

# **The Etiology and Experience of Falls: Community-Dwelling Older Adults', Perspectives**

**Anthony A. Adeniran, DNP, MSN, RN, PCA  
Sr. Vice President, Operations  
Health1st LLC  
Drexel Hill, PA**

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# Objectives

At the end of this presentation, participants will be able to:

- Discuss perceived etiologies of falls from the views of community-dwelling older adults.
- Outline strategies to assess, design and implement an effective fall prevention program for elderly home bound patients living at home or in community settings

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# Background

- Falls represent a significant public health problem for older adults
- Cost the U.S. over \$30 billion in direct medical costs. (Stevens, Corso, Finkelstein, & Miller, 2006).
- 78% of older adults fall-injuries occurs in the community Kochera ((March 2002)
- Fall-related injuries treated in the ED increased annually from 1.6 Million in 2001 to 2.4 million in 2012 (Orces & Alamgi, 2014).

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# Problem Statement

- Falls ranks high among serious clinical problems for older adults
- While community-dwelling older adults (CDOA) have higher risk for falls, there is less focus on prevention for CDOA (Berland, Gundersen, & Bentsen, 2012; Castle & Sonon, 2006; Madigan & Tullai-McGuinness, 2004).
- Studies assessing the views and experience of falls from CDOA vantage point are scant
- Opportunity exists to enhance fall prevention strategies by exploring the factors that contribute to falls from the views of CDOA

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# Review of the Literature

- Effective prevention and management present challenge
- CDOA falls have morbidity and mortality implications
- Prevention is a key to reducing and eliminating falls and mitigating fall-related consequences (de Guzman et al., 2013; Hektoen et al., 2009; Hu et al., 2015; Orces & Alamgi, 2014).
- Fall result from complex mechanisms of a combination of varying factors (Greany & Di Fabio, 2010; Rubenstein, 2006; Yamashita, Noe, & Bailer, 2012).
- Definitions of falls varies among researchers

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# Factors Contributing to Falls

Categorized into intrinsic and extrinsic factors

## **Intrinsic factors**

- Health history
  - Age
  - Gender
  - Mobility problems
- Psychological illness

(Fabre et al., 2010; Rosen et al., 2013).

## **Extrinsic factors**

- Effects of medications
- Home or community hazards
  - Loose rugs
  - Poor Lightening
  - Inappropriate foot wear

(Chase et al., 2012).

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# Methods

- **Design-** Descriptive qualitative project
- **Participants-** Medicare eligible CDOA living in the Delaware and Philadelphia counties
- **Sampling -** Purposeful sampling technique
- **Sample size** 5 participants

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# Inclusion and Exclusion Criteria

## Inclusion Criteria

- Age 65 years and older
- Ambulatory
- Had experience of fall within a year
- Fall can either be indoor or outdoor
- English speaking

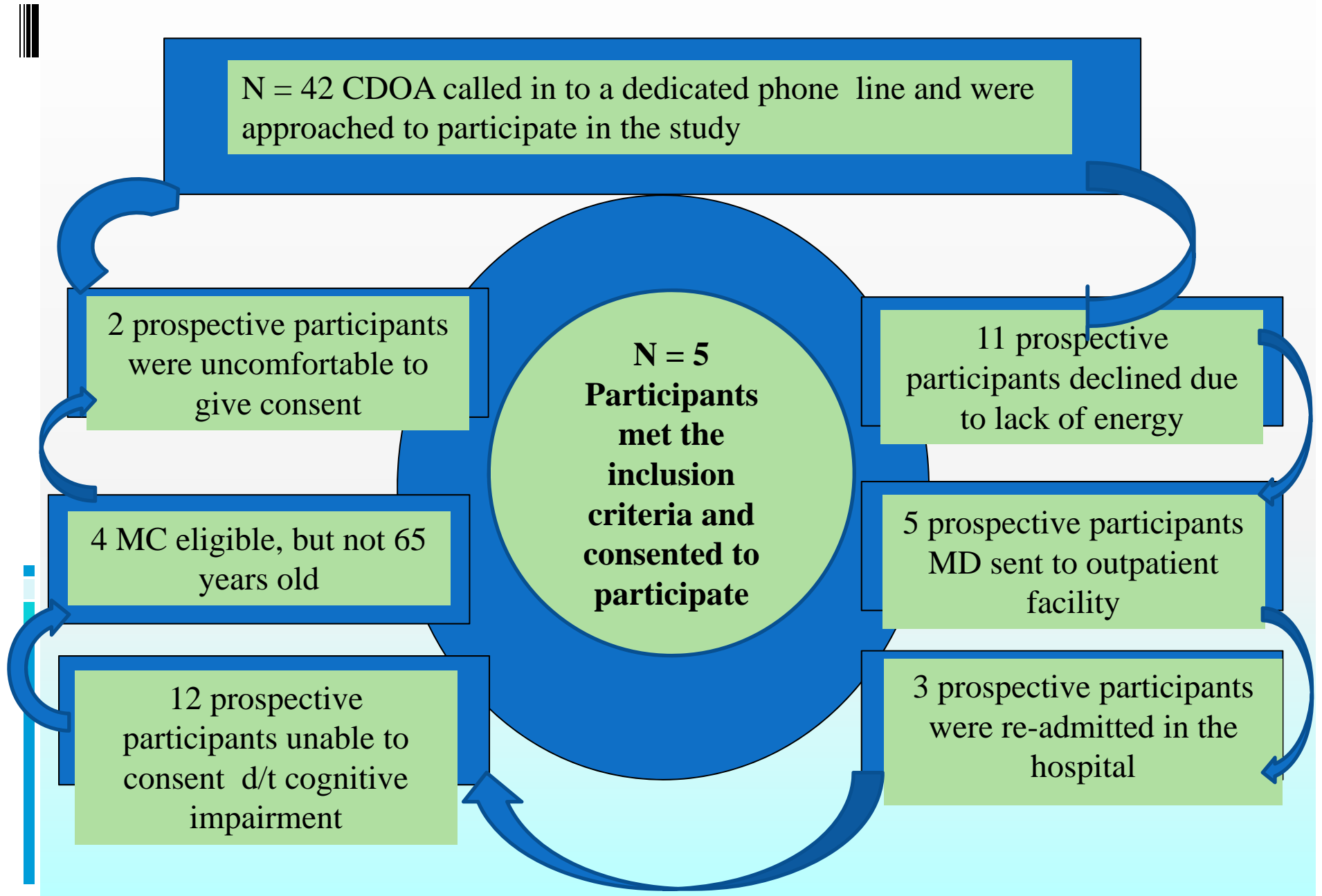
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## Exclusion Criteria

- Younger than 65 years
- Non-ambulatory/Bed or Wheel chair bound
- No fall within a year
- Non-English speaking



# Recruitment Process



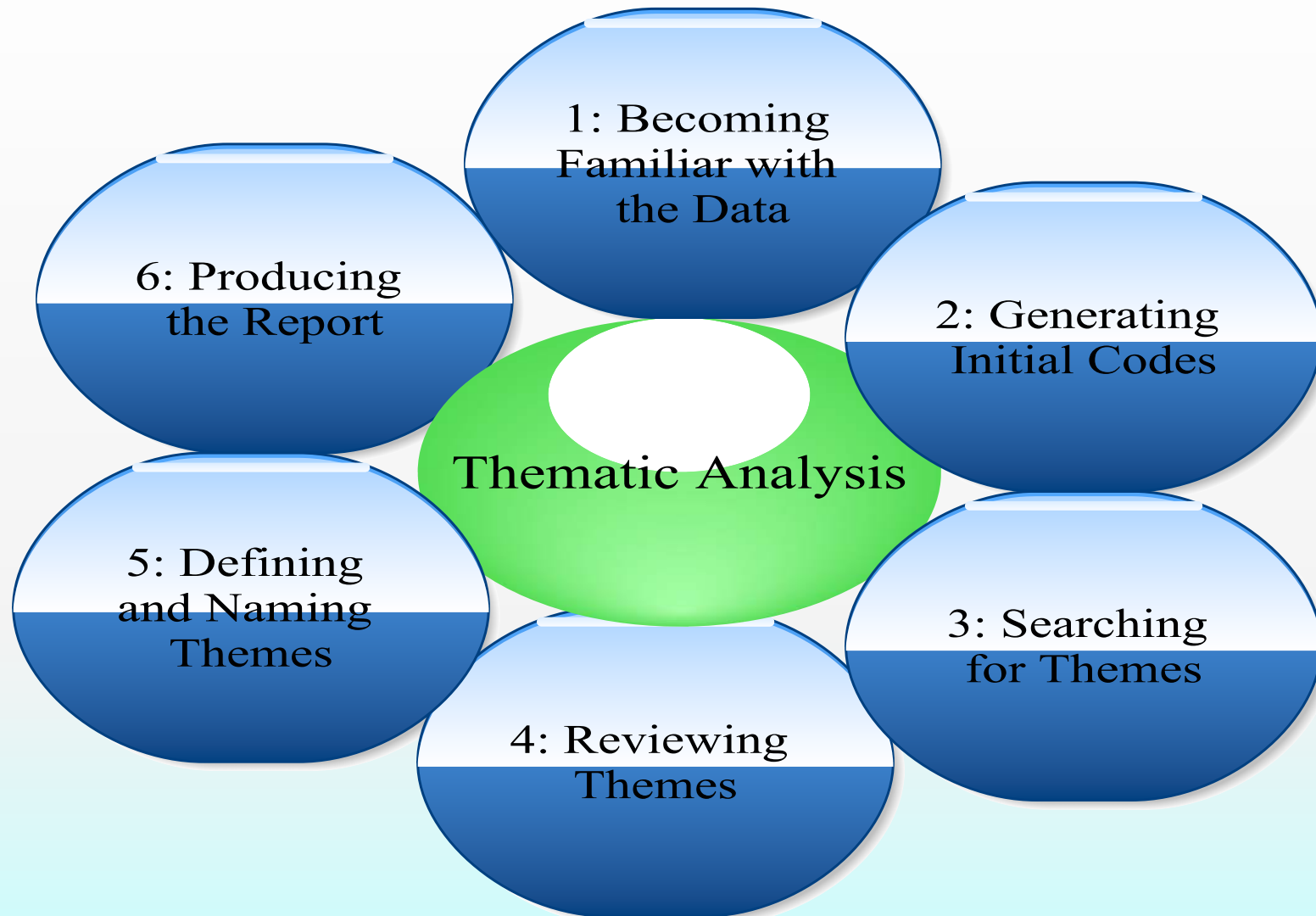
# Data Management and Analysis

- PL collected and managed all project data
- Socio-demographic data was entered into an excel database in a password protected computer
- Descriptive statistics was used to report the socio-demographic data
- Each interview was audio recorded and transcribed verbatim
- Transcribed interviews were de-identified for anonymity and stored in a secured computer

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# Thematic Analysis



(Anderson, 2007; Burnard, 1991)

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# Results

## ● **Socio-demographics Questionnaires:**

- 1) Socio demographics
- 2) Home structure, living arrangements, device and location of falls
- 3) Reported medical conditions

## ● **Semi-structured interviews**

- 1) Perceived etiologies of falls
- 2) Perceived quality of life following fall experiences

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# Results: Socio-demographical Characteristics

TABLE 1

## Participants social-demographics

CHARACTERISTICS	NUMBER	PERCENT
<b>AGE</b>		
65-75	0	0
76-85	4	80
86 >	1	20
<b>GENDER</b>		
Female	4	80
Male	1	20
<b>RACE</b>		
Caucasian /White	1	20
African-American/Black	4	80
<b>MARITAL STATUS</b>		
Married	0	0
Widowed	2	40
Single/Separated	3	60
<b>RELIGION/DENOMINATION</b>		
Catholic	1	20
Jehovah Witness	1	20
Baptist	2	40
Methodist	1	20

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# Results: Home Structure, Device and Falls

Table 2		
Home structure, Living Arrangements, Adaptive Device, Location of Falls, and Injury		
CHARACTERISTICS	NUMBER	PERCENT
<b>HOME STRUCTURE</b>		
Single	3	60
Senior Citizen Apartment	1	20
Row	1	20
<b>LIVING ARRANGEMENTS</b>		
Living alone	2	40
Live with one or more family members	3	60
<b>LOCATION OF ALL FALLS</b>		
Outdoor	6	27
Indoor	16	73
<b>USE OF ADAPTIVE DEVICE</b>		
Yes	5	100
No	0	0
<b>TYPES OF ADAPTIVE DEVICE</b>		
Cane	1	20
Walker	2	40
Cane and Walker	2	40
<b>INJURY SUSTAINED FROM FALLING</b>		
Yes	4	80
No	1	20

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# Results:

Table 3		
Reported Medical Conditions		
Characteristics	Number	Percent
<b>REPORTED MEDICAL CONDITIONS</b>		
Anxiety	1	20
Arthritis	5	100
Asthma	1	20
Depression	3	60
Diabetic Mellitus	2	40
Hypertension	5	100
Memory Problems	2	40
Notes		

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# Results: Semi-Structured Interviews

Revealed a total of 31 codes collated to 7 Themes

● 18 codes 3 themes described participants perceived etiologies of fall

● 13 codes 4 themes described perceived quality of life following their fall experiences

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## 18 Codes

- Lost balance
- Suddenness/Quick/Fast movement
- Accident/Passed out
- Transients Memory loss
- Legs gave way
- Self-blame/not paying attention
- I don't know what happened
- I was distracted
- Denial

- Dizziness/Weakness – Light-headedness
- Tiredness
- Changes in the body
- Vulnerability

- Tripped/stumbled on something
- Slipped on ice
- Broken table or chair
- Dark in the room
- Leg caught on something

## 3 Themes

### **Unknown/Rationalization/Situational**

*“You know, I can't really tell you why I fell or what caused me to fall...ahh... I guess... I must have fallen in a hurry... it was just a quick movement and I was on the floor.”*

### **Physiological/Intrinsic Factors**

*“I was lightheaded and fell...uh, at my age, and there is just so much you can push yourself to do. A lot of changes have taken place over the years...”*

### **Environmental/Extrinsic Factors**

*“... tripping over the rug in my bed room. I was not looking as I got up to go to the bathroom. It was dark in the room because it was the middle of the night and the light was off, so I tripped on the rug...”*

# Results: Perceived Quality of Life

13 Codes	4 Themes
<ul style="list-style-type: none"> <li>• Reliance on others</li> <li>Ageism</li> <li>• Stigma</li> <li>• Stereotypes</li> </ul>	<p><b>Threat to individual autonomy and personal dignity</b></p> <p><i>“One of them said, “She may be hard to hear.” A lot of people yell when they speak with me, thinking ...e... I... I am old , I must not hear very well. These types of behavior make you wonder...”</i></p>
<ul style="list-style-type: none"> <li>• Burden of adaptive/assistive devices</li> <li>• Injury</li> <li>• Carefulness/ Safety conscious</li> </ul>	<p><b>Limitations due to inevitable philological decline</b></p> <p><i>“I like the cane better, that is easier to use, it is hard to take that walker everywhere you go, see how narrow my hallway, and it is too much trouble to use the walker. I only go to where I can get to...”</i></p>
<ul style="list-style-type: none"> <li>• Snow/Ice/Steps</li> <li>• Loose rugs</li> <li>• Poor lightening/Dark room</li> </ul>	<p><b>Environmental hazards (EH)</b></p> <p><i>It is frustrating that everything that looks pretty around you is another reason you can fall. I was told to take off my nice rugs, the one down here and them in my bedroom, umm, because I can trip on them again...</i></p>
<ul style="list-style-type: none"> <li>• Irritation</li> <li>• Fear and Worries</li> <li>• Acceptance and Coping</li> </ul>	<p><b>Psychological Effects</b></p> <p><i>It makes you worry more... You’re afraid, and worry because you want to... sure you don’t fall and pull your pacemaker loose ....it almost pushes you in a box in your mind”</i></p>

# Strategies

- Accurate assessment of individual fall risk
- Individually tailored intervention to target the CDOA fall risk
- Medication Modification
- Exercise (Strengthening, Balance, and Endurance)
- Environmental Modification/Assistive Technology
- Psychological Empowerment

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# Contribution to the Literature

- Reveals unique perspective on the causes of fall and the implications of the fall experience to perceived quality of life for five CDOA
- Provides important foundational information that future quantitative and qualitative studies can build on
- Contributes to a small but developing body of research exploring implications of the fall experience to perceived quality of life
- Small sample size, cannot be generalized

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# Future Direction



Larger sample, and more qualitative studies are needed to provide additional information to:

- Guide the development of targeted fall prevention, intervention and quality of life enhancement strategies for CDOA
- Inform fall prevention policy and strategies, and to develop services delivered by community health agencies

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# Thank You for Listening!

**Anthony A. Adeniran, DNP, MSN, RN, PCA**

[aa.operations@health1stcares.com](mailto:aa.operations@health1stcares.com)

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