

## Study Vital Indexes of Geriatric Nursing and its Application in Hospitals

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**Abstract:** The main purpose of this study is investigation vital indexes of nursing and its application in hospitals. Gerontological nursing is the specialty of nursing pertaining to older adults to support healthy aging, maximum functioning, and quality of life. In this study, the use of aged care services, including basic services and support services for the elderly was questioned. Health variables and sign of nursing abuse were discussed. The findings of this study can bridge the gaps in information on geriatrics and geriatric care. Results showed that elderly people who are restrictions on the motion and more disability in their daily living activities to higher levels of medical care services used. Elderly people who are able to do yard work and housekeeping and personal care are not often suffer from high levels of limitations in physical function. Seniors are often semi-independent or affiliated to require a higher level of surveillance and with individual assistance in planning or are admitted to care centers.

[Ayoob Faridi. **Study Vital Indexes of Geriatric Nursing and its Application in Hospitals.** *Biomedicine and Nursing* 2016;2(4): 21-25]. ISSN 2379-8211 (print); ISSN 2379-8203 (online). <http://www.nbmedicine.org>. 4. doi:[10.7537/marsbnj020416.04](https://doi.org/10.7537/marsbnj020416.04).

**Keywords:** Geriatric Nursing, Geriatric care, Older adults, Hospital

### 1. Introduction

Gerontological nursing is the specialty of nursing pertaining to older adults. Gerontological nurses work in collaboration with older adults, their families, and communities to support healthy aging, maximum functioning, and quality of life. Gerontological nursing draws on knowledge about complex factors that affect the health of older adults. Older adults are more likely than younger adults to have one or more chronic health conditions, such as diabetes, cardiovascular disease, cancer, arthritis, hearing impairment, or a form of dementia such as Alzheimer's disease. As well, drug metabolism changes with aging, adding to the complexity of health needs.

Aging is associated with increased restrictions on the movements and an increase in chronic diseases. With increasing age tend to use hospital services and medical care and drugs will increase. Since long-term chronic disease treatment and are rarely the cause of many disabilities and decreased quality of life in the elderly. Therefore, an important role in rates of use of services and medical care. Physical function (physical function) is one means to assess physical health. After age 65, the base level of activity significantly reduced.

Registered nurses who work at elderly care facilities specialize in an area of medicine called geriatrics. They focus not only on the physical ailments associated with aging, but also with mental impairments such as Alzheimer's disease and dementia. Many of these nurses have only general nursing training, while others hold advanced degrees or certification in geriatric nursing.

Gerontological nurses work in a variety of settings, including acute care hospitals, rehabilitation, nursing homes (also known as long term care homes and skilled nursing facilities), assisted living facilities, retirement homes, community health agencies, and the patient's home. Depending on the conditions of the geriatric's health determines what type of facility one should reside in. Assisted living facilities are also known as a senior retirement home that provides care services depending on health conditions. Skilled nursing otherwise known as a nursing home is a place where they can reside and get provided with 24/7 cares.

To work at nursing homes, retirement communities and assisted living facilities, registered nurses need at least an associate degree in nursing or a Bachelor of Science in nursing. To hold supervisory positions, they sometimes need a master's degree or certification in nursing management or geriatric nursing. For example, some pursue graduate degrees to become gerontological nurse practitioners or geriatric clinical nurse specialists. Nurses can also earn certification in gerontological nursing through the American Nurses Credentialing Center.

One of the key aims of the NSF for Older People was to root out age discrimination in the NHS. But almost ten years after the document was published, ageism is still rife, said Deborah Morris, directorate manager for specialist services for older people at the Royal Liverpool and Broadgreen University Hospitals NHS Trust. The NHS is a microcosm of society, and society is still ageist. Poor standards of care for older people have always existed, yet until something sensational happens, nothing is done.

The duties for a registered nurse in an elderly care facility vary by the facility. Duties might include basic assistance such as helping patients bathe, dress themselves, get up and down, walk, and use wheelchairs or walkers. RNs also monitor patients' conditions and assess their vital signs, noting any physical or mental decline and reporting back to the doctor. In addition, they administer medications and other treatments and help patients manage common age-related conditions such as incontinence, sleep disturbances or loss of mobility.

Older adults have been referred to as "the core business of healthcare" by gerontological nursing experts. Population aging and the complexity of health care needs of some older adults means that older adults are more likely than younger people to use health care services. In many settings, the majority of patients are older adults. Thus, experts recommend that all nurses, not only those identified as gerontological nurses, need specialized knowledge about older adults. This position was endorsed by 55 US nursing specialty organizations.

Gerontological nursing includes generalist and specialist practice. A generalist is a registered nurse or Licensed Practical Nurse. A gerontological nurse specialist is an advanced practice nurse or nurse practitioner who has graduate education in gerontological nursing. National nursing organizations such as the American Nurses Credentialing Center, the Canadian Nurses Association offer certification in gerontological nursing. In order to be certified, the nurse must have a minimum academic preparation, experience as a gerontological nurse, and write a certification exam. Requirements for maintaining certification vary. Post graduate certificates in gerontological nursing are also available by completing continuing education courses through colleges and universities.

As in other areas of practice, nursing care of the elderly should be based on an established body of knowledge that clearly delineates the best gerontological nursing practices. Just as recognized standards of nursing practice underpin pediatric and psychiatric mental health nursing, the care of older adults also has recognized standards of gerontological care.

Although the aforementioned activities are encouraging, the overwhelming consensus on the part of gerontological nursing leaders is that gerontological nursing has not received satisfactory attention in baccalaureate nursing programs. Both scholarly investigation and anecdotal evidence over the past two decades' point to the dismal status of gerontology in nursing education and practice. Regardless of the source, a number of recurring themes appear in the literature on gerontological nursing: the need for

stand-alone courses in gerontology, ie, courses dedicated to care of the elderly; the imperative for faculty prepared in gerontology; the need to provide meaningful clinical experiences for students; and the profession's obligation to "put teeth" into these recommendations by making gerontology a requirement for licensure. The purpose of this survey was to clarify the apparent dissonance between demographic trends and trends in baccalaureate nursing education so that discrepancies, if they exist, can be addressed and corrected. In addition, this survey was intended to provide baseline

#### **Health variables**

- Psychological distress (anxiety and depression)
- Mental well-being
- Physical function
- doing activities of daily living

#### **Signs of nursing abuse include:**

- Broken bones or fractures
- Bruising, cuts or welts
- Bed sores
- Frequent infections
- Signs of Dehydration
- Mood swings and emotional outbursts
- Reclusiveness or refusal to speak
- Refusal to eat or take medications
- Unexplained weight loss
- Poor physical appearance or lack of cleanliness
- Changes in mental status

Research focused on falls and mental health problems other than dementia is very limited, although a positive association has been identified.<sup>56</sup> Older adults with cancer who are receiving neurotoxic agents, especially those who receive multiple agents, are also at an increased risk of falls and fall-related injuries.<sup>57</sup> Often these fall risk factors do not exist in isolation, but are additive, such as a sensory deficit worsening an already unsafe environment or multiple central nervous system-active medications impairing postural balance.

#### **Medication modification**

Research investigating medication review and modification combined with an educational component for family practitioners significantly reduced the risk of falling. However, medication review and modification alone as a single strategy was ineffective. Nurses could have an impact on the risk for falling by either reviewing or facilitating medication reconciliation. This is of particular concern regarding medications with central nervous system side effects, such as psychotropics or those which influence blood pressure. When reviewing medications, nurses can compare the client's

medications against the Beers Criteria to identify potentially inappropriate medications which are associated with a high risk of adverse side effects such as orthostatic hypotension and/or falls. Particular categories of drugs with these high risks include tertiary tricyclic antidepressants, benzodiazepines, nonbenzodiazepine hypnotics, alpha blockers, and alpha agonists. This article reviews the noted high risk medication categories as well as other commonly used medications related to risk for falls.

#### **Pharmacological and non-pharmacological sleep therapies and falls**

Sleep problems are associated with falls in older adults aged 64-99 years. Forty-four percent of older adults' experience one or more insomnia symptoms a few nights per week or more, and older adults take more prescription and over-the-counter sleep medications than any other age group. International research has focused on the problem of falls in older adults and sleep medications, particularly drugs classified as sedative-hypnotics including benzodiazepines, "Z" compounds, and antihistamines. As a class, sedative-hypnotics are thought to increase the risk of falls through their CNS side effects, particularly those related to balance, sedation and anticholinergic properties, which would include orthostatic hypotension (low blood pressure on arising). Across a variety of older adult settings (community, residential, acute care, rehabilitation) sedative-hypnotics increase the odds of falling by almost one-half.

#### **Cognitive behavioral therapy**

Given the prevalence of elderly people in the health care system, it behooves the nursing community to assure that every nurse graduating from a baccalaureate nursing program has a defined level of competency in care of the elderly. To accomplish this, it is necessary to establish a baseline of the current status of geriatric content in the baccalaureate curriculum. This article provides such baseline data using the findings of a national study of geriatrics in baccalaureate nursing programs.

Due to the CNS side effects of so many sleep medications, nonpharmacologic sleep interventions may be safer alternatives for many older adults. Cognitive behavioral therapy is actually considered the first-line of therapy for insomnia, to be equal in effectiveness and to have more sustained effectiveness over time than medications.<sup>135</sup> Non-pharmacologic interventions, such as stimulus control therapy which focuses on the re-association of the bed and bedroom with sleep, and relaxation therapy which focuses on reducing cognitive arousal and somatic (muscle) tension, may promote sleep without increasing fall risk. Although not recommended as a single intervention, sleep hygiene education, which aims to

increase client knowledge of the sleep process and sleep-promoting behaviors, such as the importance of a regular sleep-wake schedule, may help improve sleep and thus decrease fall risk. Sleep hygiene education is consistent with the teaching role of nursing and engages the client to be an informed and active participant in his/her own care. Sleep hygiene is also considered most effective when individually tailored, which is also consistent with nurses' views of clients as having unique personal and cultural preferences and needs.

#### **Results:**

Atypical antipsychotics were the predominant antipsychotics for patients with dementia or delirium which is similar to another study of the 65,618 nursing home patients prescribed antipsychotics, 91% were prescribed atypical antipsychotics. In this study and the Huybrechts et al, study, risperidone, quetiapine, and olanzapine were prescribed most frequently. This is very similar to results from other evaluations of national prescribing trends. While the use of risperidone and olanzapine are understandable given the evidence supporting limited efficacy in dementia, the frequent use of quetiapine is somewhat perplexing. Five randomized controlled trials have found overall that quetiapine is no better than placebo for management of agitation and psychosis in people with Alzheimer's or vascular dementia. Only one secondary analysis of one trial found that 200 mg/day quetiapine was more effective than placebo for dementia-associated agitation, but this dose exceeds the CMS allowable dose for chronic use of quetiapine in nursing home residents with dementia. Other flexible dose trials allowed similar doses and showed no beneficial effect of quetiapine. One potential explanation for use of quetiapine is that it is a highly sedating antipsychotic, so sedation may be confused with efficacy.

The Nurses Improving Care for Health system Elders (NICHE) program offered by the NYU Rory Meyers College of Nursing has been designating acute care hospitals for their exemplary geriatric nursing care for over 2 decades. NICHE is designed to provide clinicians and healthcare institutions with the resources they need to increase knowledge of geriatric conditions among interdisciplinary staff, improve nursing competencies in the care of older adults, and support the implementation of evidence-based geriatric protocols to develop action plans and improve outcomes.

Pilot sites that have participated in the NICHE LTC program have reported preliminary data on reductions in falls, pressure ulcers, urinary tract infections, and hospitalizations. Organization-wide learning will result in better care and better outcomes. The goal of the NICHE LTC program is to encourage

an organization-wide, nurse-driven culture to improve clinical outcomes for older adults, foster professional growth and interdisciplinary opportunities for staff, empower staff to improve older adult and family satisfaction, and improve staff competencies in the care of older adults.

In order to reduce unnecessary antipsychotic use. Challenging behaviors for persons with dementia are common and multi-faceted being attributable to the environment, chronic conditions, health, or medications. More than 80% of nursing home residents with dementia exhibit one or more forms of

challenging behaviors. Examples of challenging behaviors include agitation, anger, depression, disrobing, eating abnormalities, hoarding, inappropriate sexual behavior, irritability, paranoia, physical and verbal aggression, repetition, swearing, and withdrawal.

The antipsychotics most frequently reported as being used for patients with dementia or delirium across nursing homes were risperidone, quetiapine, and olanzapine. These were also most frequently reported as the most commonly used antipsychotics within individual facilities. (Table 1)

Table 1: Work characteristics of geriatric nursing.

| Variable                                      | DONs       |
|-----------------------------------------------|------------|
| Age in years (n = 153)                        | 45.4 (9.7) |
| Range                                         | 23–66      |
| Years in practice (n = 156)                   | 20.4 (9.9) |
| Range                                         | 2–44       |
| Years employed current nursing home (n = 156) | 10.2 (9.4) |
| Range                                         | 0–40       |
| Gender (n = 156)                              |            |
| Female                                        | 154 (98.7) |
| Male                                          | 2 (1.3)    |
| Race (n = 154)                                |            |
| American Indian                               | 3 (1.9)    |
| Asian                                         | 0          |
| Black                                         | 0          |
| Native Hawaiian                               | 0          |
| White                                         | 151 (98.0) |
| Ethnicity (n = 104)                           |            |
| Hispanic                                      | 0          |
| <sup>a</sup> Nursing education (n = 156)      |            |
| Associate's degree                            | 97 (62.2)  |
| Bachelor's degree                             | 41 (26.3)  |
| Diploma                                       | 14 (9.0)   |
| MS                                            | 6 (3.9)    |
| PhD                                           | 1 (0.6)    |

### Conclusion:

Elderly patients with chronic diseases compared to those who are acutely ill patients to higher levels of care and services. Results showed that elderly people who are restrictions on the motion and more disability in their daily living activities to higher levels of medical care services used. Elderly people who are able to do yard work and housekeeping and personal care are not often suffer from high levels of limitations in physical function. Seniors are often semi-independent or affiliated to require a higher level of surveillance and with individual assistance in planning or are admitted to care centers.

### References:

1. Brower, H. T. (2015). An analysis of associate degree nursing models. In *Strategies for long-term care* (pp. 409-412). New York: National League for Nursing.
2. Brower, H. T. (2014). Knowledge competencies in gerontological nursing. In *Strategies for long-term care* (pp.135-161). New York: National League for Nursing.
3. Brower, H. T. (2014). The nursing curriculum for long-term institutional care. In *Strategies for long-term care* (pp. 49-68). New York: National League for Nursing.
4. Brower, H. T., & Yurchuck, R. E. (2016). Gerontological content: How much is enough? *Nursing and Health Care*, 14, 198-205.
5. Dellasega, C., & Curriero, E (2014). The effects of institutional and community experiences on nursing student's intentions toward work with the elderly. *Journal of Nursing Education*, 30, 405-410.

6. Edel, M. K. (2012). Recognize gerontological content. *Journal of Gerontological Nursing*, 12(10), 28-32.
7. Fox, S. D., & Wold, J. E. (1996). Baccalaureate student gerontological nursing experiences: Raising consciousness levels and affecting attitudes. *Journal of Nursing Education*, 35(8), 348-355.
8. Fulmer, T., & Matzo, M. (Eds.). (2013). *Strengthening geriatric nursing education*. New York: Springer. Health Resources and Services Administration Bureau of Health Professions. (2015). *A national agenda for geriatric education: White Papers*. Rockville, MD: U.S. Department of Health and Human Services.
9. Canadian Gerontological Nursing Association. "CNGA 2014 Bylaw". Retrieved 7 July 2014.
10. Canadian Gerontological Nursing Association. "Gerontological Nursing Competencies and Standards of Practice 2010" (PDF). Canadian Gerontological Nursing Association. CGNA. Retrieved 7 July 2014.
11. Center for Medicare & Medicaid Services. What is nursing home compare?. Accessed 05.11.14, <http://www.medicare.gov/nursinghomecompare/About/What-Is-NHC.html>; Published 2014.
12. Touhy, Theris A.; Jett, Kathleen F. (2014). *Ebersole and Hess' gerontological nursing & healthy aging* (4th ed.). St. Louis, Mo.: Elsevier/Mosby. ISBN 978-0-323-09606-5.
13. Eliopoulos, Charlotte (2014). *Gerontological nursing* (8th ed.). Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins. ISBN 978-1-4511-7277-5.
14. World Health Organization (WHO). "Ageing". Retrieved 7 July 2014.
15. World Health Organization (WHO). "Interesting facts about aging". Retrieved 7 July 2014.
16. Pew Research. "Attitudes about aging: A global perspective". Pew Research. Retrieved 7 July 2014.
17. Vincent, Grayson K.; Velkoff, Victoria A. "THE NEXT FOUR DECADES The Older Population in the United States: 2010 to 2050" (PDF). U.S. Department of Commerce, U.S. Census Bureau. Retrieved 7 July 2014.
18. American Association of Colleges of Nursing; Hartford Institute of Geriatric Nursing (September 2010). "Recommended Baccalaureate Competencies and Curricular Guidelines for the Nursing Care of Older Adults" (PDF). American Association of Colleges of Nursing. Retrieved 8 July 2014.
19. National Database of Nursing Quality Indicators (NDNQI). Guidelines for Data Collection on the American Nurses Association's National Quality Forum Endorsed Measures: Nursing Care Hours per Patient Day, Skill Mix, Falls, Falls with Injury. Available at: <http://www.nursingquality.org/Content/Documents/NQF-Data-Collection-Guidelines.pdf>; Cited March 10, 2015.
20. Donoghue OA, Ryan H, Duggan E, et al. Relationship between fear of falling and mobility varies with visual function among older adults. *Geriatr Gerontol Int*. 2014;14:827e836.
21. Centers for Disease Control and Prevention (CDC) National Center for Injury Prevention and Control, Division of Unintentional Injury. Falls Among Older Adults: An Overview. Available at: <http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html>; 30/12/2013. Cited March 11, 2015.

11/20/2016