Effectiveness of Figure of Eight walking on reduction of blood pressure among hypertensive clients

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ABSTRACT
Hypertension is a crucial problem in developing countries where there is without treatment; it leads to serious and life-threatening causes. Hypertension is an “iceberg” disease. The current investigation intends to decide the adequacy of the figure of eight on the reduction of blood pressure among hypertensive clients. A Pre experimental one group pretest post-test design was used with (60) hypertensive client who falls into the inclusion criteria was selected by using purposive sampling technique which 30 in the experimental group and 30 in the control group. The demographic data and the structured questionnaires were collected in both the groups followed by that the pretest was conducted on 1st two days and after that, the intensity level of blood pressure in both the groups was assessed by using a sphygmomanometer (systole/diastole). Only in the experimental group the post-test (Level of Blood pressure) was evaluated on the 5th day. The investigation shows that in the pretest of the experimental group, 15 (50%) had stage I hypertension, 14 (46.67%) had stage II hypertension and 1 (3.33%) had prehypertension. Whereas in the post-test, 21 (70%) had prehypertension, 8 (26.67%) had stage I hypertension and only 1 (3.33%) had stage II hypertension. Thus, the study proves that figure of eight walking can be used as an effective nursing intervention for reducing the blood pressure among the hypertensive clients and it is an easily applicable technique and also causes effective method with no side effects.

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INTRODUCTION
Hypertension, otherwise called high or raised circulatory strain, is a condition wherein the veins have diligently raised pressure. Blood is conveyed from the heart to all pieces of the body in the vessels. (Börjesson et al., 2016) Each time the heart pulsates; it siphons blood into the vessels. Circulatory strain is made by the power of blood pushing against the dividers of veins (supply routes) as it is siphoned by the heart. (Corrao et al., 2011) The higher the weight, the harder the heart needs to siphon. Hypertension is a huge general ailment in light of its high power all around the world. (Ettehad et al., 2016) Around 7.5 million passing’s or 12.8% of them all out of all yearly passing’s overall happen because of high blood pressure. (Frisoli et al., 2011) Raised circulatory strain is a significant danger factor for constant coronary illness, stroke, and coronary illness. (Grazzi et al., 2017) Raised BP is emphatically related to the danger of stroke and coronary illness. (Hanson and Jones, 2015) Other than coronary
heart disease and stroke, its inconveniences incorporate cardiovascular breakdown, fringe vascular illness, renal impairment, retinal drain, and visual disability. (Crowley et al., 2013)

Figure of eight walking: Walking is perhaps the best exercise and will keep up great wellbeing. (Murtagh et al., 2015) We should stroll with a free brain with no interruption. (Kim et al., 2014) In this advanced world morning walk is turning out to be style and a significant number of individuals walk talking with companions face to face or through versatile. (Ademe et al., 2019) Among the strolling exercise is “8 shape walk strategy”. This is probably the best techniques which give extraordinary advantages as proposed by the yogis and siddhars. It should be drilled day by day for 15-30 minutes.

In the event that we stroll in the eight shape line, we will keep up great wellbeing. We will see the technique for eight walks, how it ought to be done appropriately, and what all the advantages are. Among the strolling works out, the best exercise is “8 shape walk strategy”. This is perhaps the best strategy which gives marvelous advantages. It should be rehearsed day by day for 15-30 minutes. (Bilal et al., 2015) The current investigation intends to decide the adequacy of a figure of eight on the reduction of blood pressure among hypertensive clients in community areas.

MATERIALS AND METHODS

The study was conducted at Mappedu village; a quantitative approach with the quasi-experimental design was adopted. The data was collected by using purposive sampling technique from 60 hypertensive clients, among which 30 investigation members in study gathering and 30 in control gathering. The exclusion criteria for the study where Client who are affected with co-morbid illness, Client who has hypertension and don’t do any exercise. The purpose of the study was explained by the investigator to each of the study participants and written informed consent was obtained. The demographic data and the structured questionnaires were collected, followed by that the pretest was conducted on 1st two days and after that, the intensity level of blood pressure in both the groups was assessed by using a sphygmomanometer (systole/diastole) only in the experimental group. The post-test was conducted on the 5th day and the level of blood pressure was assessed by using the sphygmomanometer (systole/diastole) in both experimental and control group. The data were analyzed using descriptive and inferential statistics.

RESULTS AND DISCUSSION

Frequency and percentage distribution of demographic variables

The results show that in the experimental group, most of them (11(36.7%) were in the age group of 36 – 45 years and 46 – 55 years, 18(60%) were female, 13(43.3%) were Muslims, 11(36.7%) had high school education and were degree holders, 13(43.3%) were non-vegetarian, 12(40%) had an income of Rs.5000 – 7500, 18(60%) had the habit of smoking, chewing tobacco, 11(36.7%) had a sedentary type of physical activity, 17(56.7%) were married and 17(56.7%) were living in rural area. Whereas in the control group, most of them 13(43.3%) were in the age group of 25 – 35 years, 18(60%) were female, 14(46.6%) were Muslims, 12(40%) had high school education, 13(43.3%) were non-vegetarian, 12(40%) had an income of Rs.5000 – 7500, 18(60%) had the habit of consuming alcohol, 11(36.7%) were not doing exercise, 15(50%) were married and 18(60%) were living in rural area.

Table 1 shows that in the pretest of the experimental group, 15(50%) had stage I hypertension, 14(46.67%) had stage II hypertension and 1(3.33%) had prehypertension. Whereas in the post-test, 21(70%) had prehypertension, 8(26.67%) had stage I hypertension and only 1(3.33%) had stage II hypertension.

The table also portrays that in the pretest and post test of a control group, 23(76.66%) had stage II hypertension, 5(16.67%) had stage I hypertension and only 2(6.67%) had prehypertension. (Figure 1)

![Figure 1: Percentage distribution of level of blood pressure (Systolic BP) among hypertensive clients](image)

Table 2 shows that in the pretest of the experimental group, 25(83.33%) were normal and 5(16.67%) had prehypertension whereas in the post-test, 29(96.67%) were normal and only 1(3.33%) had prehypertension.
Table 1: Frequency and percentage distribution of the level of blood pressure (Systolic BP) among hypertensive clients N = 60

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>Normal (&lt;120)</th>
<th>Prehypertension (120 – 139)</th>
<th>Stage I Hypertension (140 – 159)</th>
<th>Stage II Hypertension (≥160)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>Experimental</td>
<td>Pretest</td>
<td>0</td>
<td>1</td>
<td>3.33</td>
<td>15</td>
</tr>
<tr>
<td>Group</td>
<td>Post Test</td>
<td>0</td>
<td>21</td>
<td>70.0</td>
<td>8</td>
</tr>
<tr>
<td>Control</td>
<td>Pretest</td>
<td>0</td>
<td>2</td>
<td>6.67</td>
<td>5</td>
</tr>
<tr>
<td>Group</td>
<td>Post Test</td>
<td>0</td>
<td>2</td>
<td>6.67</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 2: Frequency and percentage distribution of the level of blood pressure (Diastolic BP) among hypertensive clients N = 60

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>Normal (&lt;80)</th>
<th>Prehypertension (80 – 89)</th>
<th>Stage I Hypertension (90 – 99)</th>
<th>Stage II Hypertension (≥100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>Experimental</td>
<td>Pretest</td>
<td>25</td>
<td>5</td>
<td>16.67</td>
<td>0</td>
</tr>
<tr>
<td>Group</td>
<td>Post Test</td>
<td>29</td>
<td>1</td>
<td>3.33</td>
<td>0</td>
</tr>
<tr>
<td>Control</td>
<td>Pretest</td>
<td>28</td>
<td>2</td>
<td>6.67</td>
<td>0</td>
</tr>
<tr>
<td>Group</td>
<td>Post Test</td>
<td>29</td>
<td>1</td>
<td>3.33</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3: Effectiveness of figure of 8 walking on the reduction of blood pressure in the experimental group N = 30

<table>
<thead>
<tr>
<th>Variables</th>
<th>Test</th>
<th>Mean</th>
<th>S.D</th>
<th>Paired ‘t’ Test Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic BP</td>
<td>Pretest</td>
<td>149.67</td>
<td>12.73</td>
<td>t=6.056 p=0.0001</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>127.00</td>
<td>12.08</td>
<td>S***</td>
</tr>
<tr>
<td>Diastolic BP</td>
<td>Pretest</td>
<td>64.0</td>
<td>8.55</td>
<td>t=0.867 p=0.393</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>62.33</td>
<td>5.04</td>
<td>N.S</td>
</tr>
</tbody>
</table>

*p<0.001, S — Significant

The table also depicts that in the pretest of a control group, 28(83.33%) were normal and 2(6.67%) had prehypertension whereas in the post-test, 29(96.67%) were normal and only 1(3.33%) had prehypertension. Table 3 portrays that the pretest mean score of systolic BP was 149.67±12.73 and the post test mean score was 127.0±12.08. The determined matched ‘t’ test estimation of t = 6.056 was discovered to be factually exceptionally critical at p<0.001 level. The pretest mean score of diastolic BP was 64.0±8.55 and the post test mean score was 62.33±5.04. The determined combined ‘t’ test estimation of t = 0.867 was not discovered to be factually critical. The current examination upheld by Mandini et al. (2020) the examination has looked at the impacts of a program of guided strolling (GW) and of a program of proposed strolling (SW) on the circulatory strain and on the way of life of inactive hypertensive subjects.

The two projects brought about critical decreases in systolic and diastolic weight. The decrease of systolic weight was altogether higher in the subjects who followed the GW program. The GW program was likewise more compelling than the SW program in adjusting the way of life of the participants. The above finding plainly gathers that figure of 8 walking on a decrease of BP controlled to hypertensive patients in the study group was discovered to be successful in improving the BP among hypertensive patients than the control group who had gone through typical clinic routine measures.

CONCLUSIONS

Figure of eight walking is a compelling and simple strategy to hypertension. From the aftereffect of
the investigation, it was inferred that figure of eight walking assists with diminishing the pulse among hypertensive patients. From the aftereffects of the examination, it was inferred that figure of eight had no results and it a simple and agreeable strategy, which can be polished for quite a while to diminish hypertension.

Conflict of Interest
The authors declare that they have no conflict of interest for this study.

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REFERENCES


