them to improve their performance and concentration.

Table -1: Paired samples t-test of Dharana before and after practicing it

Practicing Dharana Vs Performance of Gun shooters	Test Statistic value	P value
Before and After practicing Dharana	5.624	0.00

Source: primary data and tested at 5% LoS.

Second, analysis was carried out to find the statistical significance of practicing Pranayama on the performance gun shooters. Paired samples t-test

was applied to find the significance of the hypothesis.

Table -2: Paired samples t-test of Pranayama before and after practicing it

Practicing Pranayama Vs Performance of Gun shooters	Test Statistic value	P value
Before and After practicing Pranayama	6.327	0.00

Source: primary data and tested at 5% LoS.

The analysis finds that the p-value is less than 5 percent, hence it is concluded that the null hypothesis is rejected, and the alternative hypothesis is accepted. It can be concluded that, before and after practising pranayama, the performance of gun shooters has been different. So, after practising pranayama, the performance of gun shooters has improved.

The study revealed that, practicing dharana and pranayama improved the performance of gun shooters.

CONCLUSION

Dharana is a meditation practise that teaches one to fixate one's focus on a certain object without

allowing it to waver. It is not a process of thinking, but rather of perceiving, and the mind is not involved in this process at all. Dharana is a kind of mental training that helps the aspirant to focus and control the consciousness as he desires, free from any interference from the indriyas or the senses. The supportive research finding suggested that dharana and pranayama is easy to instruct, can be performed in virtually all circumstances without cost or equipment, has significant psychophysiological effects that may be specific to different types of pranayama (e.g., fast vs. slow, left vs. right nostril), is free of side effects, and is a simple behavioural strategy suitable for virtual any medical condition.

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