



International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
IJPESH 2014; 1(2): 17-19
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www.kheljournal.com
Received: 20-11-2014
Accepted: 10-12-2014

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Effect of Mental Noise on Sports Performance

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Abstract

A noise in the audiological sense is any undesired sound or impulse. Noise can be physiological or psychological. When a noise is 'heard' it is physiological, but when one 'listens' to it the noise becomes psychological. Psychological noise, an internal noise is attributed to those factors that influence the mind's ability to interpret messages effectively or correctly. This psychological noise can also be termed as "Mental Noise". Mental Noise can have mild to devastating influence on one's personality. This paper aims to throw light on the impact of mental noise on an individual in the context of sports performance. Possible causes of mental noise and some remedies to overcome the same are also discussed.

Keywords: Mental noise, Brainwave Mapping, Flow, Mindfulness.

1. Introduction

Mental noise is the constant chatter in the mind, comprising illogical and non-sequential thoughts, anxiety, fear and several other variables. It is the constant inner dialogue that goes on almost invariably at times, and plays with our inner focus, causing disturbances to our thought patterns and resulting in distraction of our much needed attention.

On many occasions, one may be aware of this mental noise, because it has now become a deeply embedded habit, and is considered as a natural and inseparable part of one's daily life. It is a sort of inner voice that constantly analyzes everything about life, circumstances, and the people around. It is an inner voice in the head that simply keeps on chattering. The human mind also makes the event worse by repeating the same thoughts over and over again, like a scratched gramophone record. Positive thoughts are fine, but more often these are negative thoughts that intensify anxiety, stress, worry, anger or frustration. In short, these are thoughts that one absolutely does not need.



2. Clarity of thought and good decision making process

There are various processes that are involved in good decision making. Studies (by Yingxu Wang, University of Calgary, Canada) have shown that decision making is a cognitive process resulting in the selection of a suitable course of action from among several alternative possibilities. It involves thought which again is required for solving problems, analyzing, comparing, studying, planning, etc. However, on many occasions, the mind roams at will, filling up the much needed attention with trivial, unimportant matters and useless thoughts that drains one's time and energy.

3. Identifying Mental Noise

Many individuals will experience one of the following situations in daily life. Though one may have paid very little attention to it, it still remains very much part of one's life.

1. Incessant thoughts that keeps playing the same tune.
2. Replay of negative situations of past or reliving fears / phobias over and over again.
3. Living on the past or fearing the future which kills one's enjoyment / focus of the present.
4. Always not present in the present. Always thinking on something else.
5. Constantly analyzing self and other people's situations, reactions and behavior.
6. Constant background noise that sometimes intrudes into the foreground of everything one does.

4. Mental noise and its impact on sports performance

According to Doug Gardner (2006), in sports, 90 percent of performance is mental. Yet, the majority of our time, energy and money is spent on physical training — right from sporting gear and sports exercises to gym memberships. This leaves very little time to focus on our mental game.

Mental noise has considerable impact on the performance of the individual. Edmund T. Rolls (2010) has revealed that performance levels can drop considerably when the athlete has this problem. The mind floods itself with thoughts of previous errors and failures, or simply jumps ahead to fears of future outcomes like a missed goal or a dismal performance.

This repeating mental chatter makes one miss opportunities due to insufficient attention to what is happening around, and suddenly causes a loss in focus and ultimately a failure in performance.

According to Kristen Race (2014), when one's brains get caught up in thoughts from the past...or thoughts of the future...it creates a stress response, and one can't use the part of the brain that keeps the individual engaged in the moment. This mental chatter can make it difficult to maintain perspective and focus. If one is too stressed about performance, he can't make good decisions and solve problems or stay composed.

Not only can one's thoughts and internal dialogue create a stress response, it also impacts one's behavior. Recent studies (August 2014) by researchers at Coventry University and Staffordshire University found that increased stress and anxiety, including fear of failure, results in mental noise and impacts athletic performance in competitive situations.

Several athletes suffer from mental noise without their own knowledge. To illustrate this, one such case was that of Milkha Singh - one of the world's greatest runners, also known as "The Flying Sikh". The race for which he is best remembered is his fourth-place finish in the 400 meters final at the 1960 Olympic Games, which he had entered as one of the favourites. He led the race till the 200m mark before suddenly easing off, allowing others to pass him. He admitted later that he suddenly lost focus as a result of mental flashes of his horrifying childhood experiences when his parents were murdered along with other relatives.

Many sportsmen suffer from mental noise arising out of grave to mild reasons, and their 'mindfulness' gets affected due to mental noise. 'Mindfulness' is simply staying connected with the present, focussing on the task on hand without allowing thoughts of the past or future harming the concentration.

5. Mental Noise Theory

According to the "Mental Noise Theory" (Vincent Covello, 2011), an individual who is anxious and experiencing stress has difficulty of hearing and processing most messages. Mental noise in fact diminishes up to 80%, the brain's ability to capture and process communication. Consequently a coach must limit the number of messages that is told to the player, as also the length of his communication. The message can also be repeated a number of times. A classic example of how mental noise affects the players' ability to process messages is the taking of a free kick by a soccer player, close to the goal.

When the referee has told the player to wait for the whistle before taking the free kick, the player goes for the kick even before the referee moves the wall back and signals. Here it should be appreciated that the player is not being disobedient; his brain simply didn't process what the referee said because of the mental noise. When players appear to lose concentration, the referee must be able to identify the same and repeat the message a number of times, and possibly even give them some visual clues such as in this case showing and pointing to the whistle, and asking the player for a response either verbally or visually by nodding their head.

Several researches have been undertaken to study the effect of mental Noise, and they have shown that Mental Noise is associated with a variety of negative consequences, including anxiety, post-traumatic stress disorder, depression, binge-drinking and binge-eating (Robinson MD, Tamir M, 2005).

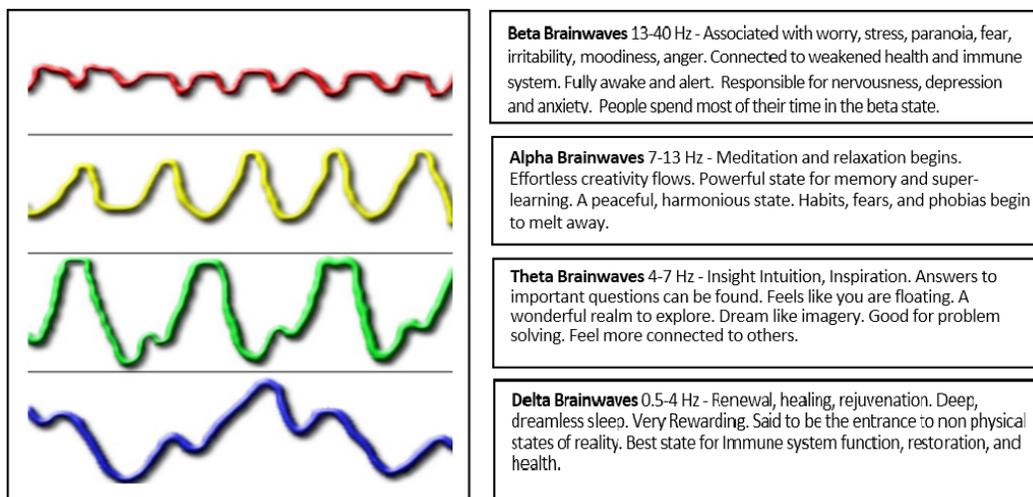


Fig 1: Normal adult brainwave patterns, corresponding frequency ranges and their associations

Brainwave Mapping

Various frequencies of the brainwaves induce various states of the mind as shown in the following figure. Mental noise can be understood in the context of this map and how to elevate the mind from Beta (or Alpha) to Delta state.

Women have noisier brain

Over the past couple of decades, some controversial research suggests that at any given moment, women have more activity in their brains than men. The *Corpus callosum* (that has a bundle of neural tissues) that connects the right and left hemispheres of the brain is larger in women, allowing for more movement across the hemispheres. This results in a frequent change in focus, finally leading to a “noisier brain”. Many studies have also revealed that women in sport tend to display more anxiety levels when compared to men in the same sport.

Overcoming Mental Noise

Switching off

It has been observed that ‘switching off’ the mind can bring on a state of inner peace. It is a state sought by spiritual traditions and teachings, and is useful to both spiritual seekers and people who wish to improve their life. One has to just ‘stop’ thinking, watch the mind and notice what happens, then practice ‘mental clearing’ by consciously stopping one’s thoughts for probably one minute. One now has to carefully pick out all the different sounds that is audible, then focus on noticing the details of a small area in front. Attention should be given to the breathing. The same routine should be followed the next day, but this time for two minutes. And gradually the time can be increased. The moment of peace should be enjoyed.

Being ‘in the Flow’

Focusing on the current process and not on goals, achievement etc. That is, when one is engaged in an interesting activity for its own sake and not for any other external purpose or goal.

Practice Mindfulness

It is, simply put, a non-judgmental focus of one's attention on the present event. This can be achieved by meditational practices. It's like strengthening a muscle. The more one practices, the stronger one becomes.

Being in control

Developing a sense that one can be in control of one’s actions; that is, a sense that one knows how to respond to whatever happens next.

Selective attention

It is the ability to ignore irrelevant sensory information, and to pay attention to relevant information. For highly skilled and trained athletes, the process of selective attention is very easy. For example, when skilled basketball players step up to the free throw line, they refuse to allow anyone or anything besides the actual task to distract their attention.

Mindful Breathing

For every athlete it is important to take a few minutes a day (in the morning or before engaging in an athletic event or exercise) to pay attention to his every breath, which can bring on a calm and clear state of mind.

Internal and External Messages

One has to carefully pay attention to the internal dialogue as well as the stories one tells family and friends, which can reflect — or even shape one’s mental state. Sometimes, on rare occasions, one might experience a brief period of inner peace, without mental noise. This happens involuntarily, when one’s attention is completely absorbed in some interesting activity or when watching a beautiful and inspiring landscape or picture. At these times one gets a short glimpse of inner peace.

Develop concentration ability

Many athletes often say that they meditate, but yet, cannot calm down their mind. Once the concentration gets stronger, one will be able to meditate without words, mental images, thoughts or any other aid. This is when the inner peace would gradually increase and deepen first while meditating, and then in one’s daily life, while working, reading, talking, etc.

Pre-performance routines

This is a very useful approach to increasing focus and concentration is through the use of pre-performance routines by giving the athletes something to focus on, assisting athletes relax by providing a sense of familiarity that helps remind them this is just another shot, innings, race, etc.,

Attentional Cues and Triggers

This can be very useful in improving athletes’ ability to concentrate. Task-related cues help athletes center their attention on the most appropriate focus within the task at hand. Depending on the sport, performance-relevant cues can include technique, tactics, the opponent, the score, time remaining, and many other cues.

There may be several other techniques that the coach or psychologist may be able to innovate on their own, depending on the sport as well as the athlete’s mental state. Proper guidance and therapy techniques could help reduce the mental noise and considerably increase sports performance.

Conclusion

Mental Noise is a rarely understood barrier to achievement in sports and other fields. Haunting thoughts of the past and worry about the future leaves the athlete unable to focus on the present. By proper mental training either by self or with the help of a sports psychologist, the athlete can try to overcome this problem.

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