

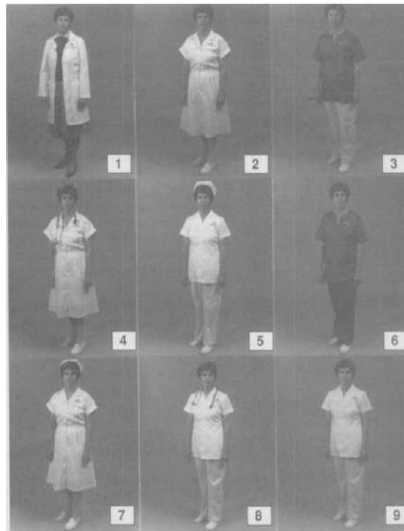
Evaluation of Standardized Color-Coded Nurse Uniforms on Patients, Family, and Staff Perceptions: A Patient and Family Care-Centered Initiative

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Back Ground

- ❖ Patients' and families' perception of competence and professionalism of nurses are often based on first impressions (Mangum, Garrison, Lind, & Hilton, 1997)
- ❖ Non-verbal visual cues such as appearance and manner of dress may influence the nurse-patient relationship, affecting the patients' opinion of nurses' and their ability (Hinshaw & Atwood, 1982)
- ❖ Patients and families have expressed confusion related to identifying various healthcare professionals; unable to differentiate a nurse from other hospital workers (Shorupski & Rea, 2006)
- ❖ Recently, standardization of dress based on role and discipline has resulted in improved patient satisfaction in acute care hospital settings (Haase-Herrick, 2005)
- ❖ Majority of previous research focused on photography of nurses in various uniforms or with various appearances
- ❖ Research was lacking that focused on uniform changes in real life health care settings.



Purpose

- ❖ To determine the effect of standardized color-coded nurse uniforms on patient, family, and staff perceptions
- ❖ Specific aims:
 - Compare patient / family perception of nurses' image and professionalism before and after implementing standardized uniforms
 - Determine patients' / families' ability to identify nurses before and after implementing standardized uniforms.
 - Determine what manner of dress patients / families prefer
 - Determine staff perceptions / satisfaction with standardized uniforms

Setting

- ❖ Denver Health Medical Center
- ❖ 477 – bed urban public safety net hospital in the Rocky Mountain Region
- ❖ Largest provider for indigent care in the Denver Metro area



Method / Design

- ❖ Pre – post test survey design
- ❖ COMIRB approval #09-0431

Patient / Family Survey

- ❖ Collected before & after implementation of standardized uniforms
 - Medical - Surgical Admit / Discharge Unit (MS ADU)
 - Mom / Baby Unit
 - Inpatient Behavioral Health Unit
- ❖ Inclusion criteria:
 - Men or women age 18 and over
 - Admission to one of the study units for a minimum of 24 hours, or a family member of an admitted patient
- ❖ Patient / Family tool included:
 - Basic demographic information
 - Perception of nurses' professionalism and image
 - Ability to identify nurses
 - Preferences regarding nurses' dress and appearance
 - Comments section
- ❖ Survey tool reference: Windle, L; Halbert, K; Dumont, C; Tagnes, K; Johnson, K. (2008)

Staff Satisfaction Survey

- ❖ Inclusion criteria:
 - Nurses, physicians, ancillary staff, and administrative / clerical personnel
- ❖ Data was collected after implementation of standardized color-coded uniforms (scrubs)
- ❖ Web-based electronic survey
- ❖ Included questions regarding:
 - Appearance
 - Professionalism

- Ability to identify the RN
- Overall satisfaction with the uniforms
- Comments Section

Results

Patient / Family Survey Results (N=244)

- ❖ Statistically significant difference ($p < 0.05$) for the following:
 - Perception of professionalism of the RN (75% to 86% positive responses)
 - Ease in identifying the RN (58% to 77% positive responses)
- ❖ Approached statistical significance ($p = 0.059$):
 - Ability to identify the RN caring for the patient during this hospital stay (63% to 76% positive responses)
- ❖ Statistical difference in an RN's perceived ability increased from 78% to 84%
- ❖ No difference was found in the perception of the RNs' appearing warm and caring or skilled
- ❖ Preferred manner of dress, 18% thought nurses should wear white uniforms while 34% believed they should be allowed to wear any color uniform
- ❖ The majority of patients / families (70%) believed nurses should have clean, short fingernails
- ❖ 50% thought they could best identify an RN by having a large print name tag stating "RN"

Patient / Family Demographics	Pre-intervention	Post-intervention
Unit participation	N=96	N=148
Behavioral Health	14.6%	16.2%
Med / Surg ADU	45.8%	67.6%
Mom / Baby	39.6%	16.2%
Participant breakdown		
Patient	91.3%	95.0%
Family Member	8.7%	5.0%
Gender		
Male	37.0%	55.3%
Female	63.0%	44.7%
Patient / Family Age Range		
18-25	21.5%	10.1%
26-37	28.0%	24.6%
38-48	18.3%	23.9%
49-59	20.4%	26.8%
60+	11.8%	14.5%

Patient / Family Demographics	Pre-intervention	Post-intervention
Ethnicity		
Hispanic or Latino	58.0%	54.3%
Not Hispanic or Latino	42.0%	45.7%
Race		
American Indian / Alaska Native	9.4%	6.0%
Asian	0.0%	2.0%
African American	28.1%	26.0%
White	62.5%	66.0%
First stay in This Hospital		
Yes	44.1%	35.9%
No	55.9%	64.1%
Total # of Units Admitted to During this Hospital Stay		
One	30.2%	34.7%
Two	30.2%	30.6%
Three	22.1%	15.7%
Four	8.1%	5.0%
Greater than 4	9.3%	14.0%

Staff Survey Results (N=771)

Results revealed the following positive responses:

- 81% positive responses regarding the ease in identifying RN
- 71% positive responses related to the RN appearing skilled
- 70% positive responses regarding the RN appearing professional
- 55% positive responses related to the RN appearing warm and caring
- 54% positive responses regarding overall satisfaction with the color-coded uniforms
- While staff comments reflected positively on color-coded uniforms, many staff focused on implementation issues such as vendor selection, quality of uniforms, color issues, individuality, and the difference between perceived and actual clinical skill

Staff Demographics	
Gender	
Male	24.3%
Female	75.7%
Age Range	
18-25	6.1%
26-37	40.5%
38-48	30.2%
49-59	17.0%
60+	6.1%
Job Title	
Registered Nurse	49.4%
CNA/HCT	10.4%
MD	14.1%
RT / PT / OT	6.0%
Clerical / Admin	3.0%
Lab	5.6%
Pharmacy	7.4%
Other	3.9%

Staff Demographics	
Length of Time at DH	
< 1 Year	13.2%
1-5 Years	48.4%
6-10 Years	21.9%
11-15 Years	8.3%
16-20 Years	4.7%
21+ Years	4.7%
Length of Time in Current Position	
< 1 Year	13.2%
1-5 Years	47.4%
6-10 Years	18.2%
11-15 Years	8.8%
16-20 Years	5.2%
21+ Years	7.2%

Implications for Practice

Patients and families have expressed confusion related to identifying various healthcare professionals; unable to differentiate a nurse from other hospital staff. While previous research was based on photographs of nurses in various uniform types this study focused on uniforms in real life healthcare settings. Nurses' dress and appearance significantly affected patient and family perceptions and could potentially affect their response and satisfaction with care as well. In addition, staff engagement and participation in decision-making are vital to successful implementation of organizational change such as color-coded uniforms.