Indonesian Journal on Health Science and Medicine

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

Determination of Self-Efficacy Level: The Capacity of Patients with Hypertension to Manage their Chronic Disease

Zahraa Abbass, MSc.[1] Saja Kareem Jassim, MSc.[2], Sadeq AL-Fayyadh3, PhD.[3], Sukaina Hafedh, MSc.[4], Ali Malik Tiryag, MSc.[5*], Hayder Hamzah Ali AL-Hadrawi, PhD[6]

[1] Assistant Lecturer, Fundamental of Nursing Department, College of Nursing, University of Basrah, Basrah, Iraq

[2,4] Assistant Lecturer, Fundamentals of Nursing Department, University of Basrah, College of Nursing, Basrah, Iraq

[3] An Associate Dean, Adult Nursing Department, College of Nursing, University of Baghdad, Baghdad, Iraq

[5] Fundamentals of Nursing Department, University of Basrah, College of Nursing, Basrah, Iraq

[6] Professor, University of Kufa, Faculty of Nursing, Mental Health Nursing Department

https://orcid.org/0000-0001-5103-1059[1], https://orcid.org/0000-0002-4526-7724[2], https://orcid.org/0000-0002-1194-1143[3], https://orcid.org/0009-0007-5794-2655[4], https://orcid.org/0000-0002-5240-8652[5], https://orcid.org/0000-0003-4525-0962[6]

Email: zahra.abass@uobasrah.edu.iq[1], saja.jassim@uobasrah.edu.iq[2] , s.al-fayyadh@conursing.uobaghdad.edu.iq[3], sukaina.ahmed@uobasrah.edu.iq[4], ali.malik@uobasrah.edu.iq[5], hayderh.alhadrawi@uokufa.edu.iq[6]

Abstract. Background: One psychological idea frequently connected to treating chronic illnesses, such as hypertension, is self-efficacy. The objective of this study was to evaluate the ability of hypertensive patients to manage their chronic condition and to determine the link between participants' socio-demographic factors and their self-efficacy in controlling hypertension. Methods: A correlational descriptive design was implemented from October 2022 to March 2024. The study sample was purposive (non-probability), consisting of 171 patients with hypertension. Data were gathered via a Google Form, which includes a socio-demographic data section and the Self-Efficacy for Managing Chronic Disease 6-Item Scale (SES6C). Results: A modest level of self-efficacy among hypertension patients was statistically validated, including 58% of the study population. Equally important, a statistically significant inverse association exists between participants' age and their self-efficacy in controlling hypertension ($r = -.250$ at $p = 0.01$). Furthermore, a statistically significant disparity exists in the self-efficacy of hypertension management across gender groups (p-value = .041), age categories (p-value = .000), reading groups (p-value = .032), marital status categories (p-value = .000), follow-up groups (p-value = .000), and exercise groups (p-value = .000). Conclusion: The study's findings indicate a statistically significant difference and link between socio-demographic variables and self-efficacy in treating hypertension. This indicates that self-efficacy in controlling hypertension is a multifaceted notion, and a singular component cannot dictate its trajectory. It is, instead, a result of the interplay of various elements, such as age, gender, experience, and education.

Highlights:

1. Assess socio-demographic factors' impact on self-efficacy in hypertension management.
2. Correlational design with 171 hypertensive patients via SES6C scale.

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

3. Self-efficacy in hypertension control is influenced by diverse socio-demographic factors.

Keywords: Self-Efficacy, Hypertension, Chronic Disease, Capacity, Patients

Introduction

Developing nations are seeing substantial changes in health needs. The increasing incidence of chronic diseases, such as hypertension, presents a public health challenge. The incidence of hypertension is rising among adult males, females, and adolescents (Muna and Mousa, 2022). Hypertension is a widespread and critical worldwide health concern. The Global Burden of Disease studies reveal that blood pressure-related diseases have caused over 50 lives, disabled millions, and incurred billions of dollars in costs to already fragile economies (Mills et al., 2020). Data from 2015 reveals that hypertension affects 24% of men and 20% of women worldwide [World Health Organization (WHO), 2015].

Managing chronic illnesses in an aged population is challenging (Anekwe and Rahkovsky, 2018) and necessitates diverse techniques (Cameron et al., 2018). Recent developments in healthcare—such as improved access to care and treatment alternatives, evidence-based practices, patient preferences, and the assertion of patient autonomy in care decisions—have caused the patient's role to change. To maintain health and minimize difficulties, individuals are now required to manage their medical treatment and adhere to prescribed regimens (Bratzke, 2015).

Moreover, (Bratzke, 2015) disclosed that an individual with a singular chronic condition may have as many as 20 potential therapy options for that condition. Daily management can be challenging as patients contend with many chronic conditions and treatment regimens while consulting multiple specialist physicians. High blood pressure is a significant contributor to disease and disability. Furthermore, it is one of the most widespread chronic diseases; globally, there were 1.13 billion individuals with high blood pressure in 2019, indicating a substantial increase from 594 million diagnosed cases of hypertension in 1975 (Malta et al., 2016; Balduino et al., 2016).

The prevalence of hypertension in adults varies between 30.0% to 71.6%. In 2010, about 13.8% of individuals had their hypertension adequately managed. Nevertheless, hypertension persists as an unmanaged condition. Individuals with hypertension must

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

modify their lifestyles to manage their chronic condition adequately, as therapy alone is inadequate for optimal blood pressure regulation (Gillespie and Hurvitz, 2016).

One psychological term that is frequently used to describe a person's ability to manage chronic illnesses is self-efficacy. Numerous categories, including health-related behaviors like quitting smoking, managing pain, controlling food and weight, recovering successfully from myocardial infarction, and adhering to preventative health programs, have shown its significance (Malta et al., 2016; Warren et al., 2012).

The literature has emphasized the importance of perceived self-efficacy as a cognitive factor influencing health. Nonetheless, there is a paucity of studies that have examined both self-efficacy and self-management behavior patterns in hypertension patients globally. Self-efficacy theory, utilized to comprehend self-management, is defined as the belief in one's capability to successfully do a specific activity in a given context (Uludag et al., 2016; Lorig et al., 1978).

The primary research question of this study is: Can patients with hypertension effectively manage their chronic condition, and what factors influence their self-efficacy?

Enhancing self-efficacy can elevate the outcomes and quality of life for individuals with chronic illnesses (Wu et al., 2016). Both external components, such as social support, and internal components, including belief and self-efficacy, are integral to a dynamic, continuous process that influences self-care behaviors. Individuals with elevated self-efficacy can motivate themselves to continuously engage in self-care behaviors and surmount obstacles that hinder participation, such as insufficient time or motivation (Locke and Latham, 2013).

Nonetheless, the controllability of diseases varies not only among different types of diseases but also among individuals. Self-efficacy, defined as the conviction of patients in their ability to manage and control their illness, is a more precise phrase. This is essential for participating in self-management activities and may also influence patients' readiness to self-monitor (Bandura, 1997). The present study aims to evaluate the ability of patients with hypertension to manage their chronic condition and to determine the link between participants' socio-demographic factors and their self-efficacy in managing hypertension.

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

Method

Research design

Correlational descriptive design that was carried through a period (October 2022 to March 2024). It investigates the relationships within a situation between two or more variables without determining the reason for the relationship. Where there is ambiguity as to whether the variables are related and, if so, how they are related, the researcher can use this design. The researcher, however, believes that the variables are related and tries to detect that relationship and explain it. Correlational designs do not assume that only one variable affects another since it is not always possible to control the independent variable (Polit and Beck, 2008).

Sample and sampling:

The study sample was adult patients with hypertension, sampling method was purposive (non-probability), consisting of (171) patients with hypertension.

Data Collection Method

An online Google form was used for data collection. This helped make the process quite easy for the participants and also guaranteed that the entire process of data collection was efficient and organized. The form collected information on socio-demographics and the SES6C, which is a validated tool for measuring self-efficacy in managing chronic diseases.

Ethical considerations

The researchers promise to protect participant privacy and use the data they acquire responsibly, with no potential harm to the study subjects. The study instrument was created with the right to subject anonymity in mind. By electronically signing the research consent form, subjects were granted the freedom to actively engage in the study.

Instrument of study

The study instrument comprises two components: The initial segment comprised socio-demographic information, the participant's clinical record, health behaviors, and knowledge regarding hypertension self-management. The second component comprised the Self-Efficacy for Managing Chronic Disease 6-Item Scale (SES6C) (Allam et al., 2020). The SES6C comprises six items that assess the extent to which individuals with chronic illnesses can execute specific tasks. The measure has six elements, with a scale ranging

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

from 1 (not at all confident) to 10 (very confident). A higher total score indicates a greater level of self-efficacy, determined by calculating the mean score of the six items.

Scoring of Self-efficacy Scale

The minimum score is 6 - Maximum score is 60 (a higher score indicates a higher level of self-effectiveness)

6 – 24 = Low self-effectiveness

25 – 42 = Moderate self-effectiveness

43– 60 = High self-effectiveness

Validity and Reliability:

The questionnaire was translated into Arabic proficiently, without any grammatical or content-related discrepancies. Participants ranged in age from 47.71 ± 14.7 years, with a fair mix of genders. The SEM6S had a mean overall score of 5.99 ± 1.86. The scale demonstrated good reliability (Cronbach's alpha = 0.79) and repeatable psychometric features (ICC = 0.61–0.71) (Allam et al., 2020).

Permission

The researcher was permitted to use of Arabic version valid and reliable scale in the study by emailing the author (Allam et al., 2020).

Statistical analysis

1- Descriptive statistics were employed to characterize the self-efficacy and demographic information of participants.
2- Nonparametric tests of association (Chi-square test and Fisher's Exact Test) are employed to ascertain the link between independent demographic variables and the dependent variable of self-efficacy.

Result and Discussion

Table 1. Socio-Demographic Data (n = 171)

Variable	F	%
Age (Years): 42.81 ± 12.37		
Sex		
Male	100	58.5
Female	71	41.5

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

Marital status		
Married	130	76.0
Single	15	8.8
Widow/widower	7	4.1
Divorced	19	11.1
Educational Level		
Read and write	36	21.1
High school	34	19.9
Associate or bachelor's degree	69	40.4
Master's degree	8	4.7
Doctoral Degree	24	14.0

Table 1. presented that the age mean is 42.81 ± 12.37; more than half of the study subjects were males (n = 100; 58.5%). Regarding the marital status, the majority (n = 130; 76.0%). It was reported that they were married. Concerning the level of education, around two-fifths hold associate or bachelor's degrees (n = 69; 40.4%).

Table 2. Participant's clinical sheet, Heath behavior, and knowledge about self-management of hypertension (N = 171)

Variable	F	%
Duration of illness (Years)		
< 1	22	12.9
2-3	72	42.1
> 4	77	45.0
Family history of hypertension		
Yes	135	78.9
No	36	21.1
Regular follow-up		
Yes	74	43.3

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

No	97	56.7
Blood pressure reading		
Within normal	78	45.6
Elevated	74	43.3
Extremely elevated	19	11.1
Comorbidity		
Yes	95	55.6
No	76	44.4
Do you exercise?		
Yes	57	33.3
No	114	66.7
Do you smoke?		
Yes	130	76.0
No	41	24.0
Do you assume the responsibility of developing your knowledge about the self-management of HTN?		
Yes	54	31.6
No	117	68.4
Are you Seeking Internet, reliable scientific websites?		
Yes	150	87.7
No	21	12.3

Table 2. presented the duration of illness, less than half reported that they had hypertension for more than 4 years (n = 77; 45.0%). Regarding the family history of hypertension, the majority reported that they have such a history (n = 135; 78.9%).

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

Concerning the regularity of follow-up, over half reported a lack of regular follow-up (n = 97; 56.7%). Regarding the blood pressure measurements, less than half have within normal readings (n = 78; 45.6%). As a percent of the comorbidity, more than half have comorbidity disease(s) (n = 95; 55.6%). Most reported that they have not been exercising (n = 114; 66.7%). The majority reported that they are smokers (n = 130; 76.0%). Most reported that they do not assume the responsibility of developing their knowledge about the self-management of hypertension (n = 117; 68.4%).

Table 3. Levels of self-efficacy

Self-efficacy level	F	P
Low	27	27.0
Moderate	58	58.0
High	15	15.0
Total	100	100.0

Table 3. Represent that the majority of hypertensive patients have a moderate level of self-efficacy 58%., while a few percent of them had a high self-efficacy level 15%.

Table 4. Correlation between participant's age and their Self-Efficacy in managing hypertension

Correlations

		Age	Self-Efficacy
Spearman's rho	Age	-	-.250**
	Self-Efficacy	-.250**	-

There is a statistically significant correlation at the 0.01% (2-tailed) level.

Table 4. Participants' perceptions of their ability to control their hypertension are inversely related to their age (r = -.250 at p = 0.01).

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

Table 5. Differences in Self-Efficacy among three-level variables

	Ranks					
	Gender	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig.
Self-Efficacy	Male	100	79.50	7950.00	2900.000	.041
	Female	71	95.15	6756.00		
	Total	171				
	Regular follow-up	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig.
	Yes	74	102.08	7554.00	2399.000	.000
	No	97	73.73	7152.00		
	Total	171				
	Comorbidity	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig.
	Yes	95	76.55	7272.50	2712.500	.005
	No	76	97.81	7433.50		
	Total	171				

Asymp. Sig.: Asymptomatic Significance; N: Number

Table 5. Self-efficacy in managing hypertension differs significantly by gender and HTN (p-value =.041). Conversely, we found that there is a statistically significant difference between the groups that exercised and those that did not when it came to their self-efficacy in managing their hypertension (p-value =.000 for the former and.000 for the latter).

Table 6. Differences in Self-Efficacy among Three Levels Variables

	Ranks			Kruskal-Wallis Test	Df	Asymp. Sig.
	Age Groups	N	Mean Rank			
Self-Efficacy	20-31	27	118.11	25.371	4	.000
	32-43	64	84.86			

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

	44-55	62	80.25			
	56-67	11	89.23			
	68-78	7	18.43			
	Total	171				
	Marital status	N	Mean Rank	Kruskal-Wallis Test	Df	Asymp. Sig.
	Married	130	92.87			
	Single	15	93.40			
	Widow/widowed	7	89.93	25.810	3	.000
	Divorced	19	31.68			
	Total	171				
	Blood pressure reading	N	Mean Rank	Kruskal-Wallis Test	Df	Asymp. Sig.
	Within normal	78	95.34			
	Elevated	74	81.59			
	Extremely elevated	19	64.82	6.856	2	.032
	Total	171				

Asymp. Sig.: Asymptomatic Significance; N: Number

Table 6. Age and hypertension-related differences in self-efficacy of managing hypertension are statistically significant. However, there is a statistically significant

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

difference (p-value =.000) between the groups according to marital status for self-efficacy in treating hypertension. Additionally, a statistically significant difference (p-value =.032) in the groups' Self-Efficacy in treating hypertension has been seen in blood pressure readings.

Discussion

This study confirms previous findings that indicate the majority of participants were male, with an average age of 42.81 ± 12.37 and a male-to-female ratio of 58.5% (n = 100; 58.5%). (Khairy et al., 2021). Although male mortality rates are consistently higher than female mortality rates in developed nations, women tend to report more acute illnesses and use health facilities more frequently than males in all countries where data is available (Asnaniar et al., 2021).

In terms of educational attainment, approximately 20% have a bachelor's or associate's degree; however, as many as 19 patients in the study by (Asnaniar et al., 2021) had just completed high school. Better health insurance, easier access to care, and lower out-of-pocket costs are all benefits that educated people enjoy because of the jobs they have. A higher death rate is associated with a higher income and a higher level of education, whereas a lower income and a lower level of education are associated with lower-level professions and healthcare access, respectively. Regarding the length of time someone has been sick, fewer than 50% said they have had hypertension for longer than four years. A study conducted by (Hu et al., 2013) corroborated these findings by showing that participants who were retested had hypertension for a longer time. Hypertension has been present in over half of the patients for over four years, according to another study by (Riaz et al., 2017). When it comes to people with chronic illnesses, the length of time they've been sick is the most critical factor associated with SE. Recovery and treatment outcomes have also been associated with the length of time a patient has been sick and with the presence of a chronic disease diagnosis.

Most people said they have a history of hypertension in their family. Similarly, the majority of hypertensive patients had a personal or family history of the disease (Ranasinghe et al., 2015). People who had a history of hypertension in their family were more likely to have hypertension themselves than those who did not. (Elwesif et al., 2021) found that over 50% of individuals had a positive hypertension family history. One important strategy for hypertension prevention, early detection, and treatment could be

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

to find people who have a history of the disease in their family. When asked about the frequency of follow-up, over 50% said it is not common. Consistent with the research done by (Riaz et al., 2017). To help people with chronic conditions make educated decisions about their condition's management and its effects, regular follow-up is essential. Less than half of the blood pressure values are within the normal range. Consistent with previous research, this finding comes from (Asnaniar et al., 2021).

Over 50% have two or more diseases at once, according to comorbidity. Research by (Dickson et al., 2013) lends credence to these findings. The majority of participants in this study said they had not been making time to exercise. The findings are consistent with those of a study by (Riaz et al., 2017). The fact that the majority of the participants were not very active may be explained by the fact that they were recruited from a population that was similarly unfit. Research conducted in the African environment has shown that urban people generally have low levels of physical activity, and the majority of participants were from urban areas (Assah et al., 2011). Even though they were patients, we still expected our participants to be rather typical.

(Ajayi and Olamijuwon, 2019) found that most adults have never smoked, which contradicts another study's findings. Treatment success, illness progression, comorbidities, quality of life, and survival are all negatively impacted by smoking, which is why quitting is a crucial component of managing many chronic diseases.

Also, although most people said they don't take it upon themselves to learn more about hypertension self-management, another study found that the participants had a lot of knowledge (Long et al., 2017). A significant obstacle to hypertension control is patients' inadequate understanding of the disease, which has a detrimental impact on their awareness and behavior. Another factor that contributes to patients not effectively managing their hypertension is their lack of confidence in their ability to follow their treatment plan (Khosravizade et al., 2015).

Hypertensive patients report moderate levels of self-efficacy, which is in line with the findings of a recent study (Hatef et al., 2018). On the other hand, a study by (Okatiranti, 2017) found that certain participants had high levels of self-efficacy when it came to managing hypertension in the elderly. People have different levels of self-efficacy. This variation is because each community has experienced its own unique culture, environment, and sample volume, as well as its own unique set of tools. This is

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

because people's perceptions of their skills are influenced by a multitude of factors. Several factors influence one's belief in their abilities, including one's age, gender, level of education, and work experience.

While one study found a statistically significant difference in self-efficacy in hypertension management between the sexes and HTN (p-value =.041), another found no such variation between sex and SES6C score (Khairy et al., 2021). When it came to habits of self-care and health maintenance, sex was the most independent factor. The age of the participants is inversely related to their self-efficacy in controlling their hypertension, which is a statistically significant finding. Findings are consistent with those of a previous study (Freund et al., 2013) that found lower levels of self-efficacy when age was adjusted. People with chronic illnesses or who are elderly and have a strong belief in their abilities are more likely to start and stick to healthy habits.

How well people of different ages manage their hypertension varies significantly. The opposite was true in another study; patients under the age of 65 scored higher on the self-efficacy scale than those 65 and up (Khairy et al., 2021). Negative feelings about one's talents and the effects of aging on one's physical health are associated with low levels of self-efficacy in the elderly. Also, how long someone is sick is related to their history of treatment experiences. When comparing groups with a history of hypertension in their family, there is a statistically significant difference in the self-efficacy of hypertension management. Optimal management is impacted by self-efficacy and self-care maintenance when there is a history of chronic disease in the family.

The self-efficacy of hypertension management varies significantly among marital status categories. However, a different study found no significant relationship between self-efficacy and marital status (Rozbahani et al., 2014). Married or coupled participants rated their ability to maintain self-care higher than single participants. One possible explanation for the correlation between marital status and self-care is the support that spouses provide. Poor self-care practices may also be more common among individuals who do not receive assistance from their partners.

There is a statistically significant difference in the regularity of the follow-up groups in terms of hypertension management self-efficacy, which is similar to a study by Elwesif et al. (2021) that found statistically significant differences between the pre-and post-implementation phases for all items of the self-care activity scale, with the follow-up

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

groups exhibiting the lowest level of self-care activity. Regular participation in a self-management and follow-up program enables patients with chronic diseases to take an active role in managing their condition and its complications by reducing their exposure to risk factors, keeping tabs on their symptoms, and making informed treatment decisions.

According to research (Rozbahani et al., 2014), there is a notable disparity in the groups' perceptions of their ability to control hypertension. In addition, a previous meta-analysis found that hypertension medication expenditures can be reduced and blood pressure control can be slightly improved with self-monitoring (Cappuccio, Kerry, Forbes, & Donald, 2004).

In terms of self-efficacy in hypertension management, the comorbidity groups differ statistically. This is in line with the findings of a study that showed a correlation between self-care and the prevalence of comorbidities. Both self-care maintenance and self-care management differed significantly according to the severity of comorbidities. According to Dickson et al. (2013), the correlation between self-efficacy and self-care maintenance can be influenced by comorbidity, however, this effect is only noticeable at moderate to high levels of comorbidity. Both the individual's decision-making, energy consumption, persistence, resilience, and stress levels—all of which can be impacted by co-occurring disorders—and self-efficacy have an impact on self-care (Pajares, 1997). Patients' perceptions of themselves, their illness (including any co-morbid illnesses), and their surrounding environment are all impacted by their self-efficacy, which in turn affects the naturalistic decision-making that is inherent in self-care (Riegel and Dickson, 2008).

Anyaoku and Nwosu (2016) found a positive but weakly significant correlation between exercise and self-efficacy, suggesting that the two groups' levels of confidence in their ability to control their hypertension are statistically different. An earlier study in Nigeria found that those with a higher body mass index (BMI) were less likely to be physically active, which could explain why this association holds (Idowu et al., 2013).

Conclusion

According to the study's findings, there is a statistically significant relationship between self-efficacy in hypertension management and socio-demographic variables.

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

Because of this, it is clear that self-efficacy in hypertension management is multi-faceted and cannot be predicted by a single variable. Age, gender, experience, and level of education are only a few of the variables that interact to produce it.

Reccomendations

Embrace a healthy lifestyle that includes quitting smoking, eating balanced food, and exercising regularly, in addition to understanding and self-regulation: To enhance one's health and well-being, one should proactively seek out knowledge regarding hypertension and acquire self-management skills. In addition, treat any preexisting diseases that can cause or exacerbate hypertension. Attention medical practitioners: Provide patients with hypertension with individualized treatment programs based on the results of comprehensive evaluations that pinpoint risk factors. Promote learning and assistance: Provide patients with information regarding hypertension, how to manage it, and the significance of making lifestyle adjustments. To encourage healthy lifestyle choices and increase public knowledge of hypertension, public health programs should be launched. Prevention initiatives that specifically target neighborhoods and individuals at high risk require additional research to back their creation and rollout. Hypertension patients' quality of life, illness burden, and hypertension management can all be improved by implementing these suggestions.

The implication of the study:

The study's findings highlight the importance of a holistic strategy to combat hypertension, which should incorporate public health campaigns, tailored therapies, and enhanced access to healthcare. We can enhance people's health and the health of our communities by lowering the prevalence of hypertension if we deal with these causes.

References

[1] A. F. Adeniyi, O. A. Idowu, O. O. Ogwumike, and C. Y. Adeniyi, "Comparative influence of self-efficacy, social support and perceived barriers on low physical activity development in patients with type 2 diabetes, hypertension or stroke," Ethiopian Journal of Health Sciences, vol. 22, no. 2, 2012.

[2] A. I. Ajayi and E. O. Olamijuwon, "What predicts self-efficacy? Understanding the role of sociodemographic, behavioral, and parental factors on condom use self-

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

efficacy among university students in Nigeria," PLoS One, vol. 14, no. 8, p. e0221804, 2019. DOI: 10.1371/journal.pone.0221804.

[3] M. M. Allam, H. T. El-Zawawy, I. I. Ismail, and R. M. Ghazy, "Cross-cultural reliability of an Arabic version of the self-efficacy for managing chronic disease 6-item scale in Arab patients with diabetes mellitus," Primary Care Diabetes, vol. 14, no. 4, pp. 305-310, 2020. DOI: 10.1016/j.pcd.2019.11.001.

[4] T. D. Anekwe and I. Rahkovsky, "Self-management: A comprehensive approach to the management of chronic conditions," American Journal of Public Health, vol. 108, pp. 430–436, 2018. DOI: 10.2105/AJPH.2014.302041r.

[5] E. N. Anyaoku and O. C. Nwosu, "Determinants of health information used for self-efficacy in lifestyle modification for chronic disease patients," Evidence-Based Library and Information Practice, vol. 11, no. 2, pp. 136-148, 2016. DOI: 10.18438/B8TC9D.

[6] W. O. S. Asnaniar, R. Tuanany, S. Samsualam, and N. W. Munir, "Self-Efficacy in Patients with Hypertension," Jurnal Aisyah: Jurnal Ilmu Kesehatan, vol. 6, pp. 109–114, 2021. DOI: 10.30604/jika.v6iS1.770.

[7] F. K. Assah, U. Ekelund, S. Brage, J. C. Mbanya, and N. J. Wareham, "Urbanization, physical activity, and metabolic health in sub-Saharan Africa," Diabetes Care, vol. 34, pp. 491-496, 2011. DOI: 10.2337/dc10-0990.

[8] A. D. F. A. Balduino, M. D. F. Mantovani, M. R. Lacerda, M. J. S. Marin, and M. L. Wal, "Experience of hypertensive patients with self-management of health care," Journal of Advanced Nursing, vol. 72, no. 11, pp. 2684-2694, 2016. DOI: 10.1111/jan.13022.

[9] A. Bandura, "Self-efficacy: Toward a unifying theory of behavioral change," Advances in Behavior Research and Therapy, vol. 1, no. 4, pp. 139-161, 1978. DOI: 10.1016/0146-6402(78)90002-4.

[10] A. Bandura, Self-efficacy: The Exercise of Control. Macmillan, 1997.

[11] L. C. Bratzke, R. J. Muehrer, K. A. Kehl, K. S. Lee, E. C. Ward, and K. L. Kwekkeboom, "Self-management priority setting and decision-making in adults with multimorbidity: A narrative review of the literature," International Journal of Nursing Studies, vol. 52, no. 3, pp. 744-755, 2015. DOI: 10.1016/j.ijnurstu.2014.10.010.

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

[12] V. V. Dickson, H. Buck, and B. Riegel, "Multiple comorbid conditions challenge heart failure self-care by decreasing self-efficacy," Nursing Research, vol. 62, no. 1, pp. 2-9, 2013. DOI: 10.1097/NNR.0b013e31827337b3.

[13] S. A. Elwesif, M. A. Mohammed, R. I. Elmwafy, and G. Mohamed, "Effect of evidence-based lifestyle guidelines on self-efficacy among hypertension patients," Port Said Scientific Journal of Nursing, vol. 8, no. 1, pp. 226-254, 2021. DOI: 10.21608/pssjn.2021.52734.1073.

[14] C. P. Fuchs, "Blood pressure control by home monitoring: Meta-analysis of randomized trials," British Medical Journal, vol. 145, p. 329, 2004.

[15] T. Freund, J. Gensichen, K. Goetz, J. Szecsenyi, and C. Mahler, "Evaluating self-efficacy for managing chronic disease: Psychometric properties of the six-item Self-Efficacy Scale in Germany," Journal of Evaluation in Clinical Practice, vol. 19, no. 1, pp. 39-43, 2013. DOI: 10.1111/j.1365-2753.2011.01764.x.

[16] M. Hatef, N. Sharif Nia, N. Mousavinasab, R. Esmaeili, and V. Shafipour, "Self-efficacy and prediction of associated factors in patients with chronic diseases," Journal of Mazandaran University of Medical Sciences, vol. 28, no. 162, pp. 86-94, 2018.

[17] H. Hu, G. Li, and T. Arao, "Validation of a Chinese version of the self-efficacy for managing chronic disease 6-item scale in patients with hypertension in primary care," International Scholarly Research Notices, vol. 2013, no. 1, p. 298986, 2013. DOI: 10.1155/2013/298986.

[18] O. A. Idowu, A. F. Adeniyi, O. J. Atijosan, and O. O. Ogwumike, "Physical inactivity is associated with low self-efficacy and social support among patients with hypertension in Nigeria," Chronic Illness, vol. 9, no. 2, pp. 156-164, 2013. DOI: 10.1177/1742395312468012.

[19] S. Khairy, A. Aslan, A. M. Samara, I. Mousa, A. S. Alkaiyat, and S. E. H. Zyoud, "Factors associated with self-efficacy in patients with hypertension: A cross-sectional study from Palestine," Journal of Health, Population and Nutrition, vol. 40, pp. 1-10, 2021. DOI: 10.1186/s41043-021-00225-2.

[20] A. Khosravizade, A. Hassanzadeh, and F. Mostafavi, "The impact of self-efficacy education on self-care behaviors of low salt and weight setting diets in

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

hypertensive women covered by health-care centers of Dehaghan in 2013," Journal of the Pakistan Medical Association, vol. 65, no. 5, pp. 506-511, 2015.

[21] E. A. Locke and G. P. Latham, Eds., New Developments in Goal Setting and Task Performance, vol. 24, p. 664. New York: Routledge, 2013.

[22] E. Long, M. Ponder, and S. Bernard, "Knowledge, attitudes, and beliefs related to hypertension and hyperlipidemia self-management among African-American men living in the southeastern United States," Patient Education and Counseling, vol. 100, no. 5, pp. 1000-1006, 2017. DOI: 10.1016/j.pec.2016.12.011.

[23] K. R. Lorig, D. S. Sobel, A. L. Stewart, B. W. Brown Jr., A. Bandura, P. Ritter, et al., "Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: A randomized trial," Medical Care, vol. 37, no. 1, pp. 5-14, 1999.

[24] D. C. Malta, N. B. D. Santos, R. D. Perillo, and C. L. Szwarcwald, "Prevalence of high blood pressure measured in the Brazilian population, National Health Survey, 2013," Sao Paulo Medical Journal, vol. 134, no. 2, pp. 163-170, 2016. DOI: 10.1590/1516-3180.2014.00200512.

[25] K. T. Mills, A. Stefanescu, and J. He, "The global epidemiology of hypertension," Nature Reviews Nephrology, vol. 16, no. 4, pp. 223–237, 2020. DOI: 10.1038/s41581-019-0244-2.

[26] G. J. Molloy, G. Randall, A. Wikman, L. Perkins-Porras, N. Messerli-Bürgy, and A. Steptoe, "Type D personality, self-efficacy, and medication adherence following an acute coronary syndrome," Psychosomatic Medicine, vol. 74, no. 1, pp. 100–106, 2012. DOI: 10.1097/PSY.0b013e31823a5b2f.

[27] A. Muna, H. J. Al-Badri, and N. A. Mousa, "Hypertension control among adult Iraqis," Journal of the Faculty of Medicine Baghdad, vol. 64, no. 3, pp. 145–152, 2022. DOI: 10.32007/jfacmedbagdad.6431935.

[28] O. Okatiranti and F. Amelia, "Hubungan Self Efficacy dengan Perawatan Diri Lansia Hipertensi: Studi Kasus Salah Satu Puskesmas di Kota Bandung," Jurnal Keperawatan BSI, vol. 5, no. 2, 2017. DOI: 10.31311/.v5i2.2631.

[29] F. Pajares, "Current directions in self-efficacy research," Advances in Motivation and Achievement, vol. 10, no. 149, pp. 1–49, 1997.

ISSN XXXX XXXX. Published by Universitas Muhamamdiyah Sidoarjo
Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY).

[30] D. F. Polit and C. T. Beck, Nursing Research: Generating and Assessing Evidence for Nursing Practice, 8th ed., Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins, 2008.

[31] P. Ranasinghe, D. N. Cooray, R. Jayawardena, and P. Katulanda, "The influence of family history of hypertension on disease prevalence and associated metabolic risk factors among Sri Lankan adults," BMC Public Health, vol. 15, pp. 1–9, 2015. DOI: 10.1186/s12889-015-1927-7.

[32] S. Riaz, N. Haq, F. Ahmed, A. Nasim, M. Tahir, M. Khan, and N. Noureen, "Reliability and validity of Urdu version of the self-efficacy for managing chronic disease 6-item scale for patients with hypertension in Quetta, Pakistan," Asian Journal of Research in Medical and Pharmaceutical Sciences, vol. 2, no. 1, pp. 1–8, 2017. DOI: 10.9734/AJRIMPS/2017/37210.

[33] B. Riegel and V. V. Dickson, "A situation-specific theory of heart failure self-care," Journal of Cardiovascular Nursing, vol. 23, no. 3, pp. 190–196, 2008. DOI: 10.1097/01.JCN.0000305091.35259.85.

[34] N. Rozbahani, M. Khorsandi, and Z. Fekrizadeh, "Self-efficacy of self-care behaviors of elderly patients with hypertension," Journal of Sabzevar University of Medical Sciences, vol. 21, no. 5, pp. 753–760, 2014.

[35] A. Uludag, E. M. Sahin, H. Agaoglu, S. Gungor, Y. H. Ertekin, and M. Tekin, "Are blood pressure values compatible with medication adherence in hypertensive patients?" Nigerian Journal of Clinical Practice, vol. 19, no. 4, pp. 460–464, 2016.

[36] J. Warren-Findlow, R. B. Seymour, and L. R. Brunner Huber, "The association between self-efficacy and hypertension self-care activities among African American adults," Journal of Community Health, vol. 37, pp. 15–24, 2012.

[37] Global Health Observatory Data Repository, World Health Organization, 2015.