


Enhancing Hypertension Management Through Audiovisual Self-Management Tools

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Article Info	ABSTRACT
Keywords: audiovisual, hypertension, self management	Introduction: Hypertension, also known as high blood pressure, is a condition where the blood pressure of an individual exceeds normal limits, posing risks such as pain and even death. Self-management of hypertension is crucial to control and manage symptoms, minimize disruptions to bodily functions and emotions, prevent complications, and achieve optimal health. Method: This study employed the Research and Development (R&D) method. The R&D method is used to develop and validate products or processes, including testing the effectiveness of existing products. Validation tests were conducted by three expert nurses and health promotion specialists, with limited testing carried out on 10 respondents. Results: Based on the recapitulation of validation tests and limited trials, the results indicate that audiovisual media for self-management of hypertension received a very favorable rating. Discussion: This study demonstrates that audiovisual self-management tools for hypertension are highly suitable as educational aids in health promotion processes.
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INTRODUCTION

Hypertension, or high blood pressure, is a condition where the systolic blood pressure is equal to or greater than 140 mmHg and/or the diastolic blood pressure is equal to or greater than 90 mmHg [1]. Hypertension, also known as high blood pressure, is a condition that increases blood pressure beyond normal limits, which can cause sufferers to experience pain and even pose a risk of death [2]. According to [3], the causes of hypertension are generally divided into two types: primary hypertension and secondary hypertension. Primary hypertension does not have a specific identifiable cause and can be due to factors such as genetics, obesity, excessive sodium intake, excessive alcohol consumption, dyslipidemia, vitamin D deficiency, and lack of physical activity. On the other hand, secondary hypertension can be attributed to identifiable causes such as kidney disease, certain medications, oral contraceptives, primary hyperaldosteronism, renal artery stenosis, coarctation of the aorta, and obstructive sleep apnea [3].

Hypertension is classified into three grades: grade 1 (mild) where systolic blood pressure ranges from 140-159 mmHg and diastolic blood pressure ranges from 90-99 mmHg, grade 2 (moderate) where systolic blood pressure ranges from 160-179 mmHg and

diastolic blood pressure ranges from 100-109 mmHg, and grade 3 (severe) where systolic blood pressure is greater than 180 mmHg and/or diastolic blood pressure is greater than 110 mmHg. Hypertension can be caused by various factors including age, ethnicity, sex, stress, sodium intake, smoking, lack of physical activity, and obesity. Uncontrolled hypertension can lead to complications such as atherosclerosis, coronary heart disease, and kidney damage [4].

Self-management of hypertension aims to control and manage symptoms, minimize disruptions to bodily functions and emotions, prevent complications, and achieve optimal health [5]. Self-management consists of five components: self-integration, self-regulation, interaction with healthcare providers, blood pressure monitoring, and adherence to recommended guidelines. Self-management aims to support and empower hypertension patients by providing information and knowledge about their condition. It encourages patients to take an active role in managing their health and making decisions about their self-care [6].

The audiovisual method has been proven effective in providing self-management education and can increase knowledge compared to other media [7]. According to [8], the benefits of using the audiovisual self-management method for hypertension include capturing user attention with interesting tools, delivering clear explanations that are easily understood, ensuring content is easily comprehensible, reducing the likelihood of misinterpretation, and systematically organizing content for effective learning.

METHOD

This study uses Research and Development (R&D) methods, which are used to develop and validate products, or to test the effectiveness of existing products. Validation tests were conducted by three expert nurses and health promotion specialists, with limited testing carried out on 10 respondents.

RESULTS AND DISCUSSION

Results

Disease No Infectious

Table 1. Percentage Disease No Infectious Health Service 2023

Disease No Infectious	Percentage
Hypertension	58.15%
Diabetes mellitus	21.05%
Heart	8.95%
Asthma	5.14%
Strokes	3.10%
COPD	1.57%
Cancer	0.78%

Based on the table above, the data shows that hypertension occupied the highest percentage among non-infectious diseases according to the Health Service in 2023, accounting for 58.15% of the cases.

Self Management

Table 2. Percentage of Self Management Level Patient Hypertension

Category	Percentage (n = 110)
Enough	57.06%
Not enough	42.04%

Based on Table 2, the level of self-management among patients with hypertension is classified as "Enough" in 57.06% of cases and "Less" in 42.04% of cases. This highlights the need for education related to hypertension to improve patient self-management and knowledge, potentially reducing the number of complications experienced by patients.

Data analysis

Table 3. Recapitulation of Expert Validation Test Results on Audiovisual Self Management Media Hypertension

No.	Aspect Evaluation	Percentages and Categories Validation		
		Validation I	Validation II	Validation III
1.	Material	93% (very decent)	89% (very decent)	80% (worthy)
2.	Contents	80% (worthy)	85.4% (very decent)	86% (very decent)
3.	Appearance	87% (very decent)	79% (worthy)	79.7% (eligible)

Based on table 3 is obtained results from recapitulation validation from three experts in audiovisual media *self management* hypertension . In aspect evaluation material obtained 93% result with very feasible category in validation I, 89% with very feasible category in validation II, and 80% with category eligible for validation III. In aspect evaluation fill obtained 80% results with category feasible in validation I, 85.4% with very feasible category in validation II, and 86% with very feasible category in validation III. In aspect evaluation appearance obtained 87% yield with very feasible category in validation I, 79% with category feasible in validation II, and 79.7% with category eligible for validation III.

Table 4. Recapitulation of Trial Results Limited to Audiovisual Media Self Management Hypertension

Respondent	Percentage Validation		
	Aspect Appearance	Aspect Material	Aspect Understanding
1	95%	90%	97%
2	90%	88.8%	95%
3	89%	92%	92.4%
4	93%	99%	98%
5	99%	98%	99%
6	87.8%	95.7%	89.3%
7	94%	89.5%	88.6%
8	98%	99%	95.7%
9	97.4%	95.6%	93%
10	88.5%	92%	89%
Rate-rate	93.17%	94.6%	93.7%
Category	Very Worth It	Very Worth It	Very Worth It

Based on table 4 is obtained results recapitulation test results limited to respondents with the average percentage in aspects appearance namely 93.17% with very feasible category , average percentage in aspects material namely 94.6% with very feasible category, and average percentage on aspects understanding namely 93.7% with Very worthy category.

Discussion

Analysis Development of Audiovisual *Self Management Media* for Hypertension

Audiovisual media for managing hypertension was developed using Research and Development (R&D) methods, which are employed to test the effectiveness of new products or improvements to existing ones [9]. According to [10], audiovisual media, utilizing videos and images, proves more effective in conveying information and enhancing knowledge during health education processes. The study began with gathering information and identifying potential issues through interviews with the Head of Health Services. The results revealed that current health education efforts by the Health Service utilize media such as posters, PowerPoint presentations, and leaflets. However, audiovisual media has not been utilized due to its unavailability. Consequently, health education, especially for hypertensive patients, has not yet incorporated audiovisual media. Data from the Health Service in 2023 indicate that hypertension ranks as the top non-infectious disease at 58.15%. Uncontrolled hypertension can lead to complications such as cardiovascular diseases, heart failure, stroke, kidney failure, and retinopathy, thereby increasing mortality rates [11].

Self-management of hypertension is a crucial approach for controlling blood pressure in hypertensive patients. It empowers patients to independently monitor and stabilize their blood pressure effectively in their daily lives [12]. This aligns with research findings by [13], indicating that self-management significantly influences blood pressure stability (p-value = 0.023 for systolic blood pressure and p-value = 0.000 for diastolic blood pressure). Additionally, [14] highlights that patients with good self-management skills are more capable of controlling their blood pressure compared to those with poor self-management skills. Effective self-management reduces the risk of complications in hypertensive patients. Lawrence Green's theory [15] emphasizes that knowledge is a critical factor influencing behavior. Education serves as a predisposing factor that enhances an individual's interest in improving their quality of life and acquiring health information [16]. Research by [17] underscores the effectiveness of health education and self-management in increasing knowledge among hypertensive patients (p-value = 0.001). Furthermore, audiovisual media for self-management in hypertension underwent internal testing by three expert nurses and health promotion specialists, with additional limited testing involving 10 respondents. Based on the recapitulation of validation tests and limited trials, the results demonstrate that audiovisual media for self-management of hypertension received a highly favorable rating for use as a health educational medium.

CONCLUSION

Based on the analysis of the research above, the conclusions drawn are as follows: The results of the limited testing with respondents indicate that the average percentage in the aspects of appearance, material, and understanding achieved a "Very Worthy" category. The validation

results from three experts in audiovisual media for managing hypertension show that all aspects—material evaluation, content evaluation, and appearance evaluation—were categorized as "Worthy".

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