Effect of yogic practices on selected physiological variables among postnatal care women

Jaheer Ahmed Shaik

Abstract
The purpose of the study was to investigate the effects of yogic practices on physiological variables among postnatal care women. To facilitate the study, 30 postnatal women were selected from various hospitals in Andhra Pradesh as subjects at random. In this study yogic practices were given to experimental group for the period of six weeks. The pre test was taken from the post natal mothers before administering the training. The subjects were involved with their training for a period of six weeks. The subjects were monitored throughout the sessions. At the end of the six weeks training post test with respect to Systolic and Diastolic Blood Pressure were measured by using the standardized tests and methods. The significant difference between the means of the experimental group and control group for the pre test and post test scores were determined by ‘t’ test. The level of significance was fixed at 0.05 level of confidence. It was concluded that systolic blood pressure and diastolic blood pressure of the experimental group showed significant decrease when compared to the control group.

Keywords: Yoga, physiological, postnatal, women

Introduction
Health care is the diagnosis, treatment and prevention of illness, injury and other physical and mental impairment of human being. Health care is delivered by allied health, dentistry, midwifery, medicine, optometry, nursing, pharmacy, psychology and other health profession. According to the WHO, Health care embraces all the goods and services designed to promote health, including preventive, curative and palliative interventions, whether directed to individuals or to populations. It is important that every woman should have access to knowledge, related to their health and fitness. It has proven that the waist size measurement is more then 35 inch (89 centimeter). This is more likely to develop heart diseases and other health-related problems. The word —yogal comes from the Sanskrit root yug, which means —union.1 In the spiritual sense, yoga means union of the mind with the divine intelligence of the universe. Yoga aims through its practices to liberate a human being from the conflicts of duality (body–mind), which exists in every living thing, and from the influence of the gunas, the qualities of universal energy that are present in every physical thing. (Universal energy has three qualities, known as gunas, that exist together in equilibrium: Sattva [purity]; Rajas [activity, passion, the process of change]; and Tamas [darkness, inertia]). Put forces and processes of life as a partner—coupled, rather than in conflict and unease with their own nature. On the broadest level yoga refers to the enormous body of spiritual values, attitudes, precepts and techniques that have been developed in India over three millennia that may be regarded as the very first foundation of the ancient Indian civilization (Feuerstein, 1989). Yoga is often presented as a complex of different paths leading to a common goal of union. Some paths or margas, include jnana yoga (spiritual knowledge), bhakthi yoga (devotion), karma yoga(action or selfless work), raja yoga(meditation), mantra (sound) and hatha yoga (purification of the body-mind). Yoga is practiced all over the world it produces consistent physiological changes and have sound scientific basis. The cardiovascular changes due to the process of ageing are being pre-poned over since the past few decades. One of the yoga practices, Hatha Yoga, is based on the knowledge, development, and balance of psychophysical energies in the body and can, therefore, be referred to as the —psychophysical yoga.
The three main elements used in Hatha Yoga to attain its purposes are the body, the physical part of man; the mind, the subtle part; and the element that relates the body with the mind in a special way, the breath. Hatha Yoga offers special techniques for each one of these elements. For the physical part, or body, it offers the asanas (—postures!), techniques for physical conditioning, called kriyas (—actions!), mudras (—seals!), bandhas (—locks!), as well as techniques for total and conscious physical relaxation. Although a small part of the practice of yoga, the capacity of kriyas, mudras, and bandhas to deepen awareness and consciousness should not be overlooked.

**Methods**
The purpose of the study was to investigate the effects of yogic practices on physiological variables among postnatal care women. To facilitate the study, 30 postnatal women were selected from various hospitals in Andhra Pradesh as subjects at random. In this study yogic practices were given to experimental group for the period of six weeks. The pre test was taken from the post natal mothers before administering the training. The subjects were involved with their training for a period of six weeks. The subjects were monitored throughout the sessions. At the end of the six weeks training post test with respect to Systolic and Diastolic Blood Pressure were measured by using the standardized tests and methods. The significant difference between the means of the experimental group and control group for the pre test and post test scores were determined by _t_ test. The level of significance was fixed at 0.05 level of confidence.

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>“t”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Pre test</td>
<td>15</td>
<td>143.73</td>
<td>7.914</td>
<td>1.173</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>15</td>
<td>139.2</td>
<td>6.504</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre test</td>
<td>15</td>
<td>147.5</td>
<td>6.197</td>
<td>9.645</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>15</td>
<td>127.15</td>
<td>5.077</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level of confidence

The data from the pre test and post test on blood pressure (systolic) levels of the control group and experimental group have been statistically analyzed using dependent _t_ test and the results are presented in the Table I. The table I shows that the pre test means of control group and experimental group were 143.73 and 147.5 respectively. The pre test standard deviation of the control group and the experimental group were 7.914 and 6.197 respectively. The obtained _t_ value 9.645 of the experimental group with respect to the blood pressure (systolic) levels was significantly higher than the required _t_ value (2.048) and it is proven that there is a significant difference in the blood pressure(systolic) levels of the experimental group.

Table I shows that the pre test mean and the post test mean of the experimental group were 147.5 and 127.15 respectively. The standard deviation of the pre test and the post test of the experimental group were 6.197 and 5.077 respectively. The obtained _t_ value 9.645 of the experimental group with respect to the blood pressure (systolic) levels was significantly higher than the required _t_ value (2.048) and it is proven that there is a significant difference in the blood pressure (systolic) levels of the experimental group. The obtained mean values in pre-test and post-test values of control group and the experimental group are represented through bar diagram figure for better understanding of the results.

![Bar diagram showing post test and pre test values of control group and experimental group on systolic blood pressure.](image)

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>“t”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Pre test</td>
<td>15</td>
<td>84.6</td>
<td>2.87</td>
<td>1.027</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>15</td>
<td>83.46</td>
<td>3.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre test</td>
<td>15</td>
<td>83.13</td>
<td>1.922</td>
<td>4.599</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>15</td>
<td>76.46</td>
<td>2.41</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level of confidence

The data from the pre test and post test on blood pressure (diastolic) levels of the experimental group and the control group have been statistically analyzed using dependent _t_ test and the results are presented in the Table II. Table II shows that the pre test means of control group and the experimental group were 84.6 and 83.13 respectively. The pre test standard deviation of the control group and the experimental group were 2.87 and 1.922 respectively. The obtained mean values in pre test and post test values of control group and the experimental group are represented through bar diagram figure for better understanding of the results.
test means of control group and the experimental group were 83.46 and 79.46 respectively. The post test standard deviation of the control group and experimental group were 3.15 and 2.41 respectively.

Table VI shows that the pre test mean and the post test mean of the experimental group were 83.13 and 79.46 respectively. The standard deviation of the pre test and post test of the experimental group were 1.922 and 2.41 respectively. The obtained \( t \) value 4.599 of the experimental group with respect to the blood pressure (diastolic) levels was significantly higher than the required \( t \) value (2.048) and it is proven that there is a significant difference in the blood pressure (diastolic) levels of the experimental group. The obtained mean values in pre-test and post-test values of control group and the experimental group are represented through bar diagram figure for better understanding of the results.

**Fig 2:** Bar diagram showing post test and pre test values of control group and experimental group on diastolic blood pressure

**Conclusion**

Within the limitation of the present study, the following conclusions were drawn:

1. It was concluded that systolic blood pressure and diastolic blood pressure of the experimental group showed significant decrease when compared to the control group.
2. Diastolic Blood pressure of the experimental group showed significant decrease when compared to the control group.

**References**

5. Gala’s yoga for Yogasana and Pranayama for health by Dr. P.D. Sharma: Navneet publications limited, 2000.
11. He J, Klag MJ, Whelton PK, Chen JU, Qian MC, He GQ.