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SELF-EFFICACY, MEDICATION ADHERENCE AND BLOOD PRESSURE CONTROL IN MEXICAN IMMIGRANTS

by

RAYANNE PAULINE MACNEE

Presented to the Faculty of the Honors College of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

HONORS BACHELOR OF SCIENCE IN NURSING

THE UNIVERSITY OF TEXAS AT ARLINGTON

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April 11, 2014

ABSTRACT

SELF-EFFICACY, MEDICATION ADHERENCE AND BLOOD PRESSURE CONTROL IN MEXICAN IMMIGRANTS

Rayanne Pauline Macnee, RN, BSN

The University of Texas at Arlington, 2014

Faculty Mentor: Dr. Donelle Barnes

This study is a quantitative descriptive design. The purpose of this study was to describe blood pressure control, self-efficacy, and medication adherence in Mexican immigrants living in the United States. Thirty participants, who were Mexican immigrants with a previous diagnosis of hypertension and over 18 years of age, were recruited at a North Texas clinic. Once informed consent was obtained, blood pressure, medication adherence, and self-efficacy were measured. Next, several demographic questions were asked to better understand the population. Data was analyzed for frequencies and range of response for the descriptive variables. Of the 30 subjects interviewed, 56.7% had a controlled systolic blood pressure. In addition, 50% of the subjects had been previously diagnosed with diabetes. In general, subjects who had diabetes had slightly higher rates of blood pressure control. In addition, the average score for self- efficacy was 3.5 on a scale of 1 to 5, and the average medication adherence score was 2.6. A low economic status was notable in this particular population group, as ninety percent of the participants lived on an income of less than \$20,000 a year, with an average of 4.4 people living with them.

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CHAPTER 1

BACKGROUND

1.1 Introduction

Hypertension (HTN), sometimes referred to as the "Silent Killer" because of its lack of symptoms, is a leading risk factor for cardiovascular disease and stroke (CDC, 2012). It is estimated that HTN costs \$131 billion each year in healthcare costs. One third of the U.S. population has high blood pressure, and only half of them have it under control (CDC, 2012). One of the more vulnerable population groups is Mexican-origin adults. Although these individuals do not have higher rates of HTN, they have lower rates of blood pressure control than non-Hispanic Whites.

<u>1.2 Purpose of the Study</u>

The purpose of this study was not only to gain a better understanding of blood pressure control in Mexican immigrants living in the United States, but also to describe the population by measuring: self-efficacy, medication adherence, sex, age, household and income.

1.3 Review of Literature

According to the CDC (2012), 51.5 % of non-Hispanic Whites have uncontrolled blood pressure, while 63.1% of Hispanics have uncontrolled blood pressure. In addition, in the Hispanic community, those of Mexican origin have higher rates of uncontrolled hypertension than other Hispanics (CDC, 2012). Studies indicate that higher rates of uncontrolled HTN in individuals of Hispanic origin could be related to increased barriers to blood pressure control

such as high rates of physician distrust, cultural differences, perceived discrimination at doctors' offices and pharmacies, and low rates of insurance (Armstrong et al., 2007; Barnes & Lu 2012).

Multiple studies have been conducted on different strategies to improve blood pressure control among minority groups (Morisky, et al., 1986; Rocha-Goldberg et al., 2010; Warren-Findlow et al., 2011). It has long been thought that the best approach to blood pressure control is different tailored interventions. However, in a systematic review critiquing and synthesizing results from many studies in their effects in improving blood pressure control, Radhakrishnan (2011) found that tailored interventions had no significant impact on activities such as medication adherence, self-monitoring, exercise, smoking, or diet control. Although tailored interventions have been moderately successfully in improving dietary fat intake, increasing exercise and health screening, when cost and efficiency is considered, individualizing or tailoring interventions may not be feasible.

However, other researchers have demonstrated that high rates of self-efficacy are associated with blood pressure control in other minority groups, such as African Americans. In one quantitative study, Warren-Findlow and colleagues (2011) aimed to assess the self-care behaviors in African Americans with HTN, and to examine self-efficacy and its relationship to recommended self-care behaviors. In this study, there were 190 African American adult participants above the age of 21 who had at least a 6 month history of HTN and were currently prescribed an antihypertensive. Data was collected initially with a survey, and later a face to face interview was conducted for an average of 58 minutes by trained African American research assistants. The results showed that participants who had scores that indicated high levels of self-efficacy also were more successful in medicine adherence, eating low salt diets, exercising, not smoking, and weight management.

Self-efficacy refers to "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Self-efficacy is not only understanding how to carry out a particular task, but also understanding what that task can accomplish and its importance. In the past, a similar study was conducted to measure self-efficacy in the Hispanic population related to arthritis care using the Spanish Arthritis self-efficacy scale (Lorig et al., 1996). This scale has been adapted for use in this study.

Blood pressure control is clearly an issue that needs to be addressed in this population. In order to recommend effective interventions, we must know the level of blood pressure control in Mexican immigrants, their self-efficacy related to blood pressure regulation, and the level of antihypertensive medication adherence. It is hoped that this study will lay the ground work for future studies that focus on successful interventions for controlling blood pressure in this population group.

1.4 Significance of Research

High blood pressure is known to be a leading risk factor for both heart disease and stroke, the first and third leading cause of death in Hispanics over age 65, respectively (Aranda & Vazquez, 2004). Not only is high blood pressure deadly and often asymptomatic, but it is also highly uncontrolled in the Mexican immigrant population (CDC 2012). As a major risk factor for multiple catastrophic illnesses, it needs to be investigated in order that changes and recommendations may be made for such patients in the future. With the knowledge gained from this research, it is hoped that recommendations for future control of HTN in Hispanics can be made.

CHAPTER 2

METHODOLGY

2.1 Study Design

This study is a quantitative descriptive design. The aim of this study is to explore correlations between blood pressure control, medication adherence, self-efficacy and other demographic variables. This study is descriptive in that no specific interventions are being tested; rather measurements and correlations are being performed.

2.2 Population and Sample

The population of interest is adult Mexican immigrants with HTN. Because of their lower rates of blood pressure control compared to non-Hispanic Whites, it is clear that blood pressure control is an issue that needs to be addressed in this population (CDC 2012). In order to recommend effective interventions, we must know the level of blood pressure control in Mexican immigrants, their self-efficacy related to blood pressure regulation, and the level of antihypertensive medication adherence.

The sample was 30 self-identified Mexican immigrant adults, over 18 years of age, with a medical diagnosis of high blood pressure who had been prescribed medication for hypertension for at least 3 months. This is a sub-set of data from a larger study where data collection is ongoing. Participants were able to speak and understand Spanish or English and were capable of giving informed consent. The sample was obtained through convenience sampling at a North Texas primary care clinic that had a high proportion of clients who met the criteria for this study.

Potential participants were approached in the waiting room with a brief explanation of the study and the time involved in data collection. If interested, a member of the research team took them to a private room in the clinic, explained the study in more detail, and obtained verbal informed consent. Once they consented, data collection took place immediately.

Because of low literacy levels in this population, the measurement tools were read to each participant in Spanish and answers were recorded by a member of the research team. Finally, blood pressure was taken in both arms and averaged. After data was collected, participants were given a pen to thank them for participating.

2.3 Measurement Tools (See Appendix)

The Morisky-Green Adherence Scale, a 4-item scale that has been used successfully in the past to measure medication adherence in adults with HTN and has been translated into Spanish, was used to measure medication adherence (Morisky, Green, & Levine, 1986).

Self-efficacy was measured using a 5-item scale adapted from a Spanish Arthritis selfefficacy scale (Lorig et al., 1996). An example of one of the questions asked is listed below. (See Figure 1.1).

Figure 1.1 Self-Efficacy Scale

¿Qué tan seguro(a) se siente usted de poder hacer una cita con el médico cuando sea necesario? [How certain are you that you can make an appointment with the doctor when necessary?]											
1	2	3	4	5	6	7	8	9	10		
Mu	у								Muy		
Inseguro(a)							Seguro(a)				
[Very Uncertain]									[Very Certain]		

Blood pressure was measured using the Korotkoff technique of auscultating for blood flow over the brachial artery as the blood pressure cuff was deflated. Blood pressure was taken in the upper arm of both arms after the participant had removed any clothing covering where the cuff fit on the arm and was seated comfortably (Pickering et al. 2005). The blood pressure readings for both arms were averaged and recorded for analysis.

Demographics of the sample were recorded to describe the sample. Demographic questions included sex, age, marital status, annual family income, additional diagnosis of diabetes, years since immigration, and number of family members in household. Also, acculturation was measured using the Marin and Marin (1991) acculturation scale.

2.4 Data Analysis

Once data from 30 participants had been collected, the data was sorted between different groups- diabetics and non-diabetics- to calculate an average and range of participants with controlled blood pressure. Mean and range were also calculated, using a hand-held calculator, for overall controlled blood pressure, adherence, self-efficacy, acculturation, and demographic questions.

CHAPTER 3

FINDINGS

3.1 Sample Description

There were 30 subjects in this preliminary analysis of the data. See Table 1.1 for a description of the sample.

Variable	Mean	Range
Sex	20% male 80% female	-
Age	51.6 years	34-78 years
Years in U.S.	16.2 years	1-44 years
Marital Status	66.7% married 33.3% single	-
Number of people Living in the house	4.4 people	2-10 people
Acculturation (scale of 1- 5)	1.1 (very low)	1.0-1.5

Table 1.1: Sample description (n=30)

Results of the survey also showed that 90% of the subjects lived on an income less than \$20,000 a year. In addition, 50% of subjects had been previously diagnosed with diabetes.

3.2 Blood Pressure Control

Only 56.7 % of all the subjects had a controlled systolic blood pressure, and 50% had a controlled diastolic blood pressure. Of the subjects who had a diagnosis of both hypertension and diabetes, 60% had a controlled systolic blood pressure, and 46.6% had a controlled diastolic blood pressure. Finally, of the subjects without diabetes, 53.3% had a controlled systolic blood pressure, and 53.3% had a controlled diastolic blood pressure.

The men who participated in the study had a 50% rate of blood pressure control while women had a 58.3% rate of blood pressure control. The men who had diabetes and who didn't have diabetes both had a 50% rate of blood pressure control. The women who had diabetes had a 61.5% rate of blood pressure control, while the women who did not have diabetes had slightly lower blood pressure control at a rate of 54.6%. See Table 1.2 for a description of blood pressure control.

Table 1.2: Blood Pressure Control

	Controlled Blood Pressure	Uncontrolled Blood Pressure
Males	50%	50%
Females	58.3%	41.7%
Diabetics	60%	40%
Non-Diabetics	53.3%	46.7%

3.3 Medication Adherence and Self-Efficacy

Results from the Morisky-Green Medication adherence scale demonstrated an overall average of 2.6, on a scale of 1-4, which indicates only average medication adherence. Results from the self-efficacy scale were an average of 3.5 on a scale of 1-5, with 5 indicating a high level of self-efficacy.

On average, men had a medication adherence score of 2.5 and an average self-efficacy score of 3.4. Women on the other hand, had a slightly higher average for medication adherence at 2.6 and a slightly higher average for self-efficacy at 3.5.

CHAPTER 4

DISCUSSION

According to the CDC (2012), 51.5 % of non-Hispanic Whites have uncontrolled blood pressure, while 63.1% of Hispanics have uncontrolled blood pressure. The results from this study varied from the CDC in that only 43.3% of Mexican immigrants had an uncontrolled systolic blood pressure, and 50% had an uncontrolled diastolic blood pressure, meaning that this sample had better than expected blood pressure control. The reason for this may be that all subjects were recruited from one clinical site, and the HTN care there may be above average. For example, social support from family as well as positive relationships with healthcare providers are strong in this population group. Future studies need to sample from multiple clinical sites.

4.1 Unexpected Findings

It was surprising to find that the participants that had a comorbid diagnosis of diabetes had better control of their blood pressure compared to non-diabetics. Sixty percent of the subjects who had a diagnosis of both hypertension and diabetes had a controlled systolic blood pressure, compared to the subjects without diabetes of whom 53.3% had a controlled systolic blood pressure. We expected that patients with co-morbid conditions, such as diabetes and hypertension, would have more difficulty controlling both diseases, but this was not the case. It is possible that this is due to a small sample size.

It is also important to understand the population group being examined. It was surprising to see that 90% of the participants lived on an income of less than \$20,000 a year, with an

average of 4.4 people living with them. Despite living in poverty, these Mexican immigrants had reasonably good BP control. In addition, participants had lived in the United States for an average of 16.2 years, but still scored very low on acculturation (1.1 on a scale of 1-5).

Despite the higher-than-expected levels of blood pressure control, results from the selfefficacy scale were an average of 3.5 on a scale of 1-5, with 5 indicating a high level of selfefficacy. Also, results from the Morisky-Green Medication adherence scale demonstrated an average of 2.4, on a scale of 1-4, which indicates average adherence. It is possible that future self-efficacy interventions could help Mexican immigrants control their blood pressure. Results from a previous study of the relationship between self-efficacy and blood pressure control in African American patients showed that participants who had high levels of self-efficacy also were more successful in medicine adherence, eating low salt diets, exercising, not smoking, and weight management (Warren-Findlow 2011). By improving self-efficacy with the associated behaviors, participants might be able to improve blood pressure control.

4.2 Limitations

Some of the limitations of this study include the fact that research was done on a small sample size of a continuing research investigation. Because only 30 participants were initially recruited, results may not represent the entire Mexican immigrant population. In addition, data collection was conducted at one North Texas clinic.

4.3 Recommendations for Clinical Care

In future care of Mexican immigrants with HTN, healthcare providers must ensure that patients receive quality bilingual health teaching related to their illness in order to improve the patients' self-efficacy. Making sure patients understand the importance of blood pressure control to prevent cardiovascular disease even though hypertension is asymptomatic is essential in patient teaching. In addition, it is important to understand the background of the population group. Understanding factors such as the level of acculturation, family income and family responsibility is important in providing specific and beneficial care and teaching. One possible intervention healthcare providers could utilize in their care for these patients is to involve the family in their care. Making family members aware of a patient's condition and need for lifestyle modifications might improve medication adherence, self-efficacy and therefore blood pressure control.

4.4 Recommendations for Future Research

In future research, we should examine ways to improve self-efficacy in the Hispanic community. In addition, we must examine how different strategies of self-care, such as providing each participant with a blood pressure cuff, may affect blood pressure control. Strategies such as incorporating taking medication to the daily routine or setting alarms to promote medication adherence should also be investigated.

APPENDIX A

MORISKY-GREEN MEDICATION-TAKING COMPLIANCE SCALE

Morisky-Green Medication-Taking Compliance Scale (4-item)

Scoring: High-low; yes = 0; no = 1 Range: 0-4

		Yes	No
1.	Do you ever forget to take your medicine?	0	0
2.	Do you ever have problems remembering to take your medication?	0	0
3.	When you feel better, do you sometimes stop taking your medicine?	0	0
4.	Sometimes if you feel worse when you take the medicine do you stop taking it?	0	0

			No
		Sí	
1.	¿Se le ha olvidado tomar su medicina alguna vez?	0	0
2.	¿A tenido alguna vez problemas para recordarse de tomar su medicina?	0	0
3.	¿Cuándo algunas veces se siente mejor, deja de tomar sus medicinas?	0	0
4.	¿Si algunas veces se siente peor al tomar las medicinas, deja usted de tomarlas?	0	0

APPENDIX B

HYPERTENSION SELF-EFFICACY

Hypertension Self-efficacy (5 items)

[Modified from the Spanish Arthritis Self-Efficacy scale; Lorig et al., 1996]

En cada una de las siguientes preguntas, por favor indica el número que mejor corresponda al nivel de seguridad que siente en este momento de que puede realizar las siguientes actividades. [In each of the following questions, please indicate the one number that corresponds best to your level of certainty that you can now perform the following activities.]

1. ¿Qué tan seguro(a) se siente usted de poder tomar la medicina para su alta presión de sangre regularmente? [How certain are you that you can take your high blood pressure medication regularly?]

1	2	3	4	5	6	7	8	9	10
Muy									Muy
Inseg	guro(a	a)							Seguro(a)
(Ver	y unc	ertain)						(Very Certain)

2. ¿Qué tan seguro(a) se siente usted de poder hacer una cita con el médico cuando sea necesario? [How certain are you that you can make an appointment with the doctor when necessary?]

1	2	3	4	5	6	7	8	9	10
Μı	ıy								Muy
Ins	eguro	(a)							Seguro(a)

3. ¿Qué tan seguro(a) se siente usted de poder comprar la receta médica en una farmacia cuando sea necesario? [How certain are you that you can buy the prescription at the pharmacy when needed?]

1	2	3	4	5	6	7	8	9	10
Mu	ıy								Muy
Ins	eguro	(a)							Seguro(a)

4. ¿Qué tan seguro(a) se siente usted de poder reducir la sal en su dieta y hacer actividades físicas regularmente? [How certain are you that you can reduce salt in your diet and do regular physical activity?]

1	2	3	4	5	6	7	8	9	10
Mu	у								Muy
Ins	eguro	(a)							Seguro(a)

5. ¿Qué tan seguro(a) se siente usted de poder medir su presión de sangre en la casa? [How certain are you that you can measure your blood pressure at home?] 1 2 3 4 5 6 7 8 9 10

Muy	Muy
Inseguro(a)	Seguro(a)

Scoring: The score is the mean of the five items. Scores range from 1 to 10 with a higher score indicating greater self-efficacy.

APPENDIX C

DEMOGRAPHIC QUESTIONS

Appendix C

Demographic questions

1. Sexo [Sex]:	Hombre [Male]	Mujer [Fema	le]			
2. Edad (años) [Age (in years)]:					
3. Número de años viviendo en los EEUU [Years living in the U.S.]:						
4. Marital status:	Casado(a) [Married]	Soltero(a) [Single]				
5. Número de familiar	res con quien vive [Numer of f	amily members you l	ive with]:			
6. ¿Cuánto gana usted family, in the same ho Hasta \$10,000 Entre \$10,000 y \$20,0 Entre \$21,000 y \$30,0 Más que \$30,000	l y su familia, en la misma cas ouse, earn every year]: 000 000	a, cada año? [How mu	uch do you and your			
7. ¿Tiene Ud. diabete [Needed to determine	es? [Do you have diabetes?] controlled/uncontrolled BP.]	Sí	No			
 7. ¿Por lo general, que speak?] Sólo Español Más Español qué Ingl Ambos por igual Más Inglés qué Españ Sólo Inglés 	é idioma lee y habla usted? [In 1 lés2 3 iol4 5	general, what langua	ge do you read and			
 8. ¿Por lo general, que home?] Sólo Español Más Español qué Ingl Ambos por igual Más Inglés qué Españ Sólo Inglés 9. ¿Por lo general, en Sólo Español Más Español qué Ingl 	é idioma habla en su casa? [In 1 lés2 3 iol4 5 qué idioma piensa? [In genera 1 lés2	general, what languag	ge do you speak at lo you think?]			
Ambos por igual	3					

Más Inglés qué Español.....4 Sólo Inglés.....5

10. ¿Por lo general, qué idioma habla con sus amigos? [In general, in what language do you speak with your friends?]
Sólo Español......1
Más Español qué Inglés......2
Ambos por igual......3
Más Inglés qué Español......4
Sólo Inglés.......5

Scoring for Acculturation (#7 - #10): The respondent's answers can be averaged across the four items and the score used as an interval scale, where scores closer to five indicate high levels of acculturation while those closer to one indicate little acculturation. Alternatively, the respondents' average scores can be split at 2.99 to create a nominal variable. In this case, a score below 2.99 would correspond to the more acculturated respondents.

APPENDIX D

INFORMED CONSENT

Appendix D

INFORMED CONSENT (English)

PERSON IN CHARGE OF THE STUDY: Donelle M. Barnes

TITLE OF PROJECT: High blood pressure in Mexican immigrants

INTRODUCTION: I am asking for your participation in a nursing study. Your participation is voluntary. Please ask if there is anything you do not understand.

PURPOSE: The purpose of this study is to describe the level of high blood pressure in Mexican immigrants. I am asking you to participate because you were born in Mexico and you have high blood pressure. I want to understand the difficulties of living with and treating high blood pressure for Mexican immigrants living in Texas. If you choose to participate, I will ask you some questions and take your blood pressure here at the clinic.

DURATION: The study will last approximately 15 minutes.

PROCEDURES: If you agree, we will meet here at the clinic in a room where we can talk privately. I will ask you about your adherence to medications, your self-efficacy in treating your BP, and general questions such as your age. Finally, I will take your BP in both arms. This will be a one-time event.

POSSIBLE BENEFITS: There are no direct benefits to you for participating in this study. It will not change your health care at the clinic. The information that I gain from this study may help us in the future to give better care to Mexican immigrants with high blood pressure.

COMPENSATION: At the end of the interview, you will receive a small gift, such as a pen, to thank you for your time.

POSSIBLE RISKS/DISCOMFORTS: You may feel uncomfortable talking about your high blood pressure. This risk is minimal. If you feel uncomfortable, you can skip any of the questions, or you can end the questions whenever you wish.

WITHDRAWAL FROM THE STUDY: You may stop answering questions at any time without problem or loss of health care.

NUMBER OF PARTICIPANTS: I expect 120 participants in this study, half men and half women.

CONFIDENTIALITY: I will not ask you for your name, address, phone number or any other personal information that would identify who you are. I do not care if you are documented or undocumented and will not ask for legal papers. I will keep your identity confidential, and I will

not tell anyone, including the clinic staff, that you have participated in the study. I will not put your name on any printed paper. No one will know that you were in this study. If, in the unlikely event it becomes necessary for the Institutional Review Board to review the research records, then the University of Texas at Arlington will protect the confidentiality of the data to the extent permitted by law. Your data will not be released without your consent unless required by law or a court order. The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate you with it, or with your participation in any study. The Center for Hispanic Studies in Nursing and Health will also have the legal right to review the research records. The data will be kept in a locked office for research purposes only. Once the results are published, the original data will be destroyed. The results of the study will be published and presented at professional meetings, but only as a group of participants. Only the number of men and women, the average age of the group, the number of years living in the United States, and so forth will be reported.

CONTACT FOR QUESTIONS: Questions about this research or your rights as a research participant in this study may be directed to Dr. Donelle Barnes at telephone number 817-272-0108, or to the Chairperson of the Institutional Review Board of the University of Texas at Arlington at telephone number 817-272-3723.

CONSENT: By answering these questions and allowing me to take your blood pressure, you are giving consent to be in this study. I am not asking you for your signature in order to protect your identity and personal information. You can ask me anything that you want any time you want. Please indicate if you understand the information that I have read you, and that you are participating voluntarily.

Date and time of verbal consent:

CONSENTIMIENTO INFORMADO (Español)

PERSONA ENCARGADA DEL ESTUDIO: Daniela M. Barnes

TÍTULO DEL PROYECTO: Presión alta en inmigrantes mexicanos

INTRODUCCIÓN: Estoy pidiendo su participación en un estudio de enfermería. Su participación es voluntario. Por favor, pregunte si hay algo que no entiende.

PROPÓSITO: El propósito del estudio es describir el nivel de presión arterial alta en inmigrantes mexicanos. Estoy pidiendo que participe porque nació en México y tiene la presión alta. Quiero entender las dificultades viviendo con y tratando la presión alta para inmigrantes mexicanos viviendo en Tejas. Si Ud. escoje participar, le preguntaré algunas cosas sobre la presión y mediré su presión arterial aquí en la clínica.

DURACIÓN: Las preguntas durarán aproximadamente 15 minutos.

PROCEDIMIENTOS: Si está de acuerdo, nos reunirémos aquí en la clínica en un cuarto donde podemos hablar en privado. Le preguntaré sobre su adherencia a los medicamentos, su auto-eficacia con su tratamiento, y preguntas generales como su edad. Finalmente, mediré su presión arterial en ambos brazos. Será una reunión de una vez.

BENEFICIOS POSIBLES: No hay beneficios directos a Ud. para su participación en el estudio. No cambiará su cuidado en la clínica. La información que gano del estudio pueda ayudarnos en el futuro dar cuidados mejores a los inmigrantes mexicanos con la presión alta.

COMPENSACIÓN: Al fin de la reunión nuestra, recibirá un regalo pequeño, como una pluma, dar gracias a Ud. ocupar su tiempo.

RIESGOS POSIBLES/INCOMODIDADES: Es posible que sentirá incómodo(a) hablando de la presión alta. Este riesgo es mínimo. Si se siente incómodo(a), puede saltar cualquier pregunta, o puede terminar las preguntas cuando quiera.

RETIRO DEL ESTUDIO: Ud. puede parar contestar en cualquier momento sin problema o pérdida del cuidado de salud.

NÚMERO DE PARTICIPANTES: Espero 120 participantes en el estudio, la mitad hombres y la mitad mujeres.

CONFIDENCIALIDAD: No le pediré su nombre, dirección, número telefonico, ni otros datos personales que identificaría quien es Ud. No me importa si está documentado ni indocumentado y no le pediré papeles. Le mantendré su identidad confidencial, y no diré a nadie que participaba en la reunión, incluyendo el personal de la clínica. No pondré su nombre en ningún papel escrito. Nadie sabrá que estaba en el estudio. Si, en el evento no esperaba es necesario que La Junta

Institucional de Revisa tiene que revisar el estudio, entonces la Universidad de Tejas en Arlington protegerá la confidencialidad de los datos al alcance permitido por la ley. Sus datos no estarán divulgado sin su consentimiento sino requerido por la ley or por un orden del corte. Los datos resultados de su participación puedan ser usados por otros investigadores en el futuro para el propósito de otras investigaciones no detalladas en este consentimiento. En estes casos, los datos no contendrán información de identificación asociado con Ud., ni de su participación en el estudio. El Centro de Estudios Hispanos en Enfermería y Salud tiene el derecho legal revisar los informes del estudio. Los datos estarán guardados en una oficina bajo llave solamente para el propósito del estudio. Después de que los datos están publicados, serán destruidos. Los resultados del estudio serán publicados y presentados en reunions profesionales, pero solamente como un grupo de participantes. Solamente el número de mujeres y hombres, el promedio de edad del grupo, el número de años viviendo en los EEUU, y los otros datos serán reportados.

CONTACTO CON PREGUNTAS: Preguntas sobre este estudio o sus derechos como un participante en el estudio pueden ser dirigidos a la Dra. Daniela Barnes al número telefónico 817-272-0108, o al Director de la Junta Institucional de Revisa de estudios, de la Universidad de Tejas en Arlington, al número telefónico 817-272-3723.

CONSENTIMIENTO: Cuando participe en esta reunión y me permita medir su presión arterial, está dando consentimiento ser en el estudio. No estoy pidiendo su firma para protejer su identidad e información personal. Ud. puede preguntarme cualquier cosa que quiere cuando quiere. Por favor, indique si Ud. entiende la información que le he leído, y que Ud. está participando voluntariamente.

Fecha y hora del consentimiento verbal:

REFERENCES

- Armstrong, K., Ravenell, K. L., McMurphy, S., & Putt, M. (2007). Racial/ethnic differences in physician distrust in the United States. *American Journal of Public Health*, 97, 1283-1289.
- Aranda, J. M., & Vazquez, R. (2004). Awareness of hypertension and diabetes in the Hispanic community. *Clinical Cornerstone*, 6 (3), 7-15. doi: 10.1016/51098-3597904080060-7
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, New Jersey: Prentice-Hall.
- Barnes, D. M., & Lu, J. H. (2012). Mexican immigrants' and Mexican Americans' perceptions of hypertension. *Qualitative Health Research*, 22, 1685-1693. doi: 10.1177/1049732312458181
- Centers for Disease Control and Prevention (CDC). (2012). Vital Signs: Awareness and treatment of uncontrolled hypertension among adults United States, 2003-2010. *Morbidity and Mortality Weekly Report, 61*, 703-709.
- Lorig, K., Stewart, A., Ritter, P., Gonzalez, V., Laurent, D, & Lynch, J. (1996). Outcome measures for health education and other health care interventions. Thousand Oaks, CA: Sage.
- Morisky, D. E., Green, L. W., & Levine, D. M. (1986). Concurrent and predictive validity of a self-reported measure of medication adherence and long-term predictive validity of blood pressure control. *Medical Care*, 24, 67-74.
- Pickering, T. G., Hall, J. E., Appel, L. J., Falkner, B. E., Graves, J., Hill, M. N., ... Roccella, E. J. (2005). Recommendations for blood pressure measurement in humans and experimental animals: Part 1: Blood pressure measurement in humans. *Hypertension, 45*, 142-161. doi: 10.1161/01.HYP.0000150859.47929.8e
- Radhakrishnan, K. (2012). The efficacy of tailored interventions for self-management outcomes of type 2 diabetes, hypertension or heart disease: A systematic review. *Journal of Advanced Nursing*, 68(3), 496-510. doi: 10.1111/j.1365-2648.2011.05860.x

- Rocha-Goldberg, M.P., Corsino, L., Batch, B., Voils, C. I., Thrope, C. T., Bosworth, H. B.,
 Svetkey, L. P., (2010). Hypertension Improvement Project (HIP) Latino: results of a pilot
 study of lifestyle intervention for lowering blood pressure in Latino adults. *Ethn Health*.
 15(3): 269-282. Doi:10.1080/13557851003674997.
- Warren-Findlow, J., Seymour, R. B., & Huber, L. R. B. (2012). The association between selfefficacy and hypertension self-care activities among African American adults. *Journal of Community Health*, 37, 15-24. doi: 10.1007/s10900-011-9410-6

BIOGRAPHICAL INFORMATION

Rayanne Macnee is a graduating senior and Honors Distinction Scholar at the University of Texas in Arlington. She is studying Nursing and minoring in Spanish. While at UTA, she had the opportunity to study abroad at Universidad Antonio de Nebrija in Madrid, Spain during the summer of 2011. She also had the opportunity to participate in an Industrial Engineering Internship and study abroad program that took place at Tecnológico de Monterrey Campus Querétaro in Querétaro, Mexico during the summer of 2012. During these summers she had the opportunity to learn Spanish, live with a homestay and work with a diverse group of individuals. It was during these study abroad experiences that Rayanne first became interested in healthcare challenges faced by the Hispanic population.

Her travels to countries throughout the world in the last four years, including New Zealand, Mexico, Canada, Spain, United Kingdom, Poland, France, and Italy have sparked an interest in public health and the interplay between culture and medicine.

While at UTA, Rayanne was involved with the UTA Honors College and UTA Christians on Campus.

In the future, Rayanne hopes to pursue a career in Nursing and further education that will enable her to be of service to the community with a focus on public health. In the fall of 2014, she plans to attend a Bible Truth and Church Service Training in Southern California and volunteer in the school's health clinic.