

Sigma Theta Tau International 25th International Nursing Research Congress

Barriers and Facilitators to
Utilizing Nursing Research

Jessie M. Colin, PhD, RN, FRE, FAAN
Professor & Director
College of Nursing and Health Sciences
Barry University
Miami Shores, FL

BACKGROUND

- ▶ Use of research results in practice has remained relatively low
- ▶ Nursing research has been shown to improve patient outcomes and decrease length of hospital stays.
- ▶ Revealing the barriers to and facilitators of research use is pertinent to nursing because of the need to provide effective care that is supported by research; and discontinue practices that are ineffective, and not evidence based.
- ▶ Studies conducted by researchers worldwide indicate the main barriers to utilization include; insufficient time to read research, or to implement new ideas.
- ▶ Nurses are reporting inadequate support from management in the organization, as well as inadequate facilities to support implementation of new practice.
- ▶ Nurses internationally appear to be connected by similar experiences and needs.

PURPOSE OF THE STUDY

- ▶ The purpose of this research is to understand and describe the perception of the barriers and facilitators of research utilization among two groups of nurses at a major multisite facility in south Florida

METHOD

- ▶ Descriptive, cross-sectional, correlational survey design

SETTING

- ▶ Two hospitals from the multisite facility were used:
 - Hospital MRH is a 757bed, general medical and surgical facility
 - Hospital MHS is a 384 beds general medical and surgical facility
 - Magnet designated



SAMPLE

- ▶ Hospital MRH
 - 83 participants
- ▶ Hospital MHS
 - 39 participants

INSTRUMENTS

- ▶ Demographic questionnaire
- ▶ BARRIERS and Facilitators to Research Utilization Survey,
 - The tool measures the perceptions of the barriers and facilitators of research utilization
 - 29-item questionnaire with three open-ended questions at the end.
 - Rating of the barrier will be determined by a 5-point Likert scale, with "1" indicating "no extent" to "4" indicating "great extent" and "5" indicating "no opinion." o

SUBSCALES

Consists of 4 subscales:

Adopter (nurse) – research values, skill and awareness
8 items

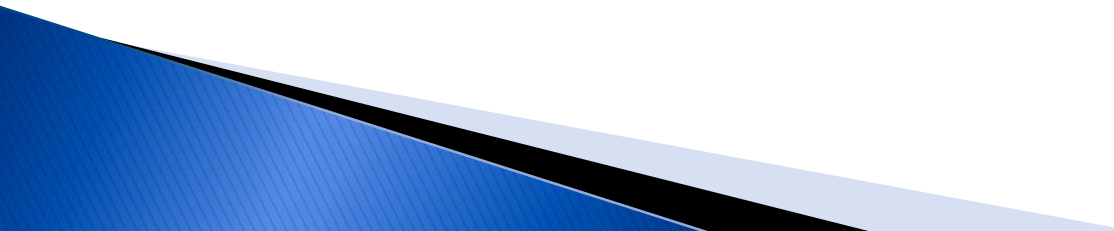
Organization (setting) – setting's barriers and
limitations – 8 items

Innovation (research) – qualities of the research – 6
items

Communication (presentation) – presentation and
accessibility of the research – 6 items



DEMOGRAPHIC

- ▶ Age
 - ▶ Gender
 - ▶ Educational preparation
 - ▶ Years as a nurse
 - ▶ Years the hospital
 - ▶ Level of activity in doing research
- 

DESCRIPTION OF SAMPLE

- ▶ Overall 119 individuals provided responses for the analyses; however not all participants responded to all questions

Category	Age Range			
	Count	Cumulative Count	Percent	Cumulative Percent
22-25	17	17	7.11297	7.1130
26-30	23	40	9.62343	16.7364
31-35	25	65	10.46025	27.1967
36-40	20	85	8.36820	35.5649
41-45	13	98	5.43933	41.0042
46-50	9	107	3.76569	44.7699
51-55	5	112	2.09205	46.8619
56-60	6	118	2.51046	49.3724
61-65	2	120	0.83682	50.2092
Missing	119	239	49.79079	100.0000

Category	Gender			
	Count	Cumulative Count	Percent	Cumulative Percent
Male	26	26	10.87866	10.8787
Female	91	117	38.07531	48.9540
Missing	122	239	51.04603	100.0000

DESCRIPTION OF SAMPLE

Category	Education			
	Count	Cumulative Count	Percent	Cumulative Percent
AS	42	42	17.57322	17.5732
BS	14	56	5.85774	23.4310
BSN	55	111	23.01255	46.4435
MSN	8	119	3.34728	49.7908
PhD	1	120	0.41841	50.2092
Missing	119	239	49.79079	100.0000

Category	Years a Nurse			
	Count	Cumulative Count	Percent	Cumulative Percent
0-3	32	32	13.38912	13.3891
4-6	22	54	9.20502	22.5941
7-10	24	78	10.04184	32.6360
11-15	20	98	8.36820	41.0042
16-20	8	106	3.34728	44.3515
20-25	9	115	3.76569	48.1172
26+	5	120	2.09205	50.2092
Missing	119	239	49.79079	100.0000

DESCRIPTION OF SAMPLE

Category	Years with Memorial Health Care System			
	Count	Cumulative Count	Percent	Cumulative Percent
0-3	53	53	22.17573	22.1757
4-6	27	80	11.29707	33.4728
7-10	18	98	7.53138	41.0042
11-15	13	111	5.43933	46.4435
16-20	3	114	1.25523	47.6987
20-25	5	119	2.09205	49.7908
26+	1	120	0.41841	50.2092
8	1	121	0.41841	50.6276
Missing	118	239	49.37238	100.0000

DESCRIPTION OF SAMPLE

Category	Ever Involved in Research Project			
	Count	Cumulative Count	Percent	Cumulative Percent
Yes	15	15	6.27615	6.2762
No	104	119	43.51464	49.7908
Missing	120	239	50.20921	100.0000

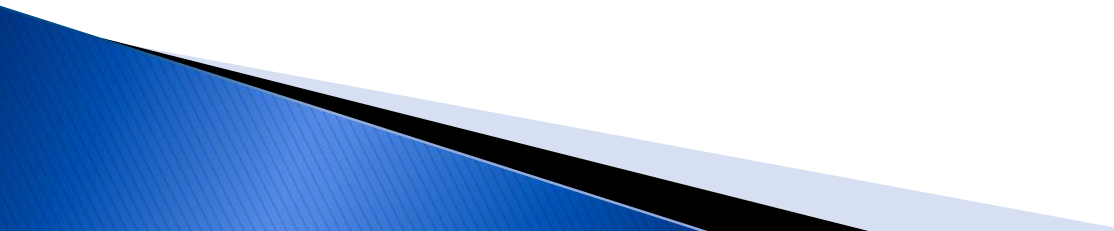
Category	If Research, What Role?			
	Count	Cumulative Count	Percent	Cumulative Percent
Primary Investigator	1	1	0.41841	0.4184
Research Team member	12	13	5.02092	5.4393
Missing	226	239	94.56067	100.0000

Category	Actively Participate in Research			
	Count	Cumulative Count	Percent	Cumulative Percent
1-2hrs	39	39	16.31799	16.3180
3-4hrs	27	66	11.29707	27.6151
5+ hrs	7	73	2.92887	30.5439
Missing	166	239	69.45607	100.0000

INSTRUMENT RELIABILITY

- ▶ Chronbach's (α) alpha for internal consistency:
 - The **α for the 28-item** subscale for the cognitive domain was found to be **.90**;
 - The **α for the 8 item** scale for ADOPTER domain was **.76**
 - The **α for 8-item** subscale for the ORGANIZATION domain was found to be **.73**.
 - The **α for the 6 item** scale for INNOVATION domain was found to be **.71** and
 - The **α for the 8 item** scale for ADOPTER domain was found to be **.71**

HYPOTHESES

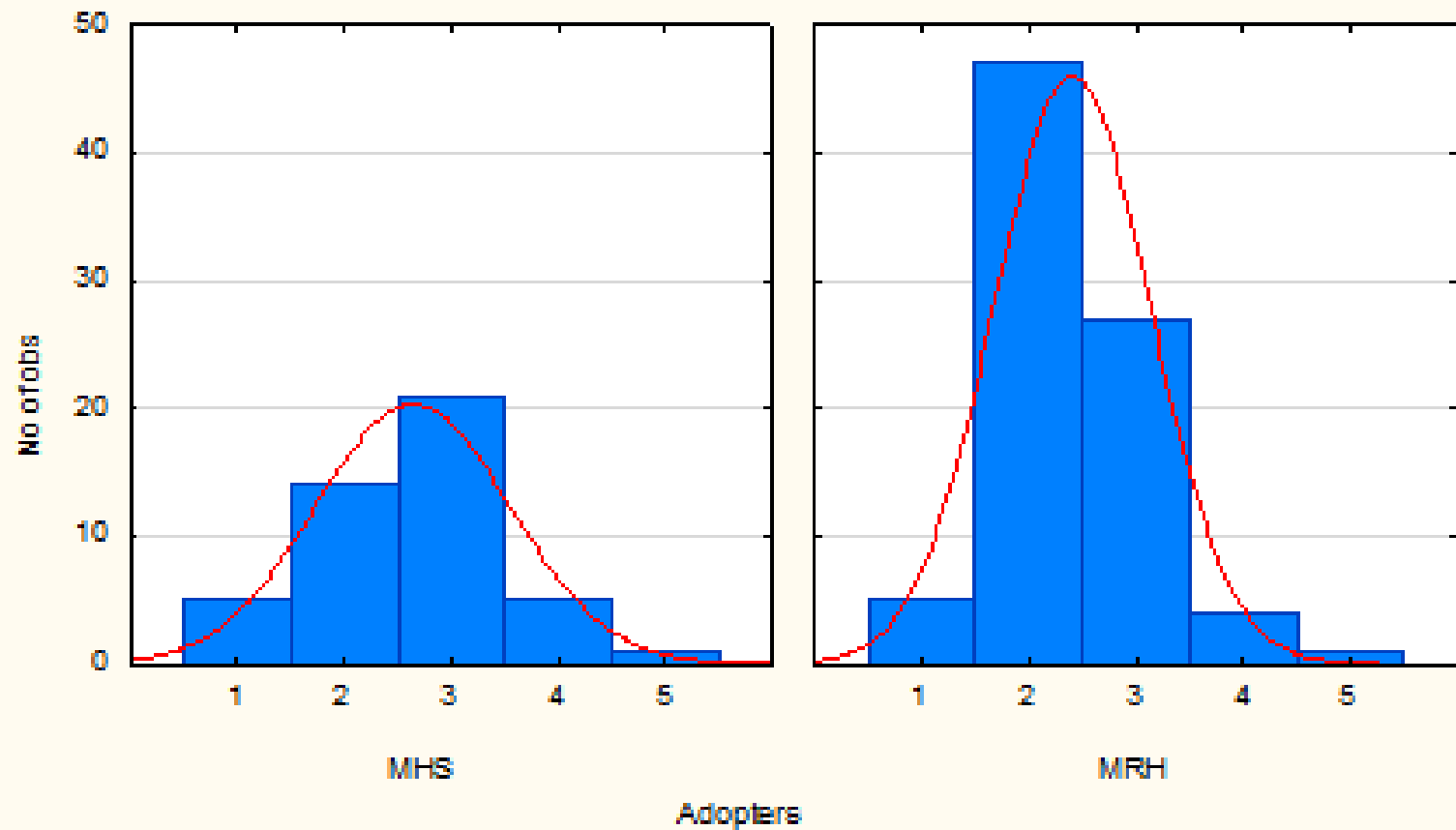
- ▶ H1 There will be a significant difference regarding the perception of the nurses regarding barriers and facilitators to research utilization between magnet designated facility and the non-magnet designated hospital.
 - ▶ Not Significant
 - ▶ H2 The nurses at the magnet designated facility will significantly report less barriers to conducting research
 - Not Significant
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Categorized Histogram

Adopters

Hosploc: MHS Adopters = 46*1'normal(x, 2.6304, 0.9033)

Hosploc: MRH Adopters = 84*1'normal(x, 2.3929, 0.7284)

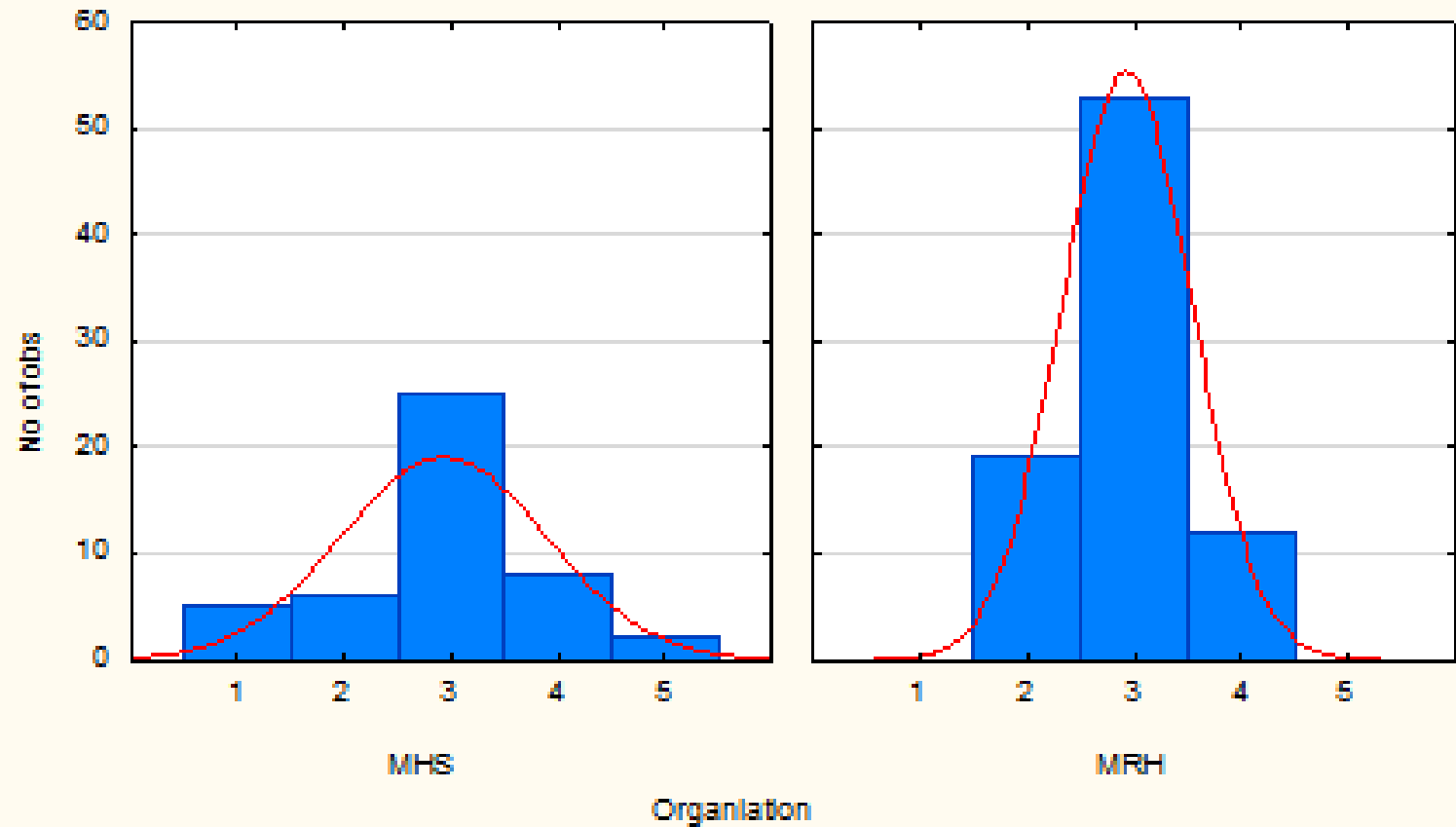


Categorized Histogram

Organization

MHS Organization = 46*1*normal(x, 2.913, 0.9621)

MRH Organization = 84*1*normal(x, 2.9167, 0.6054)

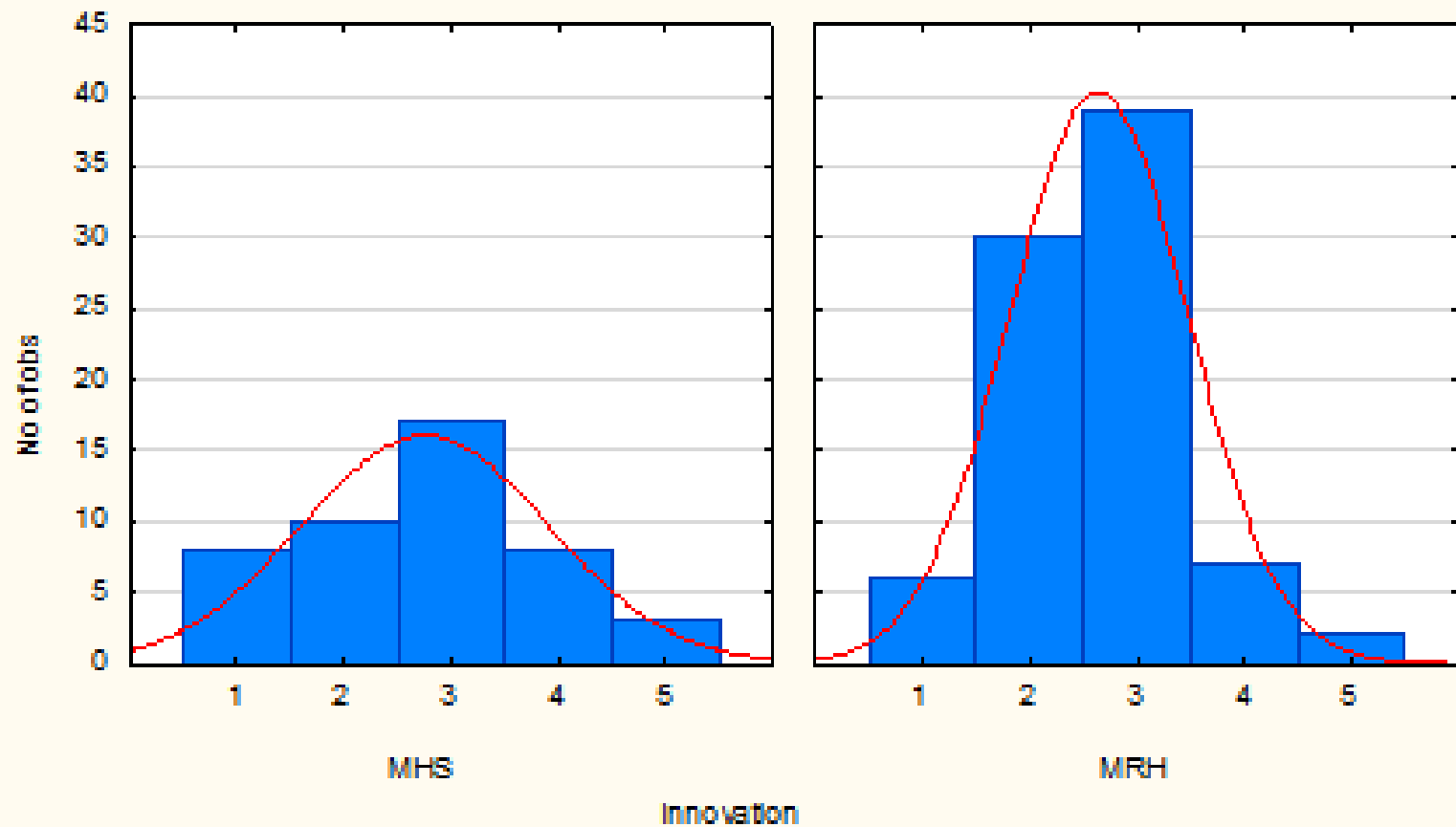


Categorized Histogram

Innovation

MHS Innovation = 46*1 normal(x, 2.7391, 1.1438)

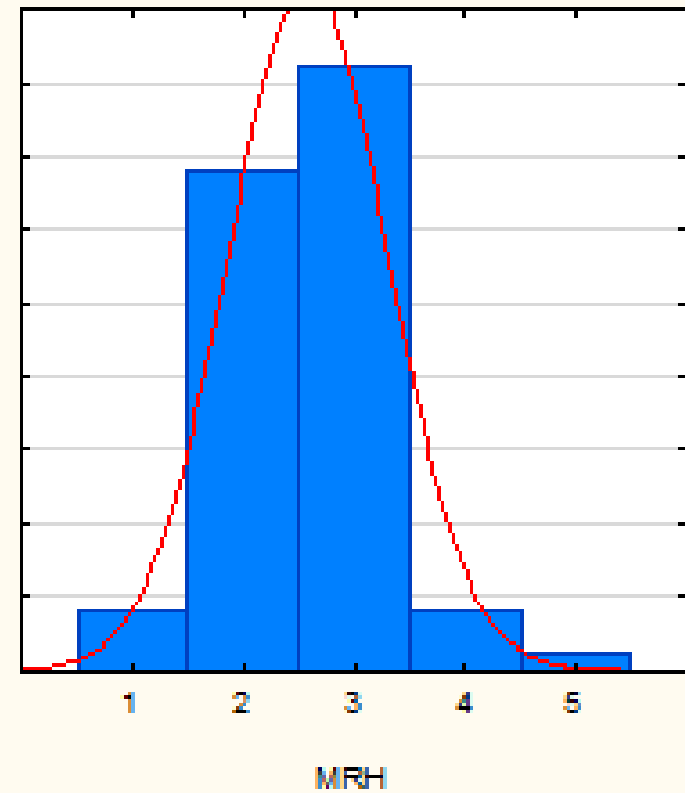
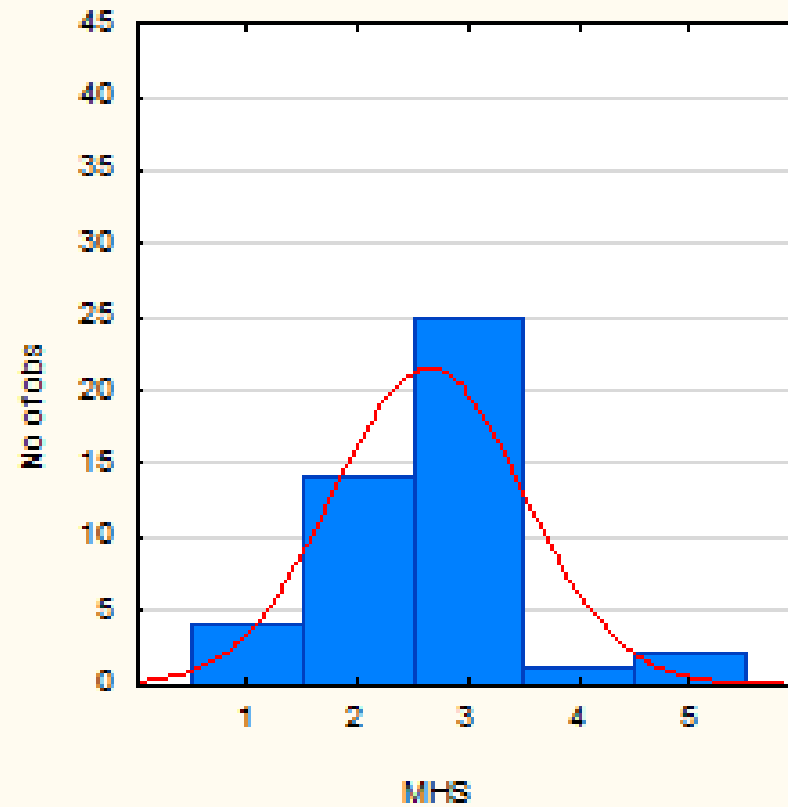
MRH Innovation = 84*1 normal(x, 2.631, 0.8328)



Categorized Histogram Communication

MHS Communication = 46*1*normal(x, 2.6304, 0.8527)

MRH Communication = 84*1*normal(x, 2.5714, 0.7162)



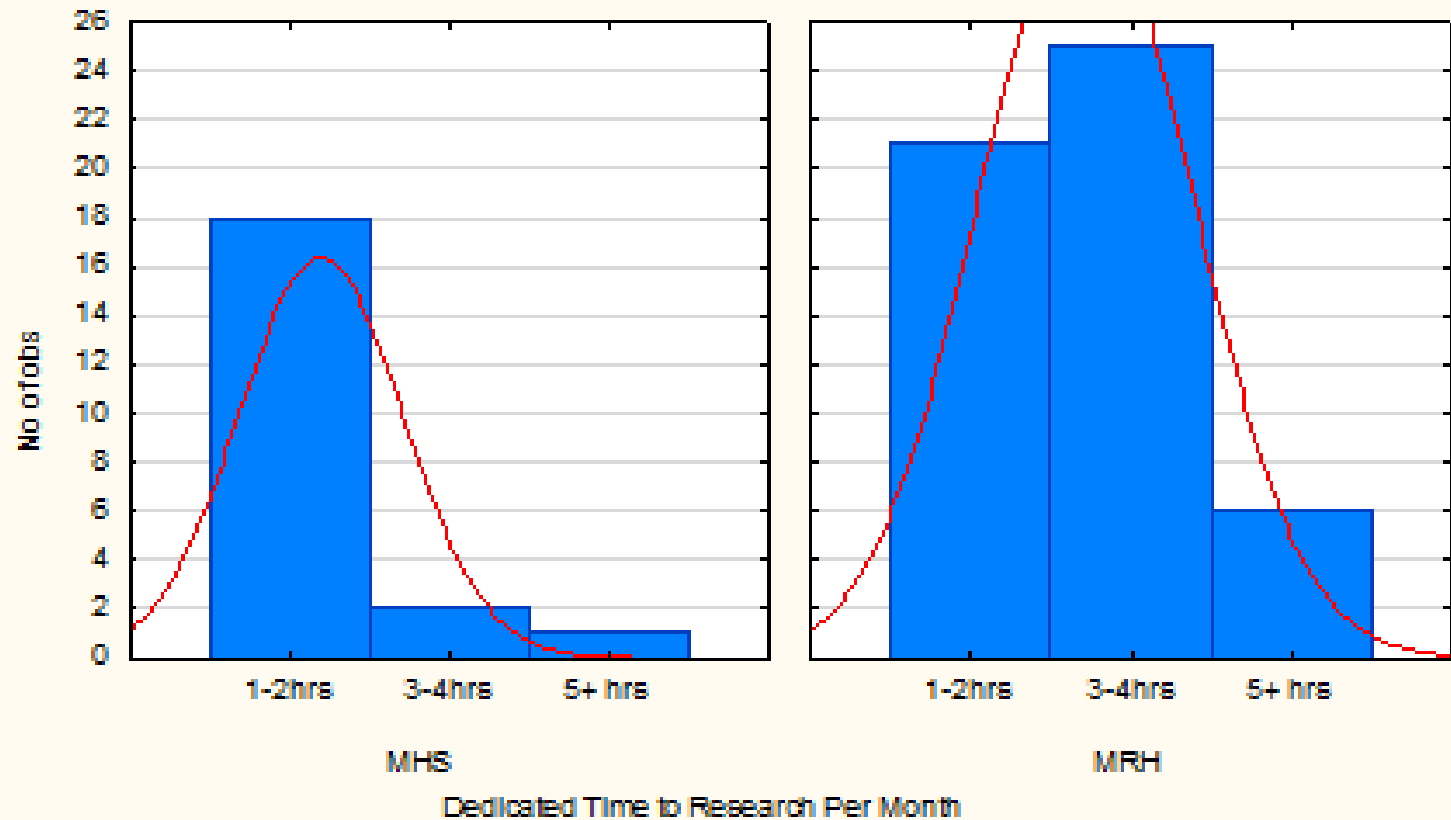
Communication

Categorized Histogram

Dedicated Time to Research Per Month

MHS Dedicated to Research = 21 * $\text{normal}(x, 1.1905, 0.5118)$

MRH Dedicated to Research = 52 * $\text{normal}(x, 1.7115, 0.6668)$



Ranking of Barriers Based on Subscales

Table 1. *Reported Barriers to Research Utilization (Percentage Scoring 3 or 4 on Barriers Items)*

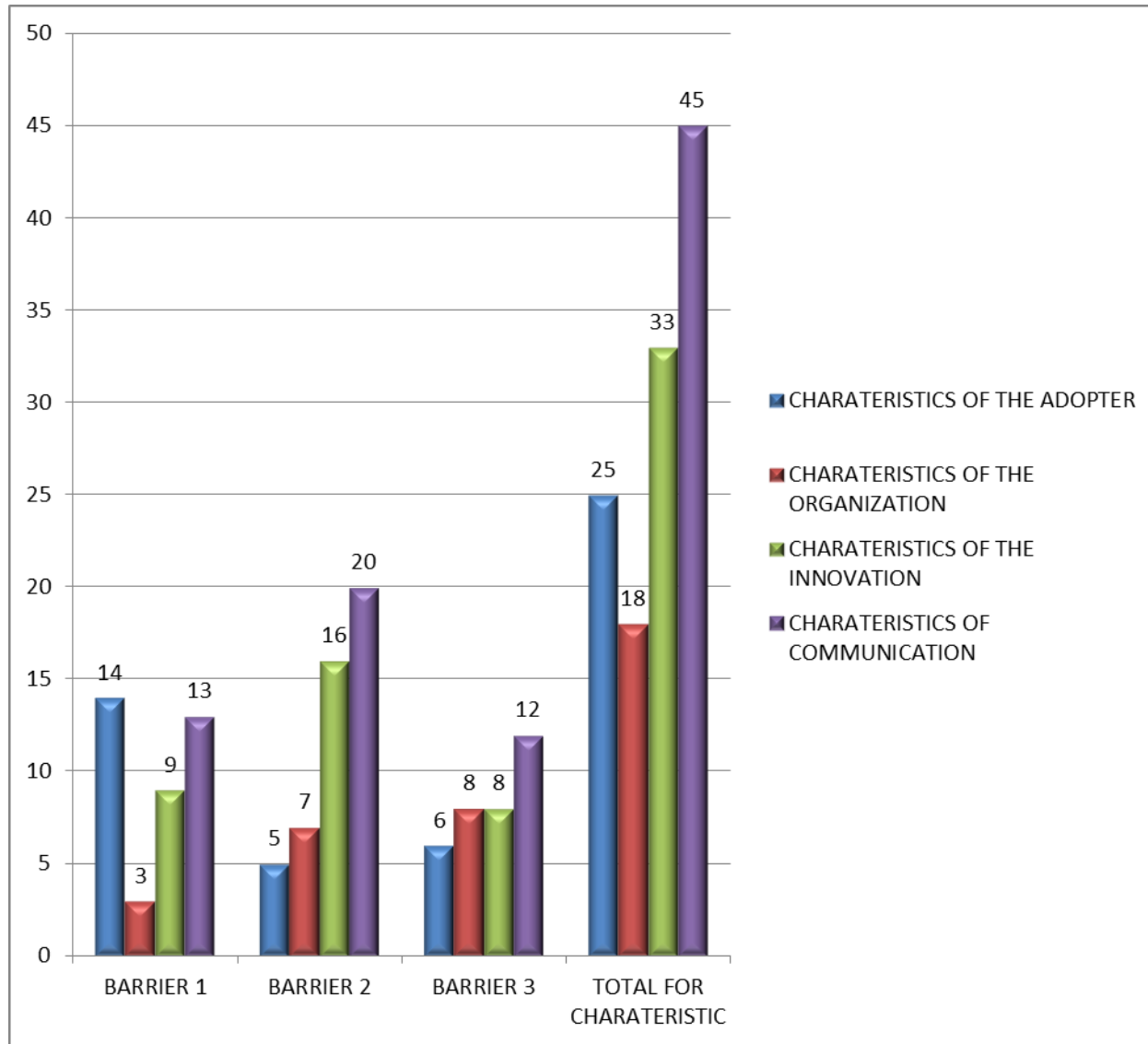
Subscale/Item	Rank Order	Total (N= 131)
Research (mean and SD)		2.120 +/- 0.671
The research has not been replicated (n = 98)	11	52.0
The nurse is uncertain whether to believe the results of the research (n = 122)	18	39.3
Research reports/articles are not published fast enough (n = 110)	19	39.1
The research has methodological inadequacies (n = 97)	23	30.9
The literature reports conflicting results (n = 112)	24	29.5
The conclusions drawn from the research are not justified (n = 104)	28	16.3
Presentation (mean and SD)		2.342 +/- 0.632
The relevant literature is not compiled in one place (n = 109)	8	54.1
Statistical analyses are not understandable (n = 119)	10	52.1
Research reports/articles are not readily available (n = 121)	15	43.0
The research is not reported clearly and readably (n = 119)	16	42.9
Implications for practice are not made clear (n = 123)	17 (tie)	39.8
The research is not relevant to the nurse's practice (n = 124)	26	26.6
No Subscale (mean and SD)		
The amount of research information is overwhelming (n = 121)	5	62.0

Ranking of Barriers Based on Subscales

Table 1. *Reported Barriers to Research Utilization (Percentage Scoring 3 or 4 on Barriers Items)*

Subscale/Item	Rank Order	Total (N= 131)
Nurse (mean and SD)		2.209 +/- 0.634
The nurse does not feel capable of evaluating the quality of the research (n = 116)	6	56.0
The nurse is unaware of the research (n = 127)	9	52.8
The nurse is unwilling to change/try new ideas (n = 121)	13	44.6
The nurse feels the benefits of changing practice will be minimal (n = 123)	20	36.6
The nurse sees little benefit for self (n = 125)	21	32.8
The nurse is isolated from knowledgeable colleagues with whom to discuss the research (n = 123)	22	31.7
There is not a documented need to change practice (n = 118)	25	28.8
The nurse does not see the value of research for practice (n = 127)	27	22
Setting (mean and SD)		2.655 +/- 0.565
The nurse does not feel she/he has enough authority to change patient care procedures (n = 124)	1	71.0
The nurse does not have time to read research (n = 126)	2	67.5
There is insufficient time on the job to implement new ideas (n = 122)	3	64.8
Physicians will not cooperate with implementation (n = 120)	4	62.5
The facilities are inadequate (n = 119)	7	54.6
Other staff are not supportive of implementation (n = 116)	12	47.4
Administration will not allow implementation (n = 115)	14	43.5
The nurse feels results are not generalizable to own setting (n = 118)	17 (tie)	39.8

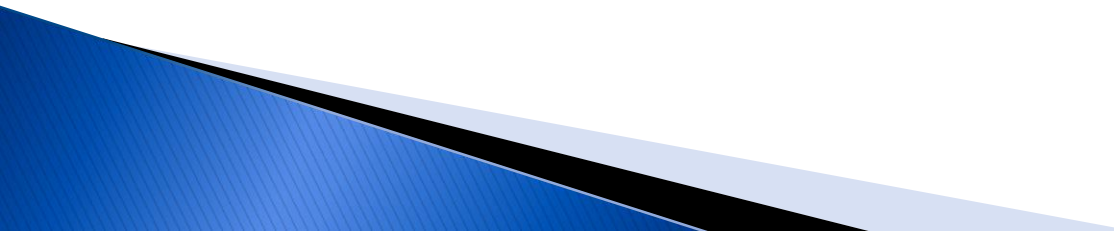
Items	Rank 1	Rank 2	Rank 3	Total
1. Doesn't see value of research	5			5
2. Little benefit for self		2	1	3
3. Unwilling to change/try new things		1	1	2
4. Not a documented need to change practice	3	1		4
5. The benefits of changing practice will be minimal	2	1	1	4
6. Doesn't feel capable of evaluating the quality of research			2	2
7. Isolated from knowledgeable colleagues with whom to discuss research	4		1	5
CHARACTERISTICS OF THE ADOPTER	14	5	6	25
9. Administration will not allow implementation	1	2	1	4
10. Physicians won't cooperate with implementation		1	1	2
12. Other staff are not supportive of implementation		1	2	3
13. The facilities are inadequate for implementation	1	1	2	4
14. Does not have enough authority to change patient care procedures		2	1	3
16. Results are not generalizable to own setting	1		1	2
CHARACTERISTICS OF THE ORGANIZATION	3	7	8	18
17. Research has methodological inadequacies		1	1	2
18. The conclusions drawn from the research are not justified	2	8	3	13
19. The research has not been replicated	5	2	3	10
21. Uncertain whether to believe the results of the research	1		1	2
22. Research reports/articles are not published fast enough	1	5		6
CHARACTERISTICS OF THE INNOVATION	9	16	8	33
23. Implications for practice are not made clear	1	2		3
24. Research reports/articles are not readily available	1	2	3	6
25. The research is not reported clearly and readably.	1	2	4	7
26. Statistical analyses are not understandable	3	6	3	12
27. Relevant literature is not compiled in one place	5	5	1	11
28. Research is not relevant to nurse's practice	2	3	1	6
CHARACTERISTICS OF COMMUNICATION	13	20	12	45



TOP SIGNIFICANT PERCEPTION OF BARRIERS TO RESEARCH UTILIZATION

- ▶ The nurse does not feel she has enough authority to change patient care procedure
- ▶ The nurse does not have time to read research
- ▶ There is insufficient time on the job to implement new ideas
- ▶ Physicians will not cooperate with implementation
- ▶ The amount of research information is overwhelming
- ▶ The nurse does not feel capable of evaluating the quality of the research
- ▶ The facilities are inadequate

SIGNIFICANT PERCEPTION OF FACILITATORS CONDUCTING RESEARCH

- ▶ Organizational support
 - Time
 - Access to resources
 - Having a nurse researcher on site
 - Support research education
 - ▶ Communication of research successes
- 

REFERENCES

- ▶ Bostrom AM, Kajermo, K, Nordstrom, G, & Wallin, L.(2008). Barriers to research utilization and research use among registered nurses working in the care of older people: Does the BARRIERS Scale discriminate between research users and non-research users on perception of barriers. *Implementation Science*, (3)24, 1–10. doi: 10.1186/1748-5908-3-24
- ▶ Funk, S, Champagne, M, Wiese, R, & Tornquist, E. (1991). Barriers to research utilization scale. *Applied Nursing Research*, 4(1): 39–45
- ▶ Kajermo, K, Nordstrom, G, Krusebrant, A & Bjorvell, H. (1998). Barriers to and facilitators of research utilization, as perceived by a group of registered nurses in Sweden. *Journal of Advanced Nursing*, 27, 798–807.