

Robotic Pets as Companions for Socially Isolated Older Adults

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PURDUE
NURSING
BUILDING A LEGACY, SHAPING THE FUTURE

Use of Robotic Animals

- **Purpose:** To examine the use of a robotic dog as a companion for socially isolated older adults

Research Questions

- Determine how older adults respond to robotics dogs
- Examine the influence of robotic dogs on depressive symptoms, morale, and life satisfaction



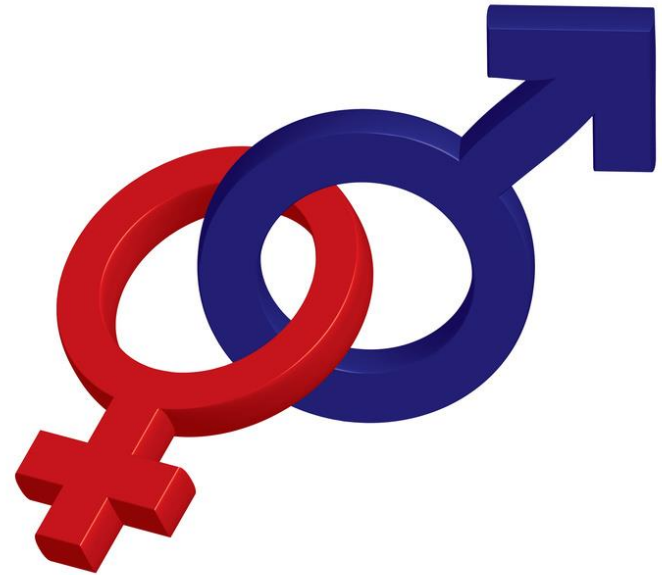
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Sample

- Utilized older adults in a variety of assisted living settings
- Inclusion Criteria
 - Age 65+
 - Live alone
 - MMSE 23+
 - Did not presently have a Pet

Sample

- N=15
- Gender
 - Female =13
 - Male = 2
- Mean Age 84 years
 - Range 69-98
- Mean MMSE 28



Sample

- Race
 - Caucasian 87.5%
 - Native American 6.3%
 - Black 6.3%
- Marital Status
 - 10 widowed
 - 2 married
 - 2 never married
 - 2 divorced



Methods- Baseline Data

(6 weeks prior to arrival with AIBO)

- Demographic Information
- Socialization Patterns
- Function- KATZ Activities of Daily Living
- Cognition-Folstein Mini Mental State Exam
- Depression-
 - Geriatric Depression Scale
 - CES-D Depression Scale

Methods- Baseline Data

- Morale
 - Philadelphia Geriatric Morale Scale
 - Life Satisfaction Scale
- Attitudes
 - Pet Attitude Scale
 - Technology Attitude Scale

Methods- Treatment (AIBO arrives)

- Data Collection
 - MMSE, ADL, Morale, Depression, Changes in demographics
- Introduce AIBO
- AIBO Interaction- Video recorded
- Data Collection regarding impressions of AIBO (Meta questions)
- Introduce Journal

AIBO Activities

- Participants are invited to interact with AIBO as often as they would like.
- Participants are invited to do what ever activities they would like to do.
- Activities and time with AIBO are recorded in a journal



Methods- Treatment

- 3 weeks
 - AIBO Interaction- Video recorded
 - Answered questions
 - Trouble shooting



Methods- Post (AIBO leaves)

- Data Collection
 - MMSE, ADL, Morale, Depression, Changes in demographics, Socialization patterns, Attitude Scales
- AIBO Interaction- Video recorded
- AIBO Impressions (Meta questions)
- Journal Collection
- Feelings toward experience

Results: Responses

- Pre-test
- What does AIBO need?
 - Batteries
 - Electricity
- Is AIBO male or female?
 - Male because of the color
- Post-test
- What does AIBO need?
 - To be held
 - Someone to talk with
- Is AIBO male or female?
 - Female because of the personality

Responses

- What did you like to do with AIBO?
 - Talk with it
 - Hold it
 - Pet it
 - Show it to other individuals

AIBO as a Companion

- What is a companion
 - Someone you talk with.
 - Someone you confide in.
 - People who support one another
- “Did you confide in AIBO?”
 - Yes = 11 No = 3
(AIBO was mechanical and could not respond)
- “Would AIBO be a good companion?”
 - Yes 12, No = 2
(ALL felt AIBO was fun and entertaining)

AIBO as a Companion

- “Did you talk with AIBO?”
 - Yes = 15, No = 0

- “If you were alone in your room, would you feel better if AIBO was with you?”
 - Yes = 15, No = 0

Quality of Life

- Life satisfaction
 - Baseline = Mean 32.7
 - Post = Mean 29.0 (improvement)

- Depressive symptoms
 - Baseline = Mean 28.6
 - Post = Mean 27.5 (improvement)

Quality of life

- Change in frequency of visitors

S= 45.5 P <0.001

- Change in activity

S= 23 P value <0.063

Possible Outcomes

- Increased morale
- Increased physical activity
- Increased socialization
 - Visitors
 - Telephone



Mixed Media

