

A Study to Assess the Effectiveness of Information Booklet on Brisk Walking Among Hypertensive Patient in Selected Area.

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Abstract—Hypertension is one of the most common non-communicable diseases and a major global public health problem. It is often referred to as a “silent killer” because it usually presents with no warning symptoms while gradually damaging vital organs such as the heart, brain, kidneys, and blood vessels. Persistent elevation of blood pressure increases the risk of serious complications including coronary artery disease, stroke, heart failure, renal failure, and peripheral vascular disease. According to the World Health Organization, hypertension affects more than one billion people worldwide and is a leading cause of premature mortality. In India, the prevalence of hypertension is steadily increasing due to rapid urbanization, sedentary lifestyle, unhealthy dietary habits, stress, obesity, and lack of physical activity. Many individuals remain undiagnosed, untreated, or inadequately controlled, which further increases the burden on families and the healthcare system. Hypertension is defined as a persistent increase in systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg. It can be classified as primary (essential) hypertension, which has no identifiable cause, and secondary hypertension, which results from underlying medical conditions. A nationally representative study in India examined the hypertension care cascade among adults aged 15–49 years, highlighting critical gaps in diagnosis, treatment, and control. The study analysed data from over 731,000 participants and found a hypertension prevalence of 18.1%. Among hypertensive individuals, 76.1% had been screened, 44.7% were aware of their diagnosis, 13.3% were on treatment, and only 7.9% had controlled blood pressure. Significant disparities were noted across states and sociodemographic groups, with men, rural residents, individuals from lower wealth quintiles, and unmarried persons experiencing greater losses at each care step. States like Nagaland had extremely low control rates (2.4%), while Daman and Diu reported up to 21%. The findings underscore the urgent need for targeted, state-

specific interventions and improved access to hypertension care, especially in underprivileged populations. The study also highlights a gap in data for adults aged 50 and above, where hypertension is even more prevalent.

Objectives Of the Study Primary Objective • To evaluate the effectiveness of an information booklet on enhancing knowledge of brisk walking among hypertensive patients in a selected area.

Secondary Objectives • To assess the pre-intervention knowledge of hypertensive patients regarding the importance of brisk walking in blood pressure management. • To assess the post-intervention knowledge of hypertensive patients after receiving the information booklet. • To find the association between the post-test knowledge score regarding brisk walking among hypertensive patients and selected demographic variables. Quantitative Research Approach was selected a study to assess the effectiveness of information booklet on brisk walking among hypertensive patient in selected area. A pre-experimental one-group pre-test–post-test research design was used in a study to assess the effectiveness of information booklet on brisk walking among hypertensive patient in selected area.

Result The overall mean pre-test and post-test knowledge scores of subjects which reveals that post-test mean knowledge score was higher 27.59 with SD of ± 2.976 when compared with mean pre-test knowledge score which was 9.33 with SD of ± 4.356 . The statistical Student’s paired ‘t’ test was applied at 5% level of significance. The tabulated value for $n = 70 - 1$ i.e. 69 Degree of freedom was 69 is that 2.000. The calculated value i.e. 28.462 was much higher than the tabulated value at 5% level of significance. For overall knowledge score of subjects which was statically acceptable level of significance.

Conclusion After the detailed analysis, this study led to the following conclusion is it was statistically interpreted that effectiveness of post-test knowledge score on

information booklet brisk walking among hypertensive patients in selected area.

I. INTRODCUTION

Hypertension is one of the most common non-communicable diseases and a major global public health problem. It is often referred to as a “silent killer” because it usually presents with no warning symptoms while gradually damaging vital organs such as the heart, brain, kidneys, and blood vessels. Persistent elevation of blood pressure increases the risk of serious complications including coronary artery disease, stroke, heart failure, renal failure, and peripheral vascular disease.¹ According to the World Health Organization, hypertension affects more than one billion people worldwide and is a leading cause of premature mortality. In India, the prevalence of hypertension is steadily increasing due to rapid urbanization, sedentary lifestyle, unhealthy dietary habits, stress, obesity, and lack of physical activity. Many individuals remain undiagnosed, untreated, or inadequately controlled, which further increases the burden on families and the healthcare system. Hypertension is defined as a persistent increase in systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg. It can be classified as primary (essential) hypertension, which has no identifiable cause, and secondary hypertension, which results from underlying medical conditions. It can enhance knowledge, improve attitudes, and promote positive health behaviours. Providing an information booklet on brisk walking may empower hypertensive patients to adopt regular physical activity as part of their daily routine, thereby improving blood pressure control and reducing complications. Nurses play a vital role in health education, prevention, and health promotion. By educating patients about lifestyle modifications such as brisk walking, nurses can significantly contribute to better disease management and improved quality of life.³ Assessing the effectiveness of an information booklet will help determine whether structured educational intervention leads to measurable improvement in patients’ knowledge and practice. The burden of hypertension is not limited to individual health. It also places a heavy economic strain on families and healthcare systems due to long-term medication use, frequent hospital visits, diagnostic procedures, and

management of complications. Furthermore, hypertension affects individuals during their most productive years, leading to decreased work capacity and economic loss. Therefore, prevention, early detection, and effective management are crucial in controlling the growing epidemic of hypertension. A nationally representative study in India examined the hypertension care cascade among adults aged 15–49 years, highlighting critical gaps in diagnosis, treatment, and control. The study analysed data from over 731,000 participants and found a hypertension prevalence of 18.1%. Among hypertensive individuals, 76.1% had been screened, 44.7% were aware of their diagnosis, 13.3% were on treatment, and only 7.9% had controlled blood pressure. Significant disparities were noted across states and sociodemographic groups, with men, rural residents, individuals from lower wealth quintiles, and unmarried persons experiencing greater losses at each care step. States like Nagaland had extremely low control rates (2.4%), while Daman and Diu reported up to 21%. The findings underscore the urgent need for targeted, state-specific interventions and improved access to hypertension care, especially in underprivileged populations. The study also highlights a gap in data for adults aged 50 and above, where hypertension is even more prevalent.

II. OBJECTIVES OF THE STUDY

Primary Objective

- To evaluate the effectiveness of an information booklet on enhancing knowledge of brisk walking among hypertensive patients in a selected area.

Secondary Objectives

- To assess the pre-intervention knowledge of hypertensive patients regarding the importance of brisk walking in blood pressure management.
- To assess the post-intervention knowledge of hypertensive patients after receiving the information booklet.
- To find the association between the post-test knowledge score regarding brisk walking among hypertensive patients and selected demographic variables.

III. MATERIALS AND METHOD

A Quantitative Research Approach was selected a study to assess the effectiveness of information booklet on brisk walking among hypertensive patient in selected area. Pré-experimental one-group pre-test–post-test research design was used in a study to assess the effectiveness of information booklet on brisk walking among hypertensive patient in selected area. The study was conducted in Selected Area. The rationale for selecting this setting was a lack of knowledge among hypertensive patient, administrative approval, co-operation and availability of subjects. Purposive sample technique is a non-probability sampling technique in which the researcher intentionally selects participants who possess specific characteristics or qualities relevant to the purpose of the study. The 70 participants who were available during the period of data collection were the sample for the study as mentioned in the inclusion criteria.

IV. RESULT

Section A Distribution of subjects in relation to their demographic variables.

Table: Distribution of subjects in relation to their demographic variable.

(n=70)

Demographic Variables	Frequency (f)	Percentage (%)
Age in Years		
30 – 40 Years	24	34.3
41 – 50 Years	21	30

Distribution of subjects in relation to their pre-test and post-test knowledge regarding brisk walking among hypertensive patient in selected area.

(n=70)

Level of knowledge score	Score Range	Percentage score	Pre-test Knowledge Score		Post-test Knowledge Score	
			Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Poor	0-6	0-20%	22	31.4	00	00
Good	7-12	21-40%	36	51.4	00	00
Average	13-18	41-60%	08	11.5	00	00
Very Good	19-24	61-80%	04	5.7	12	17.1
Excellent	25-30	81-70%	00	00	58	82.9
Mean $\pm$ SD knowledge score			9.33 $\pm$ 4.356		27.59 $\pm$ 2.976	
Mean % knowledge score			31.10%		91.95%	
Minimum score			03		19	
Maximum score			24		30	

51 – 60 Years	24	34.3
Above 60 Years	01	1.4
Gender		
Male	37	52.9
Female	33	47.1
Others	00	00
Educational Qualification		
Primary School	09	12.9
High School	45	64.2
Graduate and above	16	22.9
Occupation		
Private	19	27.1
Government	26	37.1
Home Makers	22	31.4
Retired	03	4.4
Duration of Hypertension		
Less than 1 Year	03	4.3
1 – 3 Years	40	57.1
4 – 6 Years	22	31.5
More than 6 Years	05	7.1
Engage in Regular Physical Activity		
Yes Often	26	37.1
No	44	62.9
Aware of the Benefits of Brisk Walking for Hypertension		
Yes	44	62.9
No	26	37.1

Section B

Assessment Of Pre-Test and Post-Test Knowledge Regarding Brisk Walking Among Hypertensive Patient in Selected Area.

Section C Analysis of Effectiveness of Information Booklet on Knowledge Regarding Brisk Walking Among Hypertensive Patient in Selected Area.

Significance of difference between knowledge scores in pre-test and post-test.

(n=70)

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	9.33	4.356	18.26 ±	28.462	0.0001 S. P<0.05
Post-Test	27.59	2.976	5.367		
P<0.05 level			*significant		

Section D Association of Post-Test Knowledge Score Regarding Brisk Walking Among Hypertensive Patient In Selected Area with Selected Demographic Variables

Table 4.4: Association of knowledge score in relation to their age in years.

n=70

Age in Years	No. of subjects	Poor	Average	Good	Very Good	Excellent	χ ² -value p-value
30–40 Years	24	0	0	0	3	21	5.548 df=3 0.136 NS, P>0.05
41–50 Years	21	0	0	0	3	18	
51–60 Years	24	0	0	0	5	19	
Above 60 Years	01	0	0	0	1	0	
S- Significant		NS- non-significant		df-degree of freedom			

Table 4.5: Association of knowledge score in relation to their gender.

n=70

Gender	No. of subject s	Poor	Average	Good	Very Good	Excellent	χ ² -value p-value
Male	37	0	0	0	8	29	1.108 df=1 0.292 NS, P>0.05
Female	33	0	0	0	4	29	
Others	00	0	0	0	0	0	
S- Significant		NS- non-significant			df-degree of freedom		

Table 4.6: Association of knowledge score in relation to their educational qualification.

n=70

Educational Qualification	No. of subjects	Poor	Average	Good	Very Good	Excellent	χ ² -value p-value
Primary School	09	0	0	0	3	6	3.010 df=2 0.222 NS, P>0.05
High School	45	0	0	0	8	37	
Graduate and above	16	0	0	0	1	15	
S- Significant		NS- Non-Significant			df-degree of freedom		

Table 4.7: Association of knowledge score in relation to their occupation.

n=70

Occupation	No. of subjects	Poor	Average	Good	Very Good	Excellent	χ ² -value p-value
Private	19	0	0	0	2	17	3.148

Government	26	0	0	0	7	19	df=3 0.369 NS, P>0.0 5
Home Makers	22	0	0	0	3	19	
Retired	03	0	0	0	0	3	
S- Significant		NS- non-significant			df-degree of freedom		

Table 4.8: Association of knowledge score in relation to their duration of hypertension.

n=70							
Duration of Hypertension	No. of subject s	Poor	Average	Goo d	Very Good	Excellent	κ2-value p-value
Less than 1 Year	03	0	0	0	1	2	0.776 df=3 0.855 NS, P>0.0 5
1 – 3 Years	40	0	0	0	7	33	
4 – 6 Years	22	0	0	0	3	19	
More than 6 Years	05	0	0	0	1	4	
S- Significant		NS- non-significant		df-degree of freedom			

Table 4.9: Association of knowledge score in relation to their engage in regular physical activity.

n=70							
Engage in Regular PhysicalActivity	No. of subject s	Poor	Averag e	Good	Very Good	Excellen t	χ2-value p-value
Yes Often	26	0	0	0	7	19	2.785 df=1 0.095 NS, P>0.05
No	44	0	0	0	5	39	
S- Significant		NS- non-significant			df-degree of freedom		

Table 4.10: Association of knowledge score in relation to their aware of the benefits of brisk walking for hypertension.

n=70							
Aware of the Benefits of Brisk Walking for Hypertension	No. of subjects	Poor	Average	Good	VeryGood	Excellent	χ2-value p-value
Yes	44	0	0	0	9	35	df=1 0.339 NS, P>0.05
No	26	0	0	0	3	23	
S- Significant		NS- Non-Significant			df-degree of freedom		

V. CONCLUSION

In Pre-Test, Majority 51.4% of subjects had good level of knowledge score, 31.4% had poor level of knowledge score, 11.5% had average level of knowledge score, 5.7% had very good level of knowledge score and 0% had excellent level of knowledge score. Mean knowledge score in pre-test of the subjects was 9.33 ± 4.356 . Minimum knowledge score in pre-test was 03 and Maximum Knowledge score in pre-test was 24. While in Post-Test, Majority 82.9% of subjects had excellent level of knowledge

score, 17.1% had very good level of knowledge score and 0% had poor, good and average level of knowledge score. Mean knowledge score in post-test of the subjects was 27.59 ± 2.976 . Minimum knowledge score in post-test was 19 and Maximum Knowledge score in post-test was 30. The overall mean pre-test and post-test knowledge scores of subjects which reveals that post-test mean knowledge score was higher 27.59 with SD of ± 2.976 when compared with mean pre-test knowledge score which was 9.33 with SD of ± 4.356 . The statistical Student's paired 't' test was applied at 5% level of significance. The tabulated

value for $n = 70 - 1$ i.e. 69 Degree of freedom was 69 is that 2.000. The calculated value i.e. 28.462 was much higher than the tabulated value at 5% level of significance. For overall knowledge score of subjects which was statically acceptable level of significance. Hence, it was statistically interpreted that information booklet on knowledge regarding brisk walking among hypertensive patient in selected area was effective.

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