An Exploration of Resiliency in a Rural, Magnet Designated Hospital

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Introduction to the Facility

- Schneck Medical Center is a Not-for-profit, Acute Care Hospital located in Seymour, Indiana.
- 4-time Magnet® Designated (2006, 2011, 2016, 2021)
- Malcom Baldridge National Quality Award 2011
- 2020 Top 20 Rural Hospitals in America
- 5-Star CMS Quality Rating

Introduction to the Facility

- Facility - Main campus with several outlying physician practices serving - Jackson, Jennings, Washington, and Scott Counties
- Number of Licensed Beds - 166
- Number of Staffed Beds - 93
- Number of Outpatient visits each year - 213,000
- Number of Surgical Cases Each Year - 9,500
- Average Daily Inpatient Census - 28
- Number of employees - 1,000+
- Number of Licensed Nursing Staff
  - RN's - 265
  - LPN's - 13

Schneck Medical Center

Problem

- ▶ Multiple challenges in the US to maintain an adequate supply of nurses
- ▶ A myriad of factors contributing to the problem
  - ▶ Aging Population
  - ▶ Aging Workforce
  - ▶ Limited enrollments in nursing programs due to faculty shortage
  - ▶ Nurses leaving the profession due to high stress levels and staffing shortages (AACN, 2020)

Problem

- ▶ A crucial factor leading to nurses leaving the profession is resiliency

- ▶ A global concept that can be defined as the ability to respond to stressful situations and challenges in a way that results in effective functioning and the protection of physical and mental health (Dossett, Needles, Nittoli, & Mehta, 2021).

- ▶ As a nursing specific concept, resiliency can be defined as a dynamic process that develops over time and allows nurses to perform nursing duties despite adversity (Ang, Uthaman, Ayre, Lim, & Lopez, 2019).

Purpose and Aim

▶ Purpose: To examine the current state of resilience, mental health, and physical health of nurses at a rural-community, Magnet Designated acute care hospital

▶ Aim: To identify specific opportunities to intervene and address areas of resilience that may be impacting nurses' overall health and potentially contributing to their leaving the workforce.

Research Questions

1. What degree of resiliency is present in the registered nurse workforce in the Magnet Designated hospital participating in the study?

2. What is the perceived mental and physical health status of registered nurses working in the hospital?

Methods

▶ Institutional Review Board approval was obtained prior to proceeding with the study

▶ A convenience sample of 279 Registered Nurses employed by a single Magnet designated hospital was invited to participate in an online survey

▶ Each nurse received a URL to a Qualtrics survey that also included information concerning the purpose of the study, risks and benefits, and that participation was voluntary.

▶ Participants were asked to complete the entire survey at one time

Methods

- Participants completed a demographic questionnaire that included age, race, gender, level of education, and specific questions about their work environment
- Resiliency was measured by the Connor Davidson Resilience Scale (CD-RISC)
  - 25 items, and each item has 4-point Likert-type response options ranging from 0=not true at all to 4=true nearly all the time
  - Degree of resilience was reflected by the sum score of the 25 items, with higher scores reflecting greater resilience
  - Internal consistency estimated using Cronbach's a was .89. Details on its reliability and validity have been documented in previous studies (Conner & Davidson, 2003; Mealer et al., 2016).

Methods

- Self-perceived health status was assessed using the PROMIS Global Health short form v1.1 (PROMIS v1.1). (Rothrock et al., 2010)
- a 10-item publicly available instrument that measures both Global Physical Health and Global Mental Health components
- Global Physical Health and Global Mental Health scores are generated by summing responses to two groups of corresponding items, respectively.
- Higher scores represent a better perceived-health status in Global Physical or Mental Health domain
- Internal consistency reliability coefficients of .81 and .86 for Global Physical Health and Global Mental Health measurements, respectively (Hayes et al., 2009)

Analysis

- Descriptive summary statistics using SPSS V24.

- Results were compared to the US general population mean scores for resiliency and physical and mental health.

Results (Demographic Data)

	n	%
Age Group		
<= 25 years old	6	7.89
26-35 years old	18	23.68
36-45 years old	19	25
46-55 years old	13	17.11
Older than 55	**20**	**26.32**
Gender		
Female	75	94.94
Male	5	5.06
Race/Ethnicity		
Non-Hispanic White	79	100
Other or Multiple Race	0	0

Results (Highest Nursing Degree)

	n	%
Highest Nursing Degree		
RN Diploma	0	0
ADN	7	8.86
BSN	**57**	**72.15**
MSN or Higher	14	17.72
Doctorate	1	1.27

Worked Hours Per Week Overtime and Work Shift

	n	%
Worked Hours Per Week		
0-24	9	11.39
25-36	25	31.65
37-40	43	54.43
40+	2	2.53
PRN	0	0
Overtime Hours Worked Per Week		
None	32	44.44
0.5-4	25	34.72
4.5-8	9	12.5
More than 8	6	8.33
PRN, Salaried or Varied	0	0
Work Shift		
Days	64	81.01
Evenings	1	1.27
Nights	13	16.46
Rotates between days, nights, or evenings	1	1.27

Results: Experience in Department, Activity Involved In, Area of Work, Days Missed in Last 3 Months, Ever Thinks of Quitting Job

	n	%
Experience in Current Department		
Up to 2 years	18	23.08
2-5 years	18	23.08
5-10 years	14	17.95
10+ years	28	35.9
Most Time Involved in		
Direct Patient/Population Care	61	77.22
Administration/Management	15	18.99
Education/Professional Development	3	3.8
Area of Work		
Acute Care	52	68.42
Ambulatory/primary care	21	27.63
Education	2	2.63
Days missed work in past 3 months		
None	58	73.42
1 day or shift	11	13.92
2-3 days or shifts	8	10.13
More than 3 days or shifts	2	2.54
Ever Think of Quitting Job		
Never	33	41.77
Sometimes	39	49.37
Usually	6	7.59
Always	1	1.27

Mean Resiliency Scores for the Study Group
(U.S. General Population mean score 80.9)*Resiliency score (Mean 82.01, Median 85)
* Higher score reflecting greater resilience

Item	n (%)
Above US general mean	54 (68.35)
Below US general mean	25 (31.65)
Quartile Distribution	
Best quartile (76-100 points)	56 (72.73)
3rd quartile (51-75 points)	20 (25.97)
2nd quartile (26-50 points)	1 (1.30)
Worst quartile (0-25 points)	0

Physical and Mental Health Resiliency Scores
(US Population Mean Score Physical Health=15 Mental Health=15)

Item	Physical Health Mean=15.67, median=16 n(%)	Mental Health Mean=14.72, median=14.5 n(%)
Above US general mean	46 (58.97)	31 (39.74)
Below US general mean	32 (41.03)	47 (60.26)
Quartile Distribution		
Best quartile (16-20 points)	46 (58.97)	31 (39.74)
3rd quartile (11-15 points)	31 (39.74)	41 (52.56)
2nd quartile (6-10 points)	1 (1.28)	5 (6.41)
Worst quartile (0-5 points)	0	1 (1.28)

Discussion

- Important revelations about the demographic characteristics, resiliency, and mental and physical health of nurses in one rural, Magnet designated institution.

- Findings of this study may be of help to inform organizational policies and practices aimed at improving the resiliency of nurses and retaining the nursing workforce

- This is an accurate reflection of the overall demographics of the population represented in the rural area where the organization is located.

- The nurses participating in this study reported higher resiliency scores than the U.S. average population.

- The higher than average mean resiliency scores are likely attributable to the organization's long-term Magnet Designated status (since 2006).

Discussion

- Nurses in this population reported higher levels of physical health than the U.S. general population.

- Little is currently known regarding the impact of resiliency specific to reported health outcomes of nurses.

- Silverman et al. (2015) suggested that the mechanism responsible for this phenomenon includes improved ability to cope with challenges related to physical health concerns and a positive outlook on future health outcomes.

- The final study endpoint examined was that of nurses' reported mental health. The results reported suggest that nurses in this study sample experienced poorer mental health (mean score 14.72)

- This study has significant implications in that it specifically examines resiliency in a rural three-time Magnet designated-hospital.

- The findings stemming from this study are beneficial to understand how resilient the nurses in this organization are and that physical health does not necessarily equate to mental health.

Further Research

- Current study was conducted prior to the COVID-19 pandemic.
- In light of this, it would be appropriate to repeat the study to examine resiliency, physical health, and mental health after the pandemic.
- There is a substantial likelihood that these scores may vary from the original study.
- Mental health scores with the present study were below the national average.
- It will be beneficial to examine these to determine if tailored interventions will be needed to address either.
- It will also be important to repeat this study with a larger population to more thoroughly examine any potential relationships among these variables.

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