

Culturally Tailored Intervention to Improve Self- Efficacy and Blood Pressure Control in Russian-speaking Older Adults with Hypertension

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Clinical Question: “What is the impact of a culturally tailored intervention on BP control and self-efficacy in Russian speaking older immigrants with hypertension?”

- HTN is the most common diagnoses seen in the clinical setting.
- HTN contributes to premature death
- Accounts for 13% of all deaths globally
- HTN is a condition that necessitates self-management skills and behaviors.

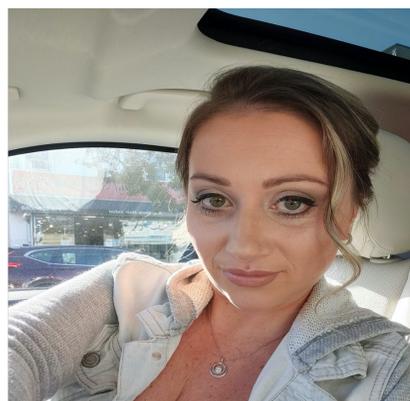
Background/ Significance

- Healthcare costs account for \$131 billion.
- Major contributor to CV mortality and hospitalizations.
- Unsatisfactory control due to **non-adherence** to prescribed meds and **insufficient** self-care skills.
- A typical Russian diet contains lots of saturated fats and sodium than recommended.
- Heavy cigarette use, high alcohol intake, and lack of physical activity was the normal way of life for the Russian people.
- Many older Russian-speaking immigrants do not speak and read English.
- Russians adjust doses and frequencies of medications based on how they feel.
- Challenges of Russian immigrants exacerbated by stressors related directly to migration.

Aims & Objectives

- Develop a culturally tailored education with focus on self-management of HTN over 1.5 months.
- Implement a culturally tailored 1-hour long education with focus on self- management of HTN over 3-4 sessions.
- Assess the effectiveness of culturally tailored interventions by comparing BPs and self-efficacy surveys pre- and post-intervention over a 1.5-month period.

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Methodology

- Quasi- experiment
- Conducted to evaluate the effectiveness of educational interventions on BP control and self-efficacy among Russian-speaking older adults with HTN.
- No control group.

Study Population & Recruitment

- 10 participants recruited using convenience sampling method
- Inclusion Criteria-** 65+, dx w/ HTN, speaks and understands Russian, on at least 1 anti- HTN med, cognitively intact, access to BP machine
- Exclusion Criteria-** 90+, 65 or younger, no access to BP machine
- Recruitment process included handing out of flyers by facility’s director.

Study Intervention

- 3 individual home sessions with each participant appx 1 hr in duration.
- 1st session- demographics, self- efficacy survey, initial BP obtained, education of accurate BP measurement
- 2nd session- exercise, diet, f/u with PMD/ Cardiology.
- 3rd session- BP logs reviewed, post self- efficacy survey, final BP measurement, individual feedback on lifestyle modifications.

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Results

Demographics of Participants

Characteristics	Frequency % (Total n=10)	
Age Group	65-70	1 (10%)
	71-75	3 (30%)
	76-80	3 (30%)
	81-85	1 (10%)
	86-89	2 (20%)
Gender	Male	4 (40%)
	Female	6 (60%)
Duration of HTN	< 1 year	0
	1-5 years	2 (20%)
	6-10 years	0
	>10 years	8 (80%)
Provider Managing HTN	Cardiology	4 (40%)
	Primary Care Physician	6 (60%)
Number of HTN meds taken	1	3 (30%)
	2	3 (30%)
	3	2 (20%)
	4+	2 (20%)

SBP Pre & Post Intervention

	Pre- Intervention	Post- Intervention
Mean	139.4	127.2
Variance	140.044444	275.955556
Observations	10	10
Pearson Correlation	0.52066563	
Hypothesized Mean Difference	0	
Df	9	
t Stat	2.65412578	
P(T<=t) one-tail	0.01314888	
P(T<=t) one-tail	1.83311293	
P(T<=t) two-tail	0.02629776	
t Critical two-tail	2.26215716	

DBP Pre & Post Intervention

	Pre- Intervention	Post- Intervention
Mean	76.8	74.5
Variance	33.0666667	124.722222
Observations	10	10
Pearson Correlation	0.56922801	
Hypothesized Mean Difference	0	
Df	9	
t Stat	0.79039304	
P(T<=t) one-tail	0.22481117	
t Critical one-tail	1.83311293	
P(T<=t) two-tail	0.44962234	
t Critical two-tail	2.26215716	

Self-Efficacy Score Pre and Post Intervention

	Pre- Intervention	Post- Intervention
Mean	35.3	42.9
Variance	37.3444444	43.2111111
Observations	10	10
Pearson Correlation	0.18614948	
Hypothesized Mean Difference	0	
Df	9	
t Stat	-2.9673015	
P(T<=t) one-tail	0.00788569	
t Critical one-tail	1.83311293	
P(T<=t) two-tail	0.01577138	
t Critical two-tail	2.26215716	

Discussion/ Implications

- Statistically significant improvements in SBP control.
- Statistically significant improvement in self- efficacy.
- Due to homogeneity of the sample, the results may not be generalized to more diverse populations.
- A short-term follow up period makes it impossible to evaluate the lasting effect of the intervention.
- Not possible to evaluate the effects it may have had on decreasing the participants’ risks of having HTN-related complications.

Implications for Clinical Practice

- Clinicians, all members of the Adult Day Healthcare facility should focus on serving sodium-restricted foods, daily blood pressure checks, and engage their clients in age-appropriate physical activities daily.
- Educational interventions focused on encouraging HBPM and discussing different ways to self-manage their BPs.
- Educational materials and discussions focused on the patient’s cultural practices, traditions, and individual lifestyles.

Implications for policy

- Blood pressure machines are not financially covered by Medicare for patients with a diagnosis of HTN, unless receiving HD.
- The positive outcomes may reduce HTN- related mortality, and ultimately decrease healthcare expenses.
- A minimal investment can save billions of dollars annually, improve quality of life, and decrease any risk of mortality at an early age.

Implications for Future Research

- Conduct future studies with large sample sizes and a longer follow up period. By doing a longer follow up period, there is a better chance at evaluating long- lasting effects of educational interventions focusing on self-efficacy and BP control.
- More studies are required to establish the effects of patient education on BP control and improved self-management skills in decreasing HTN-related complications.
- A study should be conducted focusing on cost effectiveness of educational interventions
- It is also important to delineate whether group sessions will be just as effective as the individual sessions.

Sustainability

- Continue logging in their BPs in their logs
- The in-house RN will be encouraged to take clients BPs when they attend the facility and review their BP logs.
- Management discouraged from offering high sodium foods to their clients.
- Pharmacy Outreach Services will be educated on importance of correlating BP meds and patient’s BP logs to see if changes need to be made.
- Social Services encouraged to ensure patients are all following up with their PMDs and/or cardiologists.