OUTLINE FOR POSTER

MANAGEMENT OF HYPERTENSION FROM THE PATIENT'S PERSPECTIVE

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BACKGROUND

Hypertension and treatment failure

- Hypertension afflicts approximately 60 million Americans, a number likely to increase in the cohort of aging baby boomers.[1,2]

- Age adjusted prevalence in racial groups indicate 32.4% prevalence in the non-Hispanic blacks, 23.3% in the non-Hispanic whites, and 22.6% in Mexican Americans.

- Leading factor responsible for cardiovascular mortality and morbidity, and overall mortality.[3]

- Blood pressure lowering is possible only when a person consumes at least 80 percent of the prescribed medication.[4]

- Only 50 percent of people with hypertension comply with advice concerning dietary regimens, physician appointments, and drug therapy.[5]

- Studies by Conrad,[6] Trostle,[7] and Karp[8] using qualitative research reflect the importance of studying adherence from the "insider's perspective" and the influence of the meanings of medications and illness experience in adherence.

- Metaphors or meanings are described as "fundamental to people in perceiving, interpreting, and defining symptom states and in motivating them to seek care."[9]

- Symbolic meanings of medications can be entrenched in personal experience or societal influence.[9]

- Theories of illness can shape the way people deal with their illness and what they perceive will work as far as the treatment is concerned.

- Identity is woven around a person's work, activities, family life, and personal and social relationships. When chronic illness strikes, disruption of one or more of these may occur, leading to "loss of self." Hypertension can be classified under the "at risk" category of chronic illness.[6]

OBJECTIVE

A qualitative study was conducted using grounded theory methodology. The objectives of the study were to:

- Cast light on the meanings that people ascribe to their prescribed regimen and illness.
- Examine identity consequences that result from medication use and illness experience.
- Determine how people's perceptions of their medication, illness, and identity affect their decisions to adhere to recommended regimens.

METHODS

Setting and Access to Participants

- The performance site for the study was the Mile Square Health Center at Chicago.

- All participants needed to be diagnosed with hypertension and to currently be on anti-hypertensive drug treatment.
- A purposive sample of twenty-three participants was interviewed based on eligibility and the willingness to participate.
- Access to participants was possible as clinicians identified eligible people and referred them to the investigator.

Data Collection

- Interviews were conducted in person with participants.

- Interviews lasted for thirty to forty-five minutes. All interviews were audio-recorded and transcribed.
- Interviews were conducted with the help of an interview guide consisting of a set of open-ended questions.
- Pretesting involved three interviews and the data was incorporated into the study.
- Information regarding the participant's age, race, and gender was obtained by way of administering a short demographic survey.

Data Analysis

Transcripts were analyzed individually as well as comparatively.

Open Coding

- Involves comparative analysis, the asking of questions, and comprehending the whole range of meanings of the participants' responses.[10]
- Data were scrutinized by conducting a line-by-line analysis to look for key themes and subsequently broken down into more manageable parts.
- Either a line or paragraph of the data is examined and then given a name or label.
- Concepts are labeled phenomena that can be grouped into categories.

Axial Coding

- Relates major categories and reveals important relationships that could form the basis of theory building at a later stage.
- The three basic components of the technical scheme to organize these relationships are as follows:
- "*Conditions,*" which answer questions such as why, how come, where, and when.
- "*Actions or interactions,*" which are deliberately undertaken by participants in an attempt to address phenomena or solve issues. Actions answer questions such as whom and how.
- "*Consequences or outcomes*" of actions undertaken can be answered by examining the outcomes of actions or the refusal to undertake actions.

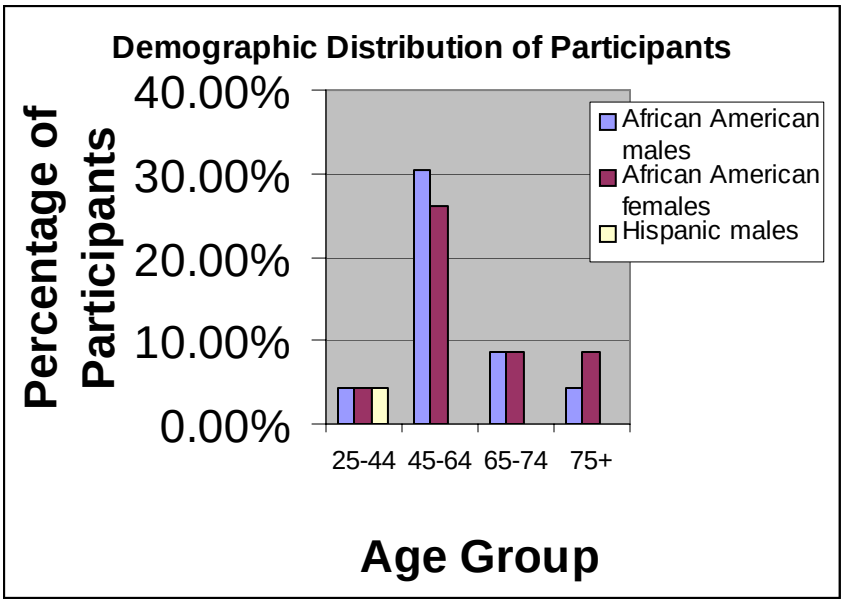
RESULTS

Condition Categories: Demographic factors, meanings of medications, meanings of illness.

Action categories: Changes in lifestyle, act of taking medication.

Outcome categories: Positive self-concept, accommodation.

Demographic Information



Clinical Information (not sure whether to incorporate)

- Six participants had diabetes mellitus, while two had arthritis and three people had complications including cardiac bypass, congestive heart failure, and valve replacement.

➢ **The Meanings of Medications**

1. Medication is efficacious

Perceptions regarding the efficacy of the medication were primarily based on present health status as well as the actual blood pressure reading.

I don't believe it - I know it. Cause I feel better. I don't have no headaches and the pressure is down. (Subject #13)

2. Medication is a reminder of the regimen

The sight of the medication was reported to have reminded people of their regimen. “I try to keep it sitting so that when I get up in the morning I remember to take it.” (Subject #9)

3. Medication causes dependence

The necessity and act of taking the medication everyday created a sense of dependency for some participants. The association of the word “drug” with illicit drug use is overwhelming.

I don't have any side effects; I just don't like it being habit forming whether its a drug from the store or a drug from the corner – its a drug. Some drugs are good and some drugs are bad. (Subject #19)

4. Medication is a hassle

Many participants voiced their displeasure at having to take medication every day of their lives.
I don’t like to do anything everyday but its something I just have to do, I just wish I didn’t have to do that. (Subject #18)

The need to discontinue using medication can influence a person to test the drug by not taking it for a few days just to see what would happen.

I just got sick of taking the medicine, just sick of taking these pills every day. I just wanted to see if it was working or not so I stopped taking it. I would prefer not taking the medication if I could. (Subject #4)

5. Medication is a part of life

Acceptance of the medication closely resembles a feeling of being resigned to taking treatment everyday, and yet holding on to the hope of getting off the medication at some point in the future.

It is something I have to deal with for the rest of my life. I'm going to try to take my medication and try to get myself better so I don't have to lean on that medication all the time. (Subject #20)

Over time, some were able to accommodate medication-use in their lives.

Right, just like eating. It's a part of my existence. I know it's important so its just a part of my living. I don't feel bad and I know its a part of living just like eating gives me more energy. (Subject #10)

6. Medication is a life-saver

People with complications were more inclined to view their medication as life-saving. It appears that direct personal experience heightened the awareness of fatal consequences.

He (the doctor) said if you don't take it, you will die. He said, "Are you ready to go?" I said, "No, not really." It is mandatory that I take my medicine. (Subject #7)

7. Medication causes problems

The majority of participants did not claim to have experienced problems due to drug side effects. Fear of side effects was more dominant than the side effects themselves.

I am wondering if the medication is doing something else to another part of my body. Yeah, after you're on it for such a long period of time, it is scary taking it every day." (Subject #4)

Three male participants complained that *Procardia*^{R} was particularly responsible for reducing sex drive and affecting sexual function.

I was going to Bethany Hospital taking 30mg of *Procardia*^{R}. I did have a small problem with the *Procardia*^{R} affecting my sex drive. (Subject #16)

- **The Meanings of Illness**

Illness definitions too are critical in the understanding of how people view their condition in the context of their daily existence.

1. Hypertension kills

People shared their fears about death and disability. Participants expressed deep concern about having a stroke or heart attack and damage to kidneys.

Well, it (high blood pressure) means that you are at risk and can die from it. You could have a stroke or heart attack. (Subject #18)

Warnings from their doctor increased awareness but when presented as threats, were not well received.

I been threatened with strokes, and I don't think that's a healthy way to bring it to a person. (Subject #19)

2. High-pertension, high blood pressure, and high blood

Most participants believed that the above conditions were the same. “Hypertension is the same thing as high blood pressure, just a more obscure word.” The cause was primarily attributed to dietary habits, heredity, obesity, stress, and lack of exercise. This is in keeping with the lay illness model of “high blood” in Heurtin-Roberts’s study. [11]

Only three participants revealed images of hypertension being different from high blood pressure and having to do with “nerves,” a perception similar to the lay theory of “high-pertension.”[11] Medication was still considered useful.

One factor that can be related to stress but is unique to some of the people interviewed concerns the neighborhood being a source of uneasiness and fear.

> *Seeing different things like people doing drugs, you can't sleep at night because you have to watch your back all the time. When you walk on the street you don't trust nobody. I think if I could get away from where I live and be in a better neighborhood, I think I could live a better life. (Subject #20)* *may exclude this*

Unique situations can arise in the presence of complications, as seen in the case where pain and worry due to arthritis were considered to have caused hypertension.

> I told you that I'm 75 years old, and I have this problem with my hands. I can't comb my hair; I can't bend my knuckle. This is enough to bring my blood pressure up. (Subject #11)

➢ Identity Consequences

1. Changes in lifestyle

Most changes involved dietary habits. Several people agreed that changing their eating habits was a difficult task to accomplish.

> Changing the way I was eating was very hard especially when you get up in age; it is hard to make changes in things you like. Like the salt, it is hard to go without it, but it's a learning process, I suppose. (Subject #19)

Exercise was seldom incorporated as a daily or weekly activity. A serious event or hospitalization appeared to have greater potential than a routine recommendation to motivate a person to quit smoking and drinking.

2. Changes in routine activities

Participants did not report changes in daily activities as a result of having HTN.

> They (routine activities) haven't really changed - they've stayed the same. I wake up in the morning and take my medicine and I go on about my day. I just have to put some exercise in there. (Subject #21)

Disabling chronic conditions such as arthritis had much more impact on activities than HTN alone.

3. Changes in self-concept

Participants revealed positive changes in self-concept, which emerged as a result of successful changes in lifestyle, one of them being reduction in weight.

> I feel good about myself and I'm making changes in my life and doing something with my life. I changed the way I eat and everything. (Subject #8)

➢ The Process of Integration

1. Initial rejection

> I was like no, I'm too young for this. I'm too young but I guess there is no age limit. (Subject #21)

2. The sense of discovery

> A few respondents looked upon it as new information, using which they could direct a future course of action.

> I am glad that I am aware that I have it. I know before they told me I had it I would be walking and I would get tired fast and wouldn't understand that. (Subject #17)

3. Unchanged identity

> Identity consequences were thus minimal and were linked to implementation of lifestyle modifications.

4. Acceptance of hypertension

> Most participants reflected a high degree of acceptance and some shared the hope that they might be able to get off the medication in the future.
>
> I accepted that I have it and I know that it's something I have to work on, I'm trying to work on not even having to take the medicine anymore. (Subject #21)

- **Adherence**

Factors such as perception of drug efficacy, fear of side effects as against side effects themselves, fear of dependence, alcohol addiction, and concerns about consuming unnecessary or excessive doses were associated with self reported claims of non-adherence.

Many expressed an underlying desire to get off the medication.

> No, I didn't (feel different). See that is just it, if I felt different I would know that I was off it and something wasn't right. (Subject #19)

<u>Adherence and medication-related problems</u>

The concern that *Procardia*^{R} might affect sexual function influenced one male participant to skip medication regularly in an attempt to prevent possible side effects.

> I feel that its okay to miss it; I don't have any problems. If my pressure is up then I go back to my regular taking it. That is a chance I have to take. I just take one pill a day and missing one pill is not going to hurt anything. (Subject #13)

<u>Adherence and physicians' remarks</u>

The mere mention of the new drug being "stronger" influenced a man to avoid taking the medication everyday for fear that it would be "too strong."

> When she (the physician) changed it, I was like I was doing okay so why would you change it to something stronger? She said it was stronger so I just figured it was and I wouldn't take it as often. (Subject #6)

PRACTICE IMPLICATIONS

- Communicating how medications work during oral counseling.
- Helping people "unlearn" facts about medications and address fears of dependency.
- Allay fears of side effects and have open discussions related to effects on sexual functioning.

- Projecting the life-saving nature of some medications without waiting for a catastrophe to occur.
- Creating awareness with a conscious attempt to avoid presenting warnings as threats.
- Focus on disease management programs and build rapport with smaller numbers of patients.
- Emphasize lifestyle modifications especially since they may lead to improved self-concept.
- Clarify confusion between diabetes and HTN and their regimens for people with both conditions.

LIMITATIONS

- Single site study.
- Conducted in a practice setting.
- Social desirability bias in face-to-face interviews.
- Inability to access drug specific information for each participant.
- Self-reported measure of adherence used.
- Generalizability neither intended nor sought.

CONCLUSIONS

- Medication meanings influenced medication use.
- Participants were aware of the seriousness of HTN.
- Common changes reported involved lifestyle modifications.
- Routine activities were not reported to have changed and damage to identity was found to be minimal.
- Positive self-concept was associated with achievement of lifestyle changes.
- Further research in areas such as the perceptions of threat and dependency issues seems warranted.
- It may be possible to quantitatively assess some concepts, which appear important in order to facilitate generalizability.

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