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# The impact of spiritual care delivered by nurses on patients' comfort: A propensity score matched cohort utilizing electronic health record data

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#### Highlights

- This study advances defining and practicing spiritual care in medical contexts.
- Spiritual care was associated with better psychological comfort.
- <u>Nursing care plan</u> data is valuable for assessing care's impact on patient outcomes.

#### Abstract

# Background

Spiritual care has been associated with better health outcomes. Despite increasing evidence of the benefits of spiritual care for older patients coping with illness and aggressive treatment, the role of spirituality is not well understood and implemented. Nurses, as frontline holistic healthcare providers, are in a position to address patients' spiritual needs and support them in finding meaning in life. This study aimed to identify spiritual care by analyzing nursing data and to compare the psychological and physical comfort between older chronically ill patients who received spiritual care versus those who did not receive spiritual care.

# Material and methods

A propensity score matched cohort utilizing nursing care plan data was used to construct balanced groups based on patient characteristics at admission. 45 older patients (≥65 years) with chronic illnesses received spiritual care with measured psychological or physical comfort and 90 matched controls. To ensure the robustness of our results, two sensitivity analyses were performed. Group comparisons were performed to assess the average treatment effect of spiritual care on psychological and physical comfort outcomes.

#### Results

The mean psychological comfort was 4.3 (SD=0.5) for spiritual care receivers and 3.9 (SD=0.9) for non-receivers. Regression analysis showed that spiritual care was associated with better psychological comfort (estimate=0.479, std. error=0.225, p=0.041). While its effect on physical comfort was not statistically significant (estimate=-0.265, std. error=0.234, p=0.261). This study provides suggestive evidence of the positive impact of nurses' spiritual care in improving psychological comfort for older patients with chronic illnesses.

#### Conclusion

Using interoperable nursing data, our findings suggest that spiritual care improves psychological comfort in older patients facing illness. This finding suggests that nurses may integrate spiritual care into their usual care to support patients experiencing distress.

# Introduction

Spirituality is how individuals connect and experience meaning in life, purpose, and transcendence [1], [2]. During hospitalization, particularly when dealing with severe illness,

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aggressive treatment, or disability, individuals often confront hopelessness. These challenging situations for patients and their families can inspire a sense of spirituality, emphasizing the true intent of spiritual care.

Spiritual care is recognizing and paying attention to the spiritual dimension within health care [3]. Even non-religious may have spiritual needs [4]. Over 90% of cancer and chronically ill patients indicate at least one spiritual distress [5], experiencing spiritual pain [6], [7] and emotional demands [8], [9], [10].

As frontline holistic healthcare providers who spend the most time with patients [11], nurses are in a position to provide spiritual care as part of their work. Attention to spirituality is a requisite of person-centered care, and nursing organizations such as the American Holistic Nurses Association [12] and the American Nurses Association [13] advocate the inclusion of spiritual well-being in health needs. Nonetheless, how spiritual care integrates into nursing practice and impacts patient outcomes remains unclear.

Even though patients receive relief from physical, psychological, and spiritual problems [14], 80% continue to receive ineffective spiritual care and demonstrate dissatisfaction with clinicians [15]. Evidence indicates the critical gap between the care demanded and the care offered to spiritual needs. This gap highlights the need for nursing care plans to integrate spiritual care and assist patients in confronting existential inquiries surrounding life and mortality [16], [17], [18]. This study aimed to identify spiritual care by analyzing nursing data gathered in electronic health records and to compare the psychological and physical comfort between older, chronically ill patients receiving spiritual care versus those not receiving spiritual care.

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# Section snippets

#### Data

This secondary data analysis used a 3-year longitudinal data set containing nursing care plans, including diagnoses, outcomes, and interventions. Ethics approval was obtained from

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the University of Florida Institutional Review Board (IRB202201691). The Hands-on Automated Nursing Data System (HANDS) data was collected in real-world test interventions from 2005 to 2008 in four Midwest hospitals and nine medical-surgical units [19].

We have 42,403 episodes of care documented for 34,466 patients....

# Psychological comfort

We identified 15 patients who received spiritual care at admission with observed psychological comfort. We find that patients with the worst psychological comfort at admission had a significantly higher probability of receiving spiritual care (estimator=-1.263, std. error=0.420, p=0.002). The 1:2 PSM resulted in 30 matched controls. The final psychological comfort was recorded 8.3 (SD=12.7) nursing shifts after admission in the spiritual care receiver group and 7.0 (SD=6.9) shifts for ...

## Discussion

This study provided preliminary evidence that spiritual care had a positive impact on the psychological comfort of older, chronically ill patients, but further studies are needed to examine whether the finding is generalizable to a larger or different patient population.

Admission to a hospital can be stressful and lead to anxiety and fear for individuals, including the emotional impact of being ill, the risk of treatment complications, and the need to be monitored in an unfamiliar environment....

# Conclusions

Using interoperable nursing data, our findings suggest that spiritual care improves psychological comfort in older patients facing chronic illness. The positive association between spiritual care and psychological comfort suggests that nurses may integrate spiritual care into their usual care to support patients experiencing distress. Further research is required to explore spiritual care's immediate and long-term effects on comfort. Studies should consider a larger sample and patients with...

# Summary Table

Problem	Despite increasing evidence of the benefits of spiritual care for older patients coping with serious illness and aggressive treatment, the role of spirituality in nursing practice is not well understood and implemented.
What is already known on this topic	Spiritual care has received less attention than other nursing practices because of the challenges to implementing spiritual care in clinical settings due to the complex definition of spirituality, its applicability, and difficulty in

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#### CRediT authorship contribution statement

**Fabiana Cristina Dos Santos:** Conceptualization, Data curation, Methodology, Formal analysis, Writing – original draft, Writing – review & editing. **Tamara G.R. Macieira:** Writing – review & editing, Validation, Supervision, Resources. **Yingwei Yao:** Writing – review & editing, Validation, Resources, Methodology. **Monika Ardelt:** Writing – review & editing, Validation, Conceptualization. **Gail M. Keenan:** Validation, Supervision, Resources, Funding acquisition, Conceptualization....

#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper....

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