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Impact Of Iec Interventions On Blood Pressure Knowledge And Attitude Among Hypertensive Clients In Bhawani Patna, Odisha

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ABSTRACT:

This study examines how well information, education, and communication (IEC) interventions work to improve the knowledge and attitudes of patients with primary hypertension at D.H.H. Bhawani Patna, Odisha, regarding blood pressure treatment. Purposive sampling was used to pick a total of 100 participants using a quasi-experimental methodology. Before and after the intervention, which included educational sessions centered on managing hypertension, data were gathered using standardized questionnaires. With p-values less than 0.001 for each component, pre- and post-intervention analyses showed that participants' knowledge and attitudes had significantly improved. Understanding the causes of hypertension, risk factors, lifestyle changes, medication adherence, and the significance of routine monitoring all showed notable improvements. Additionally, participants showed a stronger dedication to properly controlling their disease. These results demonstrate the critical role that educational interventions play in empowering people with hypertension and the potential for comparable approaches to improve the treatment of chronic diseases in a range of healthcare settings.

Keywords: Information, Education, and Communication (IEC), Blood pressure management, Primary hypertension, Knowledge improvement, Attitude enhancement.

INTRODUCTION:

If left untreated, hypertension can lead to major issues that affect many different organs and systems in the body. An example of this would be the stress that excessive pulse places on the heart, which can lead to conditions like coronary supply channel disease and cardiovascular failure. It is also a major risk factor for stroke-related entanglements since it may damage the blood vessels in the brain or contribute to the formation of blood clots. Similarly, over time, hypertension may reduce kidney function, which could lead to an increased risk of renal infection and subsequent kidney failure. Damage to the veins in the eyes is one

possible consequence of hypertension, which could result in vision problems or even visual impairment.

In order to effectively control hypertension, a multifaceted approach is necessary. Making lifestyle changes is frequently the first line of defense. Changing to a healthy diet (like the DASH diet), exercising frequently, maintaining a healthy weight, cutting back on salt, consuming less alcohol, and quitting smoking are a few examples of these changes. However, for a remarkable number of people, lifestyle modifications might not be enough to control pulse; in certain situations, medication may be necessary. Although there are many different kinds of antihypertensive drugs available, the age, general health, and presence of other medical conditions of the patient are all significant factors to take into account.

Regular blood pressure checks are recommended for people with hypertension or those who are at risk of developing it. As a result, healthcare providers can assess the therapy's effectiveness and make any necessary adjustments. By effectively controlling their hypertension through lifestyle modifications, medication, and regular condition monitoring, people can significantly reduce their risk of complications and enhance their general health and quality of life. Collaboration between patients and healthcare professionals is essential for creating customized treatment plans that are appropriate for each person's unique needs and circumstances.

The clinical condition known as hypertension, which is more commonly referred to as hypertension, is a persistent illness that affects a large number of people worldwide. It is the primary cause of depression and death on a broad scale due to its substantial risk for cardiovascular diseases, such as stroke, coronary episodes, and cardiovascular breakdown. Treatment for hypertension is actually required to reduce the severity of these risks and improve overall health outcomes.

LITERATURE REVIEW:

Ireland et al. (2010) To address the issue of needing to improve risk factor outcomes, those with uncontrolled hypertension were identified. To determine the viability of a long-term nurture case using the board care conveyance model and mental, self-viability, and adherence factors that are predictive of blood pressure targets not being met, pilot research was conducted. A member test consisting of twenty clients was used to guide the review. Drugs designed to improve adherence were paired with self-administration techniques and persuasive speech. These interventions included rearranging medication schedules, setting up memory aids, installing hardware for self-checking at home, providing guidance, and

conducting a six-month nurturing follow-up. At six months, a selection of clients who had been identified as having a high risk of stroke and not achieving the desired treatment outcomes showed significant drops in blood pressure along with improvements in drug self-viability and adherence.

McGrady (2010) claimed that the metabolic syndrome was more likely to develop in people with a genetic predisposition, chronic stress, negative emotions, and unhealthy lifestyle choices. Given the psycho-physiologic basis of the majority of these traits, biofeedback, relaxation, and other psycho-physiologic therapies have been studied and used in patients with metabolic syndrome characteristics, specifically diabetes and hypertension. The study looked at the evidence and theory underlying biofeedback as a treatment for diabetes and hypertension, two illnesses for which several trials have shown beneficial reductions in blood pressure and blood glucose. The researcher claims that biofeedback-based blood pressure lowering is especially effective for people with pre-hypertension.

Henriques et al. (2011) carried out to find out if a computer-based heart rate variability biofeedback program can help college students who are experiencing anxiety or depression. Nine extremely anxious students participated in pilot research that used the program for four weeks and reported significant improvements in their anxiety and mood. The results were replicated in a second trial with a sample size of thirty-five participants that employed an immediate vs. delayed treatment technique, even though the degree of the influence was not nearly as substantial.

Agte et al. (2011) investigated the effects of practicing Sudarshan Kriya Yoga for two months as a supplemental treatment in an open-label intervention study involving thirty-six healthy individuals and twenty-six persons with moderate hypertension between the ages of thirty and sixty. As markers of oxidative stress, there was a significant decrease in diastolic blood pressure ($P < 0.01$), serum urea ($P < 0.01$), and plasma MDA (malondialdehyde adducts) among the hypertensive people ($P < 0.05$). The bulk of the research parameters were found to follow a pattern of change, with values within the normal range remaining constant and those above the normal range decreasing.

Hänsel & Känel (2012) gave a narrative summary that focused on the concept of stress in the modern world and the factors affecting how much blood pressure varies following a psychosocial stressor. Blood pressure, cognition, personality, work situation, social support, and marital status were among the pertinent psychosocial factors that were discussed. It also discussed how well cognitive-behavioral

therapy and relaxation techniques work to reduce blood pressure. They concluded that stressors and psychological factors could cause blood pressure to rise, and that, in terms of available treatments, cognitive-behavioral therapies combined with individually designed relaxation techniques can make a clinically meaningful contribution to effective blood pressure management.

RESEARCH METHODOLOGY:

1. Study Design:

A pre- and post-intervention quasi-experimental design was used in the study to evaluate how well information, education, and communication (IEC) packages affected the knowledge and attitudes of clients with primary hypertension about blood pressure management.

2. Participants:

Adult patients with primary hypertension were the study's target population. People who were 30 years of age or older met the inclusion criteria, but those who had serious cognitive impairments or secondary hypertension were not. For the study, a total of 100 individuals were gathered.

3. Sampling Method:

To ensure that the focus was on those who would most benefit from hypertension management instruction, a purposeful sample strategy was used to choose participants from the hospital's outpatient department.

4. Data Collection Tools:

Structured questionnaires intended to assess attitudes and knowledge regarding blood pressure control were used to gather data. The knowledge evaluation and the attitude assessment were the two primary parts of the questionnaire. Questions about the causes of hypertension, risk factors, lifestyle changes, medication adherence, and the significance of routine monitoring were all included of the knowledge assessment. The attitude test gauged participants' views on blood pressure monitoring, regular exercise, dietary changes, medication adherence, and their belief in controlling hypertension.

5. Data Analysis:

Statistical software, such as SPSS, was used to examine the data. Pairwise t-tests were used to compare the mean knowledge and attitude scores before and after the intervention. To evaluate the success of the intervention, the percentage increase in knowledge and attitude scores across various demographic groups was computed.

DATA ANALYSIS:

1. Knowledge on Hypertension:

Table 1: Pre- and Post-Intervention Knowledge Scores on Blood Pressure Management

Knowledge Component	Pre-Intervention Mean Score (SD)	Post-Intervention Mean Score (SD)	p-value
Causes of Hypertension	2.5	4.2	< 0.001
Risk Factors	2.0	4.0	< 0.001
Lifestyle Modifications	1.8	4.1	< 0.001
Medication Adherence	2.7	4.3	< 0.001
Importance of Regular Monitoring	2.9	4.4	< 0.001

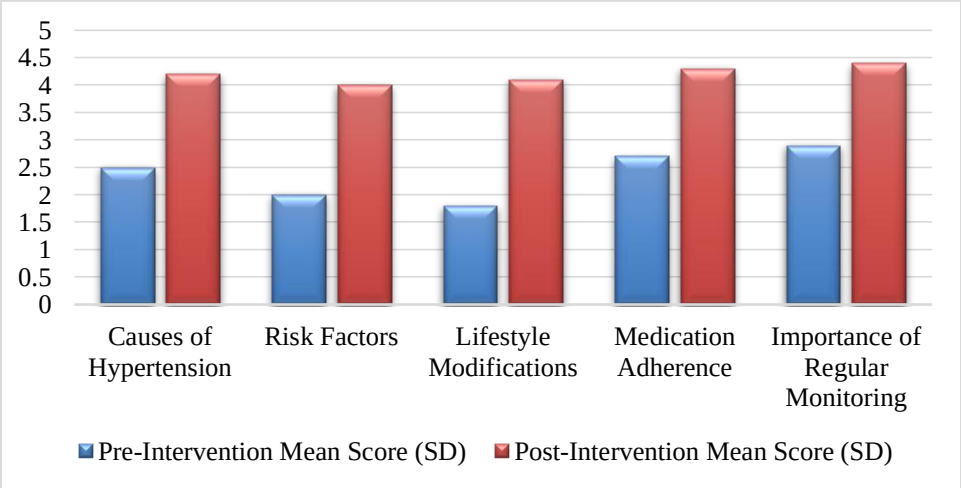

Figure 1: Pre- and Post-Intervention Knowledge Scores on Blood Pressure Management

The findings show that following the Information, Education, and Communication (IEC) interventions, participants' understanding of blood pressure management significantly improved. Participants' knowledge of the causes of hypertension had grown considerably after the session, compared to their pre-intervention level. Their understanding of risk factors, such as bad habits that lead to high blood pressure, was significantly increased. After the session, awareness of lifestyle changes—which had been the weakest area at first—showed significant growth. Additionally, participants learned how crucial it is to take prescription drugs as directed and to check their blood pressure on a regular basis. Overall, the results show that the IEC interventions significantly improved participants' knowledge, highlighting the importance of educational initiatives in assisting people with hypertension in better managing their illness.

Table 2: Pre- and Post-Intervention Attitude Scores on Blood Pressure Management

Attitude Component	Pre-Intervention Mean Score (SD)	Post-Intervention Mean Score (SD)	p-value
Medication Adherence	3.1	4.5	< 0.001
Dietary Modifications	2.9	4.2	< 0.001
Regular Exercise	2.8	4.1	< 0.001
Monitoring Blood Pressure	3.0	4.3	< 0.001
Belief in Managing Hypertension	2.6	4.2	< 0.001

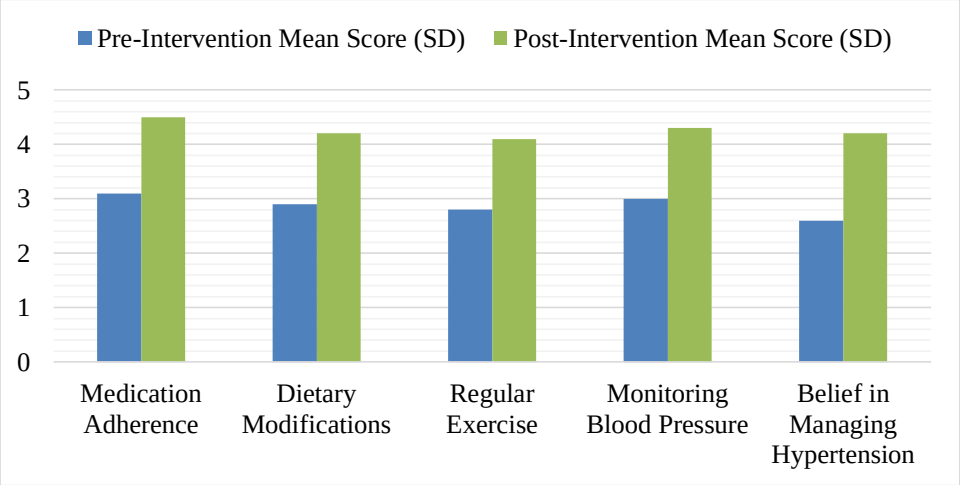

Figure 2: Pre- and Post-Intervention Attitude Scores on Blood Pressure Management

Following the Information, Education, and Communication (IEC) interventions, participants' attitudes about blood pressure management significantly improved, as shown by the results in Table 2. Participants' attitudes regarding medication adherence were initially moderate, but following the intervention, there was a noticeable improvement that suggested a stronger commitment to regularly take prescribed drugs. Likewise, previously unfavorable attitudes about dietary changes and consistent exercise significantly improved after the intervention, indicating a greater conviction in the significance of eating a balanced diet and exercising regularly to control hypertension. Furthermore, there was a notable improvement in the participants' attitude toward routine blood pressure checks, indicating a better comprehension of the significance of this practice in managing the condition. As evidenced by the significant rise in participants' belief in

effectively managing hypertension, the intervention also improved their confidence in their capacity to do so. The statistically significant p-values (< 0.001) for each component show how well the IEC interventions worked to change participants' perceptions of important elements of managing hypertension.

Table 3: Overall, Knowledge and Attitude Scores (Pre- and Post-Intervention)

Parameter	Pre-Intervention Mean Score (SD)	Post-Intervention Mean Score (SD)	p-value
Overall, Knowledge	2.4	4.2	< 0.001
Overall Attitude	2.9	4.3	< 0.001

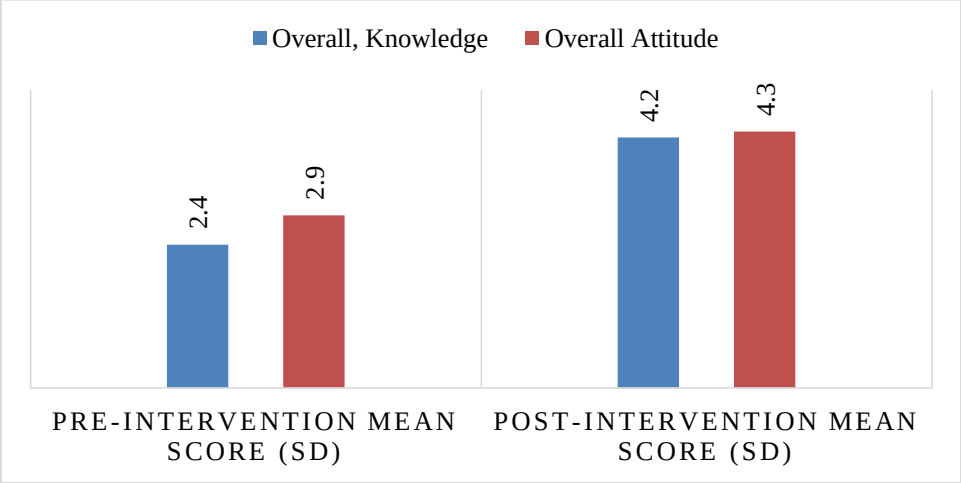

Figure 3: Overall, Knowledge and Attitude Scores (Pre- and Post-Intervention)

A thorough summary of the variations in participants' general knowledge and attitude scores about blood pressure control before and after the Information, Education, and Communication (IEC) treatments is provided in Table 3. The mean score for general knowledge was noticeably low before to the intervention, suggesting a poor comprehension of hypertension and how to treat it. But after the IEC sessions, the mean score rose dramatically, indicating that participants' knowledge levels had greatly improved. Following the session, the overall attitude score also demonstrated a significant change, going from a moderate attitude to a more optimistic outlook on managing hypertension. Both the knowledge and attitude ratings' consistently significant p-values (< 0.001) demonstrate how well the IEC treatments work to raise knowledge and promote a more proactive and knowledgeable approach to blood pressure management. These findings highlight the critical role that educational programs play in enabling people to comprehend and better manage their medical conditions.

Table 4: Improvement in Knowledge and Attitude Scores by Participant Demographics

Demographic Factors	Demographic Variable	Knowledge Improvement (%)	Attitude Improvement (%)
Age Group	**30-40**	60%	55%
	41-50	70%	65%
	51-60	65%	60%
	61-65	50%	45%
Gender	**Male**	65%	60%
	Female	68%	62%
Education Level	**Illiterate**	50%	45%
	Primary Education	70%	65%
	Secondary Education & Above	80%	75%

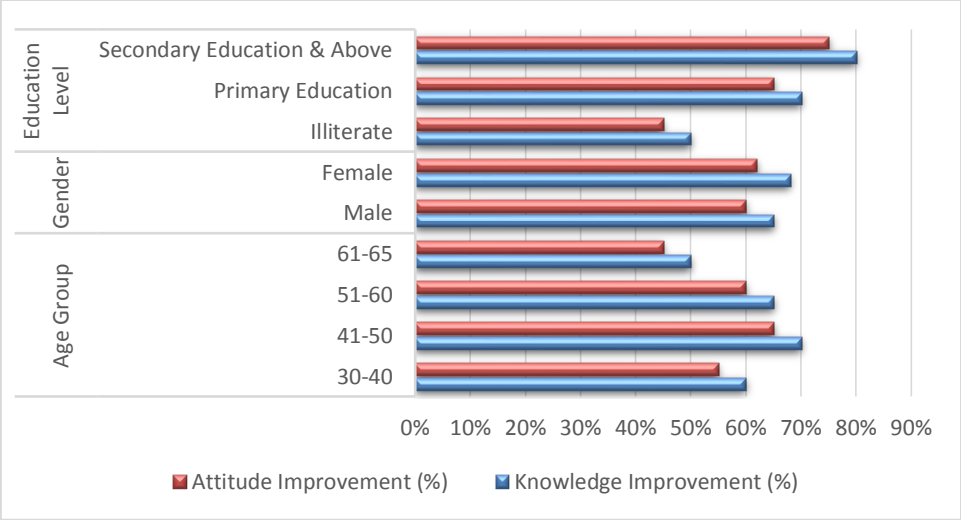

Figure 4: Improvement in Knowledge and Attitude Scores by Participant Demographics

There are notable differences in blood pressure management knowledge and attitude improvement among age groups, genders, and educational levels, according to the demographic factor data. At 70%, participants between the ages of 41 and 50 had the greatest growth in knowledge, closely followed by those with at least a secondary education, who showed an 80% increase. This implies that middle-aged and more educated people could be more open to IEC interventions, either because they have higher baseline awareness or because they can better understand complicated health information. Both sexes benefitted from the treatments, with males showing a 60% change in attitudes and females showing a slightly larger rise of 62%. It

is possible that females showed a more proactive approach to health management. In contrast, older age groups, especially.

CONCLUSION:

The study clearly shows that among clients with primary hypertension, information, education, and communication (IEC) treatments greatly improve knowledge and attitudes about blood pressure control. Participants' comprehension of important facets of hypertension, such as its etiology, risk factors, and the significance of lifestyle changes and medication adherence, has significantly improved, according to pre- and post-intervention assessments. Additionally, a stronger dedication to health-promoting practices including consistent monitoring, dietary adjustments, and exercise is reflected in the favorable shift in attitudes toward managing hypertension. The significant p-values for every component that was examined highlight how well the IEC interventions worked to encourage participants to adopt proactive and knowledgeable attitudes. These results demonstrate how important educational programs are in enabling people with hypertension to better control their illness and, eventually, lead to better health outcomes. The findings imply that comparable training approaches might be used in other medical facilities to improve the treatment of hypertension and encourage patient empowerment in the management of chronic illnesses.

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