



STUDY OF POSITIVE & NEGATIVE BIORHYTHMS PHASE ON AGGRESSION AMONG ATHLETES AND NON ATHLETES.

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ABSTRACT : The purpose of this study was to look at the aggression of athletes and non-athletes during positive and negative biorhythms. It was hypothesised based on the researcher's experience and knowledge that there would be a considerable difference in Aggression between athletes and non-athletes at positive and negative Biorhythms Phases. The subjects for the current study were chosen using a common sampling methodology known as simple random sampling. The subjects for this study were chosen from affiliated physical education colleges of Sant Gadge Baba Amravati University, Amravati. Standard questionnaire of Dr. Rajeev Lochan Bhardwaj's, which has 28 items, was used to collect data on Aggression Tendency. According to the study's findings, average levels of Aggression throughout both biorhythm stages, there was also a considerable variation in aggressiveness levels between the positive and negative biorhythm phases. The difference of 5.76% increase in aggression of non-athletic group suggests that the negative phase has a stronger influence on negative emotions like aggression. Positive and negative phase play a part in how these biorhythms affect people in general, and athletes may be less sensitive to their influence.

Keywords - Biorhythms, Negative Phase, Aggression, Athletes and Non-Athletes, Human Behavior, Physical Education.

I. INTRODUCTION

The natural, cyclical patterns of physiological and psychological processes that occur in living organisms, including humans, are referred to as biorhythms. (Langevin, R., 1991) These rhythms cover a wide range of aspects of our functioning, including sleep-wake cycles, hormonal fluctuations, and mood swings. While biorhythms can have an impact on our behaviour and overall well-being, it is important to remember that aggression is a complex phenomenon influenced by a variety of factors (Salonius-Pasternak & Gelfond, 2005). The direct effect of biorhythms on aggression is unknown, and research in this area is scarce.

It is also worth mentioning that the impact of biorhythms on aggression can vary greatly between individuals. Some people may be more susceptible to the influence of biorhythms on their emotional state and behavior, while others may not exhibit significant changes. Individual differences, personality traits, and environmental factors all play important roles in determining how biorhythms may manifest in behavior (Abdullah et.al. 2017). Additionally, biorhythms can affect mood and emotional regulation, which may have implications for aggression. Fluctuations in mood, such as feeling more irritable or experiencing heightened emotional states, could potentially contribute to an increased propensity for aggression. It is crucial to emphasise, however, that aggression is a complex behavior impacted by a variety of individual, social, and environmental factors (Langevin, R. 1991), and it cannot be linked entirely to biorhythms.

Sleep plays a crucial role in attention and cognitive processes. Sufficient and restorative sleep is generally associated with improved attention and concentration (Venter, R. E., 2012). When we experience quality sleep, our attention span tends to be longer, and we are better able to sustain focus on tasks (Cousins & Fernández, 2019).. Conversely, sleep deprivation or disruptions

in sleep patterns can impair attention and lead to reduced concentration and vigilance. Lack of sleep can make it more challenging to maintain attention for prolonged periods, and individuals may experience more frequent lapses in concentration.

II. The purpose of the study:

The purpose of this research was to examine the aggression of athletes and non-athletes during their positive and negative biorhythms phases.

III. Hypothesis:

Based on the researcher's experience and knowledge, it was hypothesised that there would be significant variation in Aggression between athletes and non-athletes at positive & negative Biorhythms Phase.

IV. Source of Data:

For the present study the source of data was affiliated physical education colleges of Sant Gadge Baba Amravati University, Amravati. A research become successful accompanied and supported by some reliable and authentic data. The data for the study is to be collected and statistical analysis and interpretation of data was done by using statistical technique 't' test.

V. Sampling Method:

The subjects for the present undertaken study were selected by a standard sampling technique called as simple random sampling method.

VI. Tools used for collection of data:

Aggression Questionnaire: The data pertaining to Aggression Tendency of athletes and non-athletes was collected via standard questionnaire prepared by Dr. Rajeev Lochan Bhardwaj, it contains 28 items.

VII. FINDINGS:

Each table displays the mean score of the athletes and non-athletes groups. The researcher can also find the standard deviation of the both of the groups, as well as their mean difference, in the table. The level of significance for the current study has been set at 0.05, and the degree of freedom is also considered while calculating the tabulated 't', which is then compared to the calculated 't'.

Table 1: Comparison of Aggression at positive & negative Biorhythms Phase between athletes and Non- athletes

Biorhythms Phase	Group	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Positive	Athletes	17.8	1.98	4.2	38	4.991	2.02
	Non- athletes	22	3.20				
Negative	Athletes	17.68	2.368	6.89	38	9.8461	2.02
	Non-athletes	24.57	2.046				

*Level of Significance = 0.05

Table-1 reveals that there is difference between mean of athletes and non-athletes, because athletes have a lesser mean of aggression in both condition 17.8 and 17.68 than non-athletes 22 and 24.57, and their mean difference is 4.2 and 6.89 respectively. The data is analysed using the 't' test to see whether there is a significant difference in aggression between athletes and non-athletes. Before applying the 't' test, the standard deviation for both groups is computed, which is for positive phase 1.98, 3.20 and 2.368, 2.046 respectively. After using the 't' test, it was discovered that there is a significant difference in the Aggression tendency between athletes and non-athletes because the calculated 't' 4.991 and 9.846 is greater than the tabulated 't' (2.02) at the 0.05 level of significance, indicating that there is a significant difference in Aggression between athletes and non-athletes during the positive and negative phase of biorhythms.

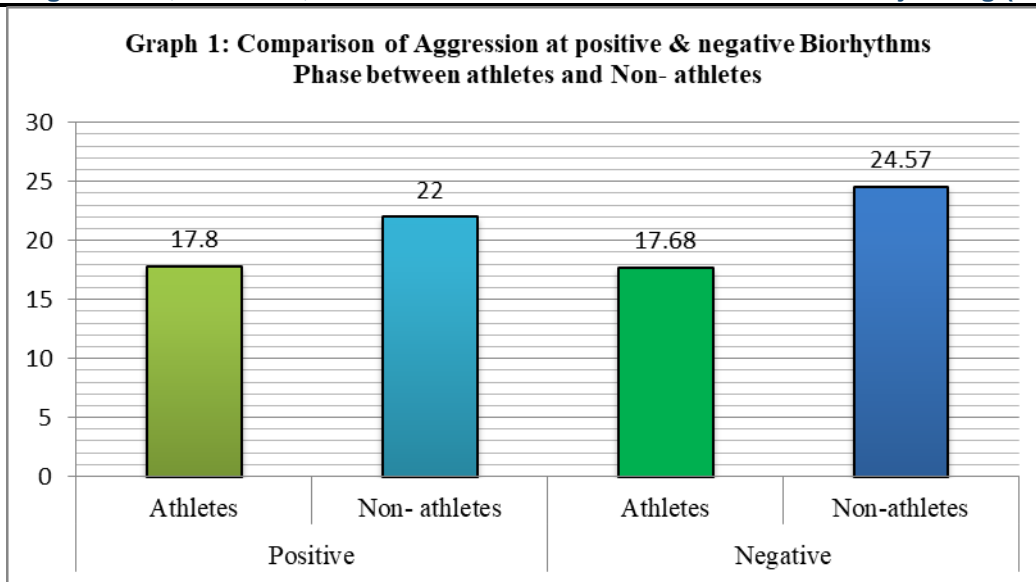
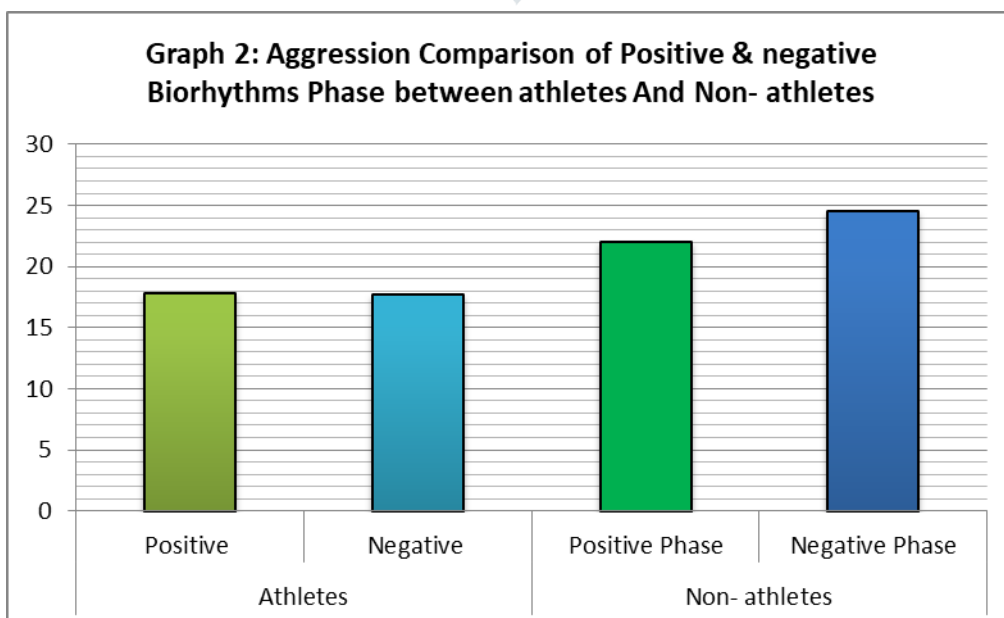


Table 2: Aggression Comparison of Positive & negative Biorhythms Phase between athletes And Non- athletes

Group	Biorhythms Phase	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Athletes	Positive	17.8	1.98	0.12	38	0.1739	2.02
	Negative	17.68	2.368				
Non- athletes	Positive Phase	22	3.20	2.57	38	3.026	2.02
	Negative Phase	24.57	2.046				

*Level of Significance = 0.05

Table-2 reveals that there is difference between mean of aggression in both condition Positive phase Athletes 17.8 and Negative phase athletes 17.68 than Positive phase Non- athletes 22 and Negative phase Non-athletes 24.57, and their mean difference is 0.12 and 2.57 respectively. The data is analysed using the 't' test to see whether there is a significant difference in aggression between Positive and negative phase of biorhythms. Before applying the 't' test, the standard deviation for both groups is computed, which is for positive phase 1.98, 2.368 and 3.20, 2.046 respectively. After using the 't' test, it was discovered that there is a significant difference in the Aggression tendency between athletes t is 0.1739 is lesser than the tabulated 't' (2.02) showing that there is a **not** significant difference in athletes Aggression between positive and negative phase of biorhythms. Negative non-athletes calculated 't' 3.026 is greater than the tabulated 't' (2.02) at the 0.05 level of significance, indicating that there is a significant difference in Aggression between positive and negative phase of biorhythms non-athletes during the positive and negative phase of biorhythms.



VIII. CONCLUSION:

According to the findings of the study, non-athletes exhibit average levels of aggression than during both phases of biorhythms. Furthermore, there was a significant difference in aggression levels during the positive and negative phases of biorhythms. This difference, however, was found to be insignificant on athletic group. The findings also show that in negative phase athletic group 10.55% more aggressive than during the positive phase of biorhythms and non-athletic group 16.31% more aggressive during the negative phase. Furthermore, the difference of 5.76% increase in aggression of non-athletic group suggests that the negative phase has a stronger influence on negative emotions like aggression.

IX. DISCUSSION:

The research findings reveal that non-athletes individuals exhibit higher levels of aggression compared to athlete's individuals during both phases of biorhythms. Additionally, a significant difference was observed in aggression levels between the positive and negative phases of biorhythms of non-athletic group. While biorhythms can influence our physiology, mood, and emotional regulation, their direct impact on aggression is now known. Aggression is a complex behavior that is influenced by a variety of factors (Salonius-Pasternak & Gelfond, 2005), and biorhythms may play only a minor role in athletic persons determining their tendencies. In general, positive and negative phase play a role in how these biorhythms affect people, and athletic people may be less sensitive to their influence.

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