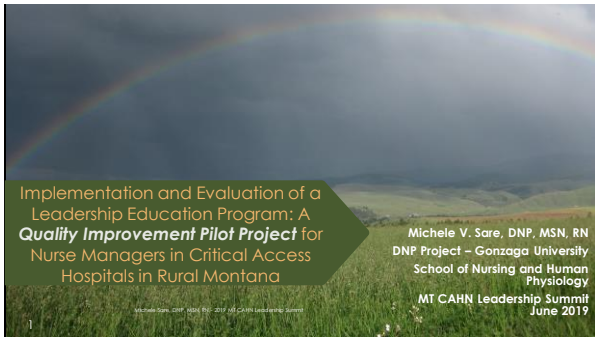

Implementation and Evaluation of a Leadership Education Program: A *Quality Improvement Pilot Project* for Nurse Managers in Critical Access Hospitals in Rural Montana
Michele V. Sare, DNP, MSN, RN
DNP Project – Gonzaga University
School of Nursing and Human Physiology
MT CAHN Leadership Summit
June 2019
1

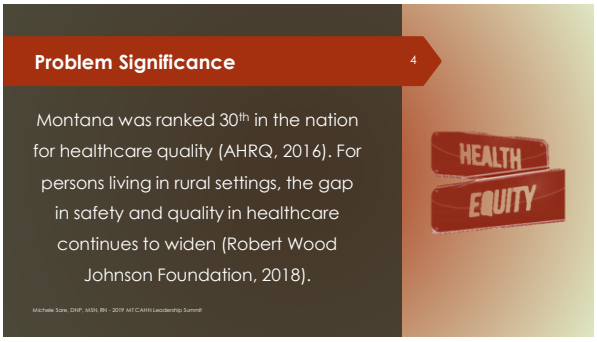
1

2
Acknowledgments…*It takes a village*…
Project Advisor & Committee Chair – Dr. Brenda Senger
Academic Advisor & Committee Member – Dr. Jane Tiedt
The Staff and Faculty at *Gonzaga University School of Nursing & Human Physiology* – especially Dr. Neva Crogan, Susie Maher, Rachel Young, Dr. Mary McFarland, Jennifer Towers, Assistant Dean, Dr. Lin Murphy, Interim Dean, & Dr. Elaine Radmer & the IRB Committee at GU
Dr. Casey Blumenthal, President at MT CAHN, the Leadership Council – and the magnificent participants from across MT CAH

2

Problem Identification
3
Stakeholders in healthcare have struggled to address the gaps and chasms in healthcare delivery.
Leadership is a cardinal nursing competency necessary to increase quality, access, and value in healthcare.
A survey from the Montana CAHN (2017), along with several national studies (IOM, 1999; IOM, 2011; McAlearney, 2008; RWJF, 2018), conclude there is a need for nursing leadership to improve quality in rural healthcare across the United States.
IOM
Institute of Medicine
NAM

3


Problem Significance
4
Montana was ranked 30th in the nation for healthcare quality (AHRQ, 2016). For persons living in rural settings, the gap in safety and quality in healthcare continues to widen (Robert Wood Johnson Foundation, 2018).
HEALTH
EQUITY

4

Project Goal

5

The purpose of this **quality improvement** scholarly project was to **pilot** an online nurse leadership education program for nurse managers working in rural critical access hospitals (CAHs) in Montana. The educational leadership program selected was titled *Nursing Leadership: Empowering Nurses in Latin America and the Caribbean* from the Pan American Health Organization (PAHO) (2017).

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School of Nursing & Human Physiology

MONTANA CAHN
Montana Center to Advance Health Through Nursing
Better Health. Best Practice. Exceptional Leaders.

5

The QI potential:

6

- The PAHO leadership education program holds the potential to enable nurse managers to:
  - Advance their abilities to proficiently function as organizational leaders.
  - Engage in approaches to problem-solve and improve patient safety and quality in CAHs in Montana.

6

Project Aims:

7

- 1) Measure leadership knowledge.
- 2) Assess and explore demographic data.
- 3) Measure perceptions of leadership.
- 4) Evaluate participant satisfaction of the online leadership education program.

7

Literature Appraisal

8

Institute of Medicine 1999 – 2015 (NAM → 2030)

1999 *To Err is Human…*	2003 *Keeping Patients Safe…*	2004 *Transformational Leadership…*

2011& 2015 *The Future of Nursing Leading Change Advancing Health*

8

Literature Appraisal

9

American Nurses Association (ANA)	The public has a right to expect registered nurses to demonstrate competence in professional practice and leadership and believes that leadership competencies can be defined and measured (ANA, 2013).
Nurse Leadership Education Program	These competencies were used as a benchmark for choosing a leadership training program for this project.

9

Literature…

10

Montana Center to Advance Health through Nursing (CAHN)	MT CAHN sent a leadership survey (MT CAHN 2017 Leadership Rapid Response Survey December) to 137 nurse managers working in various rural hospitals across Montana.
n = 42 revealed a gap in leadership knowledge & skills in nurse managers working in rural Montana	Of nurses surveyed, 30.95% reported that they did not believe that they had the necessary leadership skills for their role and 85.71% did not believe nurse leaders working in rural Montana have the leadership skills they need to address the challenges of rural healthcare.

10

Literature…

11

Gonzales, Boswell, and Marquez (2018)	Reported a need for leadership education for rural nurse managers.
Riley and Schmidt (2016)	Continuing education is critical to maintaining standards of patient safety and quality. Rural nurses value online learning - its access and flexibility with asynchronous virtual classrooms. Cost and time are often factors when considering participation in continuing education.

11

Literature…

12

Pan American Health Organization (PAHO)	PAHO has developed a free leadership course that has been used since 2015 to train nurses in the Caribbean and Latin America.
PAHO's Nurse Leadership Education Program	The course is self-paced and asynchronous and can be completed in any time configuration appropriate for individual participants.

12

Literature…

13

RWJF, ANA, & the IOM call for nurses to advance healthcare through leadership in every setting

Providing rural nurse managers with a leadership program that meets competencies, while offering affordability and access, will help them to employ leadership strategies to advance safe, high-quality, and effective healthcare:

The PAHO course meets these criteria.

13

Literature Synthesis

14

This literature review revealed that there is one constant and common thread:

Quality assurance and quality improvement in healthcare requires that there be more nurses who are skilled, knowledgeable, and able to competently execute and navigate leadership competencies.

14

Literature Synthesis 2

15

There is a paucity of research on nurse leadership and rurality.

The drivers of healthcare, like the RWJF and the IOM, call for nurses to lead in order to advance health in every setting.

15

Literature Synthesis 3

16

If rural nurse managers are to employ leadership strategies to advance safe, high-quality, and effective healthcare, more cost relevant and accessible leadership development programs need to be universally available.

The PAHO nursing leadership program meets these criteria.

16

17

Methods - Design

- The design was a pilot quality improvement (QI) education project that used an open source, evidence-based, online nurse leadership course.
- Participant knowledge, learning, perceptions, demographics, and satisfaction were analyzed using mixed-method studies from three surveys.
- The PAHO course was comprised of eight leadership modules with various teaching strategies to enhance and promote learning.

17

18

Design…

- The course was self-paced and asynchronous, could be completed in any time configuration appropriate for individual participants, and was housed online through the PAHO Virtual Campus of Public Health.
- Email reminders were sent each week and informational videos were posted on a website developed to keep participants actively involved in the program (Riley & Schmidt, 2016).
- The total learner's time commitment for this program was 40 hours.

18

19

Methods - Ethical Considerations

- Approved by Gonzaga University's Institutional Review Board (IRB).
- The PAHO nurse leadership course was free of charge & open to all participants.
- There were no institutional or personal financial commitments from the participants, or conflicts of interest.
- Participants chose a uniquely coded identifier to maintain confidentiality.
- Participants were not obligated to report pre or posttest results.

19

20

Ethical Considerations…

- Confidentiality and privacy were maintained by the project lead who kept the participant list separate from deidentified names.
- No individual results were/will be published, only aggregate data.
- Participation was voluntary, and participants could withdraw at any time.
- There was no reimbursement for participation or for completing the course and surveys.
- As a reward for program completion, participants received 32 free contact hours through the Montana CAHN.

20

The Rural CAH Setting

21

- "Rural" is defined by the U.S. Census Bureau (n.d.) as having < 50,000 persons.
- 47 of Montana's counties are rural.
- Montana has a total population of 1.05 million people, ranking 44th in the U.S.
- 29 Montana counties (52%) have fewer than 8,000 persons (U.S. Census Bureau, 2010).
- Rurality is a factor in health outcomes.
  - Distance.
  - Access.
  - Quality.
  - HPSA (HRSA, n.d.).

21

Critical Access Hospitals (CAHs)

- Centers for Medicare and Medicaid Services (CMS) designation.
- CAH - designated by the CMS - address fiscal limitations of small jurisdictions to serve as a limited service hospital to provide essential healthcare services to rural communities (CMS, 2017).
- The project's participants came from **20 of Montana's 56 counties** – with an average bed size of 20.96 and representing **40.8%** of the **state's rural counties** and **42% of Montana's CAHs.**

22

22

Participants

23

- **A convenience sampling** of nurse managers working in Montana CAHs.
- **Inclusion criteria:**
  - Currently working in a management position - such as Directors of Nursing (DON), Assistant Directors of Nursing (ADON), and/or as charge nurses.
  - Nurse managers included licensed practical nurses (LPNs) with a diploma or certificate or registered nurses (RNs) with either a Graduate (MN), Bachelor (BSN), or Associate (ADN) degree in nursing.
  - Active unencumbered Montana license.
  - Currently practicing in a Montana CAH.
  - Speak and write English.
  - No exclusion criteria were specified.

23

Data Collection

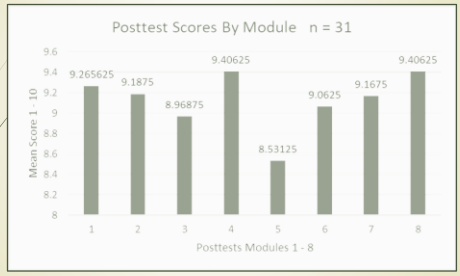
24

- *Twenty-nine participants* meeting inclusion criteria completed all program requirements **(n=29)**.
- ***Descriptive statistical methods*** were used for data analysis.
- **Four data tools**, that included both **quantitative and qualitative responses**, were used to collect data to **achieve the project's four aims**.
  - **1) The Leadership Survey: Demographics** - collected prior to the start of the program.
  - **2) Leadership Survey: Pre-Program** - collected prior to the start of the program.
  - **3)** Each participant completed the **posttests built-into the eight modules** of the PAHO course and submitted their raw scores.
  - **4) *Satisfaction Post-Course Survey*** – at course completion.

24

Aim 1 – Measure of Leadership Knowledge

25



25

Table 3: Pretest Scores of Three Participants Compared to Their Posttest Scores

Pretest Score	Posttest Score	Percent Improvement
65%	91.25%	26.25%
58%	93.75%	35.75%
64%	95%	31%

26

Aim 2 - Assess and Explore Demographic Data

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Participants by License:

2 = LPN
14 = BSN
11 = ADN
3 = MN

Average age: 47 - spanning from 30 years to 66 years of age

27

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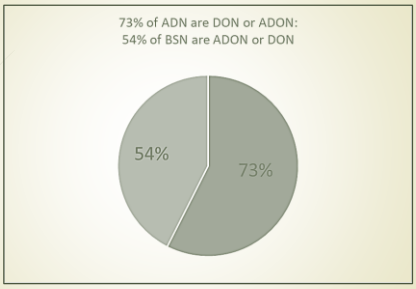

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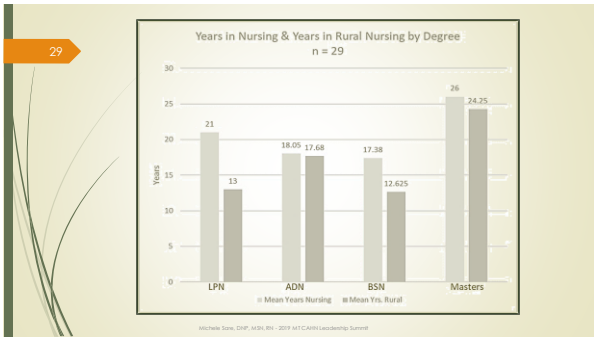
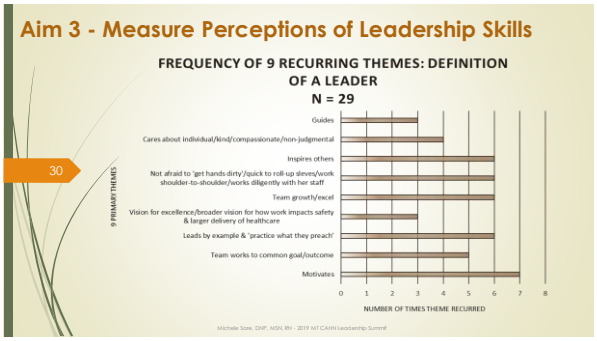
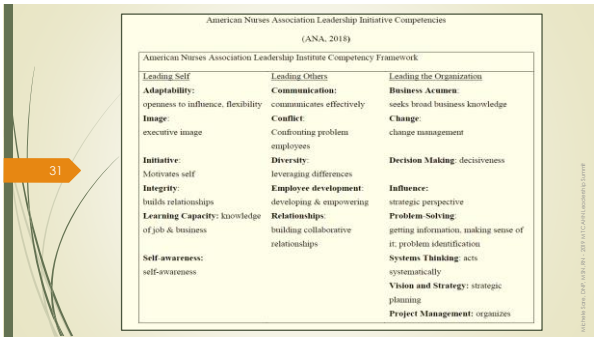

29
Years in Nursing & Years in Rural Nursing by Degree
n = 29
Years
30
25
20
15
10
5
0
21
13
18.05
17.68
17.38
12.625
26
24.25
LPN
ADN
BSN
Masters
Mean Years Nursing
Mean Yrs. Rural

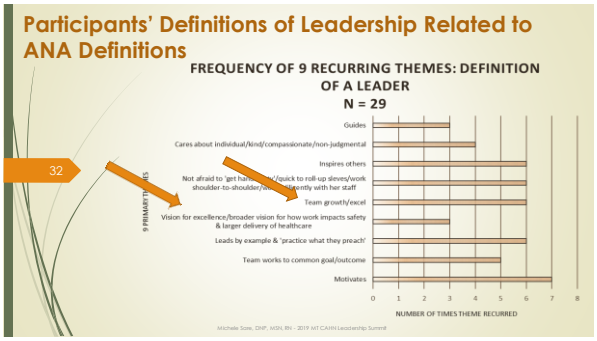
29


Aim 3 - Measure Perceptions of Leadership Skills
FREQUENCY OF 9 RECURRING THEMES: DEFINITION OF A LEADER
N = 29
30
9 PRIMARY THEMES
Guides
Cares about individual/kind/compassionate/non-judgmental
Inspires others
Not afraid to 'get hands dirty'/quick to roll-up sleves/work shoulder-to-shoulder/works diligently with her staff
Team growth/excel
Vision for excellence/broader vision for how work impacts safety & larger delivery of healthcare
Leads by example & 'practice what they preach'
Team works to common goal/outcome
Motivates
0 1 2 3 4 5 6 7 8
NUMBER OF TIMES THEME RECURRED

30


31
American Nurses Association Leadership Initiative Competencies
(ANA, 2018)
American Nurses Association Leadership Institute Competency Framework
Leading Self
Adaptability: openness to influence, flexibility
Image: executive image
Initiative: Motivates self
Integrity: builds relationships
Learning Capacity: knowledge of job & business
Self-awareness: self-awareness
Leading Others
Communication: communicates effectively
Conflict: Confronting problem employees
Diversity: leveraging differences
Employee development: developing & empowering
Relationships: building collaborative relationships
Leading the Organization
Business Acumen: seeks broad business knowledge
Change: change management
Decision Making: decisiveness
Influence: strategic perspective
Problem-Solving: getting information, making sense of it; problem identification
Systems Thinking: acts systematically
Vision and Strategy: strategic planning
Project Management: organizes

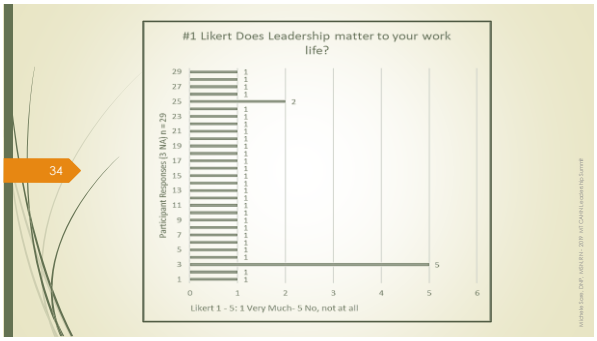
31


Participants' Definitions of Leadership Related to ANA Definitions
FREQUENCY OF 9 RECURRING THEMES: DEFINITION OF A LEADER
N = 29
32
9 PRIMARY THEMES
Guides
Cares about individual/kind/compassionate/non-judgmental
Inspires others
Team growth/excel
Vision for excellence/broader vision for how work impacts safety & larger delivery of healthcare
Leads by example & 'practice what they preach'
Team works to common goal/outcome
Motivates
0 1 2 3 4 5 6 7 8
NUMBER OF TIMES THEME RECURRED

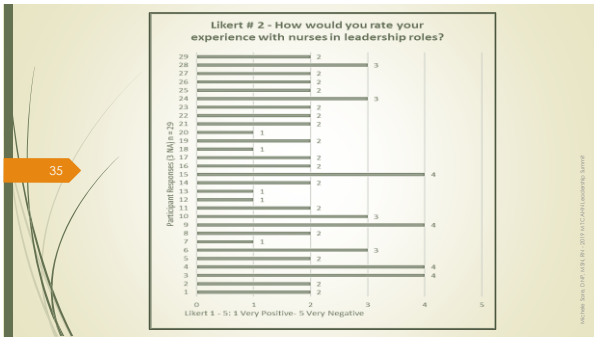
32

→Perception that **experience** is a qualifier for leadership positions.
Leadership positions were not valued as **independent from nursing practice**.
33

33


#1 Likert Does Leadership matter to your work life?
Participant Responses (3 NA) n = 29
Likert 1 - 5: 1 Very Much- 5 No, not at all
34

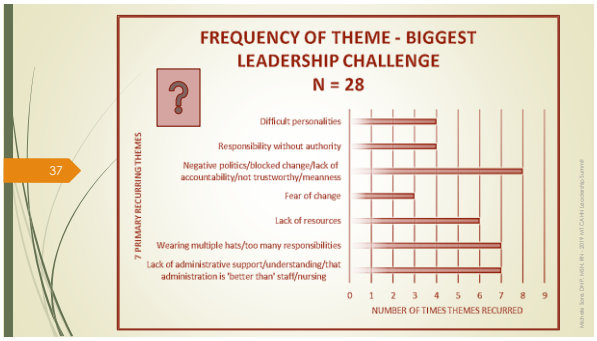
34


Likert # 2 - How would you rate your experience with nurses in leadership roles?
Participant Responses (3 NA) n = 29
Likert 1 - 5: 1 Very Positive- 5 Very Negative
35

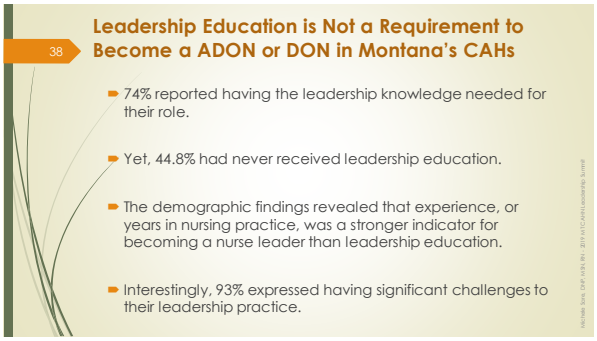
35

#3Likert In your mind, how similar are leadership and management?
Participant Responses (3 NA) n = 29
Likert 1 - 5: 1 Very Similar- 5 Very Different
36

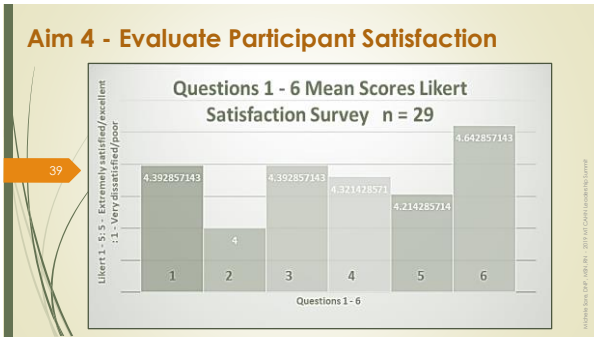
36


FREQUENCY OF THEME - BIGGEST LEADERSHIP CHALLENGE
N = 28
37
7 PRIMARY RECURRING THEMES
Difficult personalities
Responsibility without authority
Negative politics/blocked change/lack of accountability/not trustworthy/meanness
Fear of change
Lack of resources
Wearing multiple hats/too many responsibilities
Lack of administrative support/understanding/that administration is 'better than' staff/nursing
0 1 2 3 4 5 6 7 8 9
NUMBER OF TIMES THEMES RECURRED

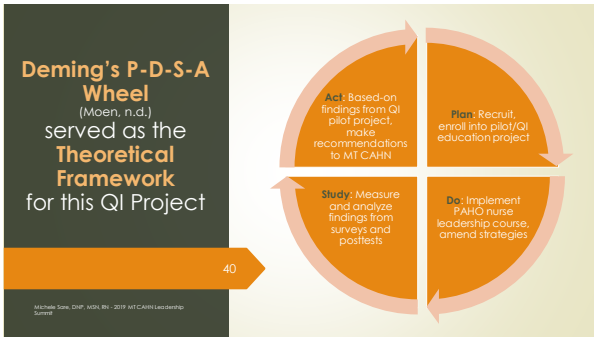
37


38
Leadership Education is Not a Requirement to Become a ADON or DON in Montana's CAHs
74% reported having the leadership knowledge needed for their role.
Yet, 44.8% had never received leadership education.
The demographic findings revealed that experience, or years in nursing practice, was a stronger indicator for becoming a nurse leader than leadership education.
Interestingly, 93% expressed having significant challenges to their leadership practice.

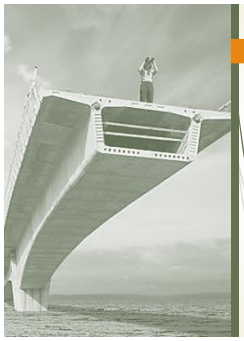
38


Aim 4 - Evaluate Participant Satisfaction
39
Questions 1 - 6 Mean Scores Likert Satisfaction Survey n = 29
Likert 1 - 5: 5 - Extremely satisfied/excellent : 1 - Very dissatisfied/poor
4.392857143
4
4.392857143
4.321428571
4.214285714
4.642857143
1 2 3 4 5 6
Questions 1 - 6

39


Deming's P-D-S-A Wheel
(Moen, n.d.)
served as the Theoretical Framework
for this QI Project
40
Act: Based on findings from QI pilot project, make recommendations to MT CAHN
Plan: Recruit, enroll into pilot/QI education project
Study: Measure and analyze findings from surveys and posttests
Do: Implement PAHO nurse leadership course, amend strategies

40



41

Project Limitations

- Project did not ask if participants had access to other leadership education.
- This project is limited to Montana nurses working in CAHs in management positions.
- As a QI pilot project, there are no comparisons available and there is no evidence-based work with which to compare these findings.
- Unable to compare pre and posttest data.

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Evaluation of Outcomes

- This QI study affirms the findings from the Montana CAHN *2017 Leadership Rapid Response Survey*, December 2017; there is a gap in leadership education for nurse managers working in rural CAHs across Montana.
- Definitions of leadership among this nursing cohort are diverse and unspecified.
- The PAHO course – aligned with the ANA competencies - is a readily available, enduring, no-cost program to help Montana's nurses learn leadership competencies.

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Outcomes Linked to the Purpose & Aims

- Aim 1 – Measure Leadership Knowledge:
  - The data demonstrates that the majority of nurse managers achieved mastery of the PAHO course content.
- Aim 2 – Explore Demographic Data:
  - The demographic findings revealed that experience, or years in nursing practice, was a stronger indicator for becoming a nurse leader than leadership education or level of nursing degree.

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Outcomes - Purpose & Aims…

- Aim 3 – Measure Leadership Perceptions:
  - Participants value leadership, but do not recognize the differences between leadership and management – and none discussed leadership in relationship to quality patient outcomes.
- Aim 4 – Satisfaction with PAHO Course:
  - The mean response for all five questions was 4.327 (5 = extremely satisfied/excellent) – demonstrating a high level of satisfaction with the PAHO course.

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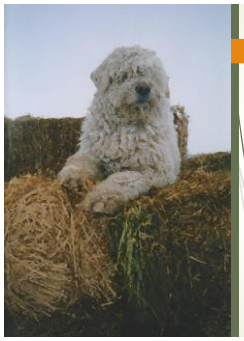

45

Looking to the Future Recommendations

- A future QI study would benefit from improved standardization for how data are reported.
- A computer literacy prerequisite course would enable greater ease of course access and navigation.
- Recommend access to appropriate technology and upgrades for Montana's rural healthcare settings.

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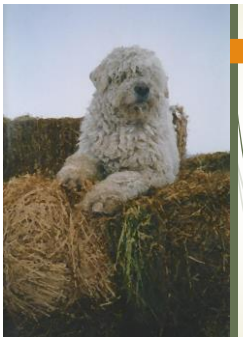

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Recommendations 2

- Recommend a standardized system for security applications for CAHs – perhaps a software program that is cost-appropriate and has 24/7 tech support.
- Recommend the course include a dedicated contact person.
  - These barriers are external to the PAHO program.
  - The program itself is easy to access and complete.

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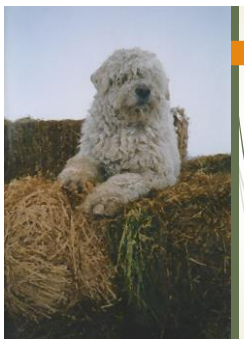

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Recommendations 3

- It will benefit Montana's nurses to learn and adopt a common understanding and language around leadership as we continue to seek better ways to create and measure quality in healthcare.
- The ANA's three domains of leadership competence serve as a credible framework from which Montana nurses can grow their leadership practice.

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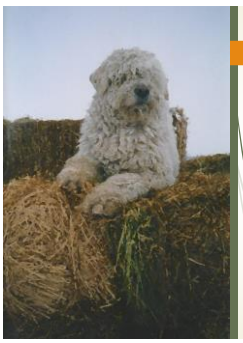

48

Looking to the Future Research

- A future duplicated QI study could include more participants (& include pre and posttests + statistical analysis).
- A future study to assess access to leadership continuing education, why courses are/are not accessed.
- A future study to assess why leadership education is not viewed in the context of a professional development requirement.
- An empirical study that assesses the link between nurse leadership education, leadership competencies, and patient outcomes.

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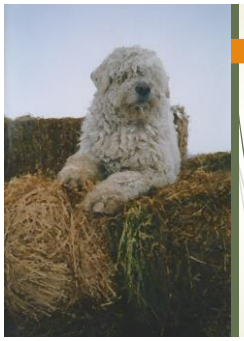

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Research 2

- A QI study to assess why leadership competency is not a criterion for holding leadership positions in Montana's CAHs.
- A study to understand why leadership models & theories (e.g., ANA model) are/are not employed.
- A study to assess what leadership competencies are being taught in schools of nursing and by those providing continuing education.

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Sharing the Work

- *Dissemination Plan*:
  - RNO Journal Submission – Fall 2019
  - MT Leadership Summit June 2019 (abstract submitted/accepted)
  - Montana CAHN Leadership Council – project summary
  - Dr. Cassiani, PAHO – project paper

50

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Thank you…

Questions & Comments please…

51

References

52

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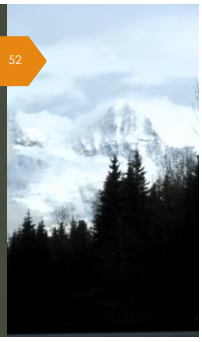

52

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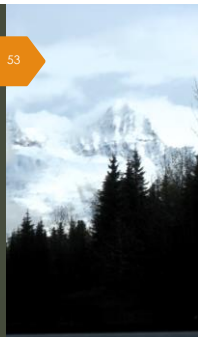

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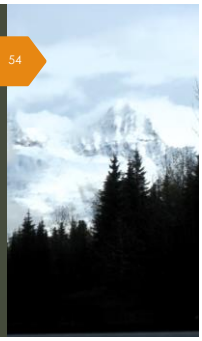

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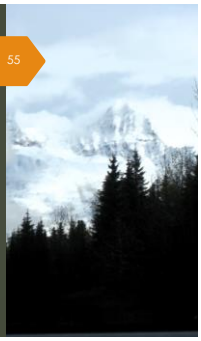

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