Valdosta State University

From the Selected Works of Rebecca D. Green

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Application of the Self-Care Deficit Nursing Theory to the Care of Children with Special Health Care Needs in the School Setting

Rebecca D. Green, Valdosta State University

Available at: https://works.bepress.com/rebecca_green/4/
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Letter from the Editors

In this issue, we are pleased to publish papers from three countries: Turkey, Vietnam and the USA. All but one of the papers were presented at the 12th IOS World Congress. Since our last issue, two IOS World Congresses have taken place. Selected abstracts from the 11th IOS World Congress are published on the IOS website, http://www.orem-society.com/. Peer reviewed papers from the 12th IOS World Congress are available in the 2012 – Volume 29 Bulletin Luxembourgeois Des Questions at: http://www.mss.public.lu/actualites/2012/08/art_blos_29.

Vi Berbiglia shares with you her efforts to build SCDNT scholarship, first in Vietnam, and more recently Armenia. We invite you to submit what you are doing to promote the SCDNT. Remember that Self-Care, Dependent-Care & Nursing is THE place for SCDNT-based literature. This journal is the official IOS refereed online journal (http://www.orem-society.com/) and continues to be referenced in CINAHL/Ebsco.

It was disappointing to us to have to skip a year of publication due to the lack of suitable manuscripts. We encourage you to commit to supporting the journal through your own submissions and those of your colleagues and students. Self-care is the key word in the world’s health care systems, and WE are the leaders in the utilization and application of the SCDNT. Our responsibility, as SCDNT-based professionals, is immense. Dorothea E. Orem’s legacy is ours. May we renew our dedication to sharing this legacy.

Violeta Berbiglia
Virginia Keatley

From the President

Since the publication of the last issue of this journal, IOS members have been busy with the opportunity to present their work and exchange information related to self-care deficit nursing theory at two international IOS sponsored congresses. The 11th International Congress was to have been held in Thailand in November 2010. However, due to political unrest this was postponed to March 2011 with the congress being held in conjunction with the 2nd International Conference on the Prevention and Management of Chronic Conditions. In addition to the IOS the conference was co-sponsored by the faculties of nursing of Mahidol University and Prince Songkha University of Thailand, and the schools of nursing of the University of North Carolina Chapel Hill and Yale University, and the World Health Organization. Abstracts from this conference are available on the IOS web-site. This is the second time our Thai colleagues have hosted our congress. As before, they were gracious hosts and generously shared their culture, music and dance with us as well providing participants with excellent conference facilities.

The 12th Congress was held in May of this year in Luxembourg and was co-sponsored by the Luxembourg Ministry of Social Security. There were presenters from more than 25 nations and participants from more than 30 – evidence that the topic “Future Nursing Systems - New Approaches - New Evidence for 2020” is of international interest. Presentations from this congress are available on two web-sites – http://www.ioscongress2012.lu and http://www.orem-society.com. In addition the 2012 – Volume 29 of the Bulletin Luxembourgeois Des Questions Sociales has been exclusively devoted to this conference. We are indebted to our hosts in Luxembourg for providing us with excellent conference facilities. We are indebted to our hosts in Luxembourg for providing us with excellent conference facilities, planning social activities which allowed participants to get to know each other better as well as the opportunity to exchange ideas and for sharing with us information about the long-term care system in Luxembourg, including recent developments and ongoing planning. In addition to presentations related to nursing systems, one of the themes of the conference. There were papers concerned with attention to the physical environment, communication systems, systems of funding, variations in government involvement, and ethics of caregiving, to name only a sampling of topics.
The IOS Board of Directors has decided that our next congress will be held in four years. In the intervening time, emphasis will be on organizing and supporting the development of work groups and internet communication systems to support continuing development of the self-care deficit nursing theory, to facilitate co-operative development of education programs, to share information about nursing strategies, and to share research developments. In addition, the board anticipates working with persons and groups interested in sponsoring regional conferences and workshops. Be sure to check the IOS website frequently for up-dates regarding these activities.

Kathie Renpenning

Editors’ Column: Agency

Violeta Berbiglia, MSN, EdD, RN and Virginia Keatley, PhD, RN

David Brooks’ insightful editorial renewed my interest in Orem’s concept of agency. Initially, I was thrilled to discover that Brooks spoke of such a scholarly concept in the public press. Thrill turned to enlightenment as I analyzed the editorial and reviewed related literature.

Brooks’ editorial provided readers a way to think theoretically about living a well-considered life. Brook’s reflections, stimulated by Clayton Christensen’s essay in the *Harvard Business Review*, centered on two common visions of life: (a) the Well-Planned Life (from Christensen’s essay), and (b) the Summoned Life (conceptualized by Brooks). Brooks theorized: “The person leading the Well-Planned Life emphasizes individual agency and asks ‘What should I do?’” (Brooks 2010, p. 7b). As for the Summoned Life, Brooks theorized that, in that vision, individual agency is diminished and context is enlarged.

As I questioned what I own as my vision of life, I traced the origins of the conceptualizations of structure and agency. Georg Simmel pioneered the concepts of structure and agency. The concept of agency is rooted in Talcott Parson’s Structural-Functionalism, an action theory. Pierre Bourdieu’s work attempted to reconcile structure and agency. In Bourdieu’s *Theory of Practice*, the agent is socialized in a social domain where “capital” (such as prestige or financial resources) is at stake. As the individual accommodates to roles/relationships, expectations are internalized, forming the *habitus*. Berger and Luckmann envisioned a similar schema: a society that forms the individuals who create society — a continuous loop. James Samuel Coleman’s model, the Coleman Boat, conceptualized a link between individual action and structure and the resulting change to that structure. Giddens developed Structuration Theory, an attempt to move beyond the dualism of structure and agency. He suggested that the agent has the ability to consciously change his place in the social structure. The structure/agency dialectic continues to be analyzed and applied in select social science fields.

Two theories of nursing espouse the concept of agency: Orem’s Self-Care Deficit Nursing Theory (SCDNT) and Husted and Husted’s Symphonological Bioethical Theory.
The Nursing Development Conference Group (NDCG) (1979, p. 181) interpreted Parson’s concept of agency as "...a means for exerting power, an ability" and referred to the person who exercises the power as an agent. Orem’s own definition of agency is “The power to engage in action to achieve specific goals” (2001, p. 514).

The SCDNT conceptual framework includes three categories of agency: self-care agency, dependent-care agency and nursing agency.

We encounter the concept of agency again in Husted and Husted’s Symphonological Bioethical Theory (a theory of agreements) (2010). Their definition of agency is: "Agency is the capacity of an agent to initiate action towards a chosen goal" (2010, p. 563). The shared goal of a nurse and a patient is to restore the patient’s agency. Dr. Gladys Husted explained to me their rationale for the use of the terms agent and agency:

We decided on agent since we did not go along with the idea of the nurse or any health care professional (HCP) being a surrogate – one who acts for another. We believe that the patient is his or her own agent and acts for self when possible – and the entire role of the HCP is to return the person to his/her own agency – where the person can once again be his or her own agent and make decisions for self. Thus, we define nurse as the agent of the patient doing for the patient what the patient would do for self if able – we extend this definition to any health care professional – the difference is in the role. We define patient as one who has lost or suffered a decrease in his or her agency – lost the ability to take those actions that his/her survival or flourishing requires. (G. Husted, personal communication, August 25, 2011).

In conclusion, let’s return to Brooks’ theorizing and ask ourselves: Do social structures determine an individual’s behavior – or does individual agency? Three different positions consider this structure versus agency question:

- Position 1 Methodological Holism: Social existence is largely controlled by the overall structure of society, as is individual agency.
- Position 2 Methodological Individualism: Individual agency includes individuals’ capacity to construct and reconstruct their worlds.
- Position 3 Structuration Structure and agency are complementary forces – Structure affects human behavior; and humans can change their social structures.

We challenge readers to send us your perceptions of which of these 3 positions is taken by (1) the SCDNT and (2) the Symphonological Bioethical Theory. Contact us: violetaberbiglia@hotmail.com and drkeatley@aol.com.

Suggested Readings


Relationship Between Self-care Agency, Self-care Practices and Obesity among Rural Midlife Women

Linda Burdette, PhD, RN

Abstract

Purpose: To examine the relationship between self-care (SCA), self-care practice (SCP), and obesity among rural midlife women.

Background: Obesity is a world-wide health concern. Self-care practices are linked to obesity reduction, yet no prior studies of the relationships between self-care and obesity among rural midlife women were identified. This study applied Orem’s Self-Care Deficit Nursing Theory and Rural Nursing Theory as the theoretical frameworks.

Method: A predictive correlational design was used. Participants completed demographic and basic conditioning factors (BCFs) data, Denyes Self-care Agency Instrument (DSCAI-90©) and Denyes Self-care Practice Instrument (DSCPI-90©). Anthropometric measurements were height and weight. A predictive model of self-care in rural midlife women was constructed based on Orem’s theory and rural nursing theory.

Results: Participants were 224 ambulatory rural women, ages 40-64 years, from 10 northern counties of an upper plains state. Mean age was 52 years. Mean body mass index (BMI) was 29.2. Education and health status were facilitators to SCA with smoking as a barrier. Education, employment and health status were identified as facilitators of SCP with smoking and chronic illness as barriers. Self-care agency predicted self-care. The hypothesized model was tested and revised. BMI had the greatest direct effect on SCA. Self-care agency had the greatest direct effect on SCP. No significant relationship was found between SCA, SCP and distance to healthcare provider. A negative relationship was found between chronic diseases and SCP, but not SCA. Qualitative data identified the meaning of health, self-care and impact of distance on access to healthcare in rural midlife women.

Conclusion: By capitalizing on the facilitators and minimizing the barriers to SCA and SCP, nursing may tailor interventions to address obesity. The model suggested new knowledge of the relationships of SCA, SCP and BMI in rural midlife women.

Keywords: Midlife women, obesity, Orem, rural, self-care

Introduction

The United States (U.S) is experiencing a health crisis. The obesity rates exceed 25% in 38 states with two-thirds of adults obese or overweight (Levi et al., 2011). The prevalence of obesity in South Dakota has increased in the last five years from 23.8% to 30.2% (The United Health Foundation et al., 2010).

The economic burden of obesity is a national, state and global concern. The national health care expenditures for 2008 totalled $2.34 trillion dollars (U.S. Census, 2011). U.S. could spend over $343 billion on health care costs for obesity if current trends continue for the next ten years (Thorpe, 2009). South Dakota’s obesity median attributable health care spending in 2008 was $220 million with the potential to reach $398 million by 2013 if current trends continue (Thorpe, 2009).

Obesity related costs for 10 European countries ranged from 0.09% to 0.61% of national gross domestic income (Müller-Riemenschneider et al., 2008). A Canadian review identified the direct cost for overweight and obesity at $6 billion or 4.1% of total health care expenditures in 2006 (Anis et al., 2010). Taiwan’s excess medical expenditures attributed to overweight and obesity in 2001 were NT$30.1 billion or approximately 8% of total medical expenditures (Hu et al., 2008).

The purpose of this non experimental, predictive correlational study was to examine the relationship between self-care agency (SCA), self-care practices (SCP), and obesity in rural midlife women. Barriers and facilitators to SCA and SCP were examined. A causal model, self-care in rural midlife women, was hypothesized and tested.

Dorothea Orem’s self-care theory and rural nursing theory provided the theoretical framework for the study. Self-care is the central concept of the self-care theory. Self-care is defined as “the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being” (Orem, 2001, p.43). Self-care agency as defined by Orem is “the complex acquired capability to meet one’s continuing requirements for self....” (Orem, 2001, p. 245).
Self-care agency and self-care are influenced by basic conditioning factors (Orem, 2001).

Rural nursing theory is a developing middle-range theory. Long and Weinert (1998) identified the need for a framework for nursing practice to meet the health care needs of rural persons. The key concepts are work beliefs, health beliefs, isolation, distance, self-reliance, lack of anonymity, outsider/insider, old timer/newcomer, informal networks, lay care networks, familiarity and professional isolation (Long & Weinert, 1998).

With rural midlife women at the center, the rural environment envelops with the key concepts and basic conditioning factors (BCFs) influencing engagement in self-care agency and self-care practices (Figure 1).

**Literature Review**


Lee (1999) examined relationships among BCFs, SCA, self-care and six health outcomes in Pakistani women. BCFs of education, and freedom of movement had a positive influence on self-care, while number of male children and ethnic group had a negative effect on self-care.

Education was found to be significantly correlated and/or predictive of self-care agency and self-care (Campbell & Soeker, 1999; Campbell & Weber, 2000; Lee, 1999). The positive correlation

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**Figure 1.** Self-care agency and the rural environment. Adapted from Denyes, et al., (2001) and Lee, H. and Winters, C. (2006).
between education and SCA is consistent with Orem’s theory. Hurst et al (2005) found education either negatively or not significantly correlated with self-care agency or self-care.

The literature review identified age as significantly correlated and/or predictive of self-care agency (Baker & Denyes, 2008; Campbell & Weber, 2000; Slusher, 1999; Wang & Laffrey, 2001; Wang, 2001). However studies also showed that age was negatively or not significantly correlated with self-care agency or self-care (Anderson, 2001; Campbell & Soeker, 1999; Hurst et al., 2005; Wang, 2001).


Denyes (1988) found in her classic study that SCA and self-care were predictors of general health state. Other studies confirmed that SCA and self-care were predictors of health state (Anderson, 2001; Campbell & Soeker, 1999; Frey & Denyes, 1989; Lee, 1999).

Basic conditioning factors (BCFs) are factors or characteristics that influence self-care agency and self-care (Denyes, 1988; Orem, 2001). Basic conditioning factors are internal or external and affect an individual’s ability to engage in self-care (Hurst et al., 2005; Lee, 1999; Slusher, 1999). Only two studies utilizing Orem’s theory explicitly addressed basic conditioning factors in the analysis of data (Denyes, 1988; Hurst et al., 2005).


**Gaps in the literature**

No studies were identified related to the relationship of self-care to rural mid-life women and obesity. No studies utilized both Orem’s theory and the rural nursing theory as a theoretical framework. In the studies reviewed, the need to identify BCFs and the need to explicitly address BCFs in the analysis was identified. Limited studies explored health-deviation self-care requisites and self-care agency power components. The impact of the rural environment on self-care and obesity in rural midlife women is an area lacking research.

**Research Methodology**

The relationship between self-care agency, self-care, and obesity in rural midlife women was studied utilizing a non experimental, predictive correlational design.

**Instruments**

Participants completed three instruments (Demographic Instrument, Denyes Self-Care Agency Instrument (DSCAI-90©), and Denyes Self-Care Practices Instrument (DSCPI-90©). Anthropometric measurements were height and weight. Body mass index (BMI) was calculated. Permission was obtained for the copyrighted instruments.

The Demographic data instrument addressed select BCFs. The BCFs for the study were organized by sets as recommended by Orem literature (Hurst et al., 2005; Orem, 2001). Set one included age, marital status, ethnicity, number of children living in the home, and education. Set two, pattern of living, included tobacco use and place of residence. Set three, health state and health system, included health state, date of last physical exam, number of chronic conditions, insurance, and distance from health resources. The demographic data instrument included five open-ended questions related to health, self-care, impact of distance, facilitators and barriers to self-care. A pilot study to assess face validity was conducted with five members of the public not associated with the research project.

Denyes Self-Care Agency Instrument (DSCAI-90©) measures self-care agency. The instrument was originally designed for use with adolescent populations, but has been utilized effectively in adult populations (Anderson, 2001; Baker, 1997; Campbell, 1989; Campbell and Soeker, 1999; Campbell and Weber, 2000; Hurst et al., 2005; Lee, 1999). The DSCAI-90© is a 34 item self-report instrument. The ratio scale yields scores from 0 to 100. A visual scale is available to aid participants. A total score and six scale scores can be calculated. The six scale scores are ego strength, valuing of health, health knowledge and decision-making capability, energy, feelings, and attention to health (Denyes, 1990).

Content and construct validity were established by factor analysis, pilot testing, and correlation between self-care agency, self-care...
practices and health status (Campbell & Soeken, 1999; Canty-Mitchell, 2001; Denyes, 1988; Hurst et al., 2005; McBride, 1991). The factor analysis and correlation of the instrument with self-care practices to determine construct validity was established using 181 adolescents (Canty-Mitchell, 2001; Gast et al., 1989). Evidence of internal consistency, test-retest and alternate forms of reliability were demonstrated in the initial instrument development (Denyes, 1988). Cronbach’s alpha coefficient has ranged from 0.87 to 0.92 in previous research (Anderson, 2001; Baker, 1997; Campbell, 1989; Campbell & Stoken, 1999; Canty-Mitchell, 2001; Denyes, 1988).

Denyes Self-Care Practice Instrument (DSCPI-90©) is a general measure of self-care or self-care activities that meet universal self-care requisites (Andrews et al., 2009; Denyes, 1988; Slusher, 1999). The instrument is appropriate for use with healthy populations as well as diseases/conditions (Andrews et al., 2009). The instrument was based on Orem’s definition and theory of self-care (Andrews et al., 2009; Denyes, 1988; Gast et al., 1989). The DSCPI-90© is a self-report 18-item. The ratio scale yields scores from 0 to 100. A visual scale is available to aid participants (Denyes, 1990). The original instrument development research demonstrated internal consistency, test-retest reliability, content, and construct validity (Denyes, 1988; Frey & Denyes, 1989). Construct validity has been supported by correlation between DSCPI scores and self-care agency and health status (Anderson, 2001; Dashiff, McCaleb, & Cull, 2006).

Andrews, Richard and Aroian (2009) conducted a factor analysis and concurrent validity of a measure of self-care. The population was 308 registered nurses in a large south eastern hospital system. Findings identified that the 18-items were normally distributed. Alpha coefficient for the total scale was 0.92. The analysis supports that the instrument is multidimensional. The factor analysis conducted was the first published analysis of the instrument since 1988 (Andrews et al., 2009).

Setting and Sample Population

The study setting was ten counties in the northeast portion of South Dakota. South Dakota is located the north-central part of the United States.

The sample was a convenience sample of women, ages 40-64 years, ambulatory and able to read and write English. Marital status was neither exclusion nor inclusion criteria. Excluded from the study were women living in an assisted living, nursing home, or receiving home health care services.

Human Subjects Approval

Approval for this study was obtained from the South Dakota State University’s Human Subjects Committee. Participants received information about the risks and benefits, nature of their involvement, and the purpose of the study. A cover letter contained an implied consent statement. Confidentiality of the participant’s identity was maintained by the removal of names and any identifiers.

Subject Recruitment

Recruitment included notices in the local newspapers, flyers in community centers, grocery stores, convenience stores, health care facilities, and a county fair booth. As a recruitment incentive, all participants were eligible for a $20 gift card drawing at the conclusion of each data collection session.

Data Collection, Entry, and Analysis

A standardized process was followed for each data collection session. Data were stored in a locked file cabinet. Demographic data and measurement/instrument data were stored separately.

The PASW® Statistics Grad Pack 17.0 was used to analyse the quantitative data. Frequencies were compiled on the BCFs, instrument scores, and BMI. Pearson’s Product-Moment correlation coefficient ($r$) was utilized to quantify the relationship between total score of SCA, SCP and BMI, and BCFs. Multiple regression was used to predict outcomes and explain interrelationships among variables. Path analysis was utilized to test the relationship between the independent and dependent variables. Both direct and indirect effects were studied.

Based on critical literature review and study research questions, a path model was designed (Figure 2). The path analysis was used to test the correlational relationship among education, age, number of chronic conditions, distance from healthcare provider, body mass index (BMI), self-care agency and self-care.

Data from the open-ended questions were analyzed for clusters of similar ideas until no new ideas emerged. The clustered ideas are identified themes. The goal of the data analysis was to illuminate the experience of rural midlife women.

Findings and Discussion

The convenience sample was 224 women. Ethnicity was 98.7% White with 0.4% American
Indian and 0.4% Asian. The average age was 52.15 years of age (SD = 5.932) with 81.3% married. Participants employed full-time were 80.8%. Bachelor degree was identified most frequently as the highest education level (n=65, 29.1%).

The average number of children high school or younger living at home was 0.60 (SD= 0.951) with 63.8% (n=143) having no children living at home. The range was from zero to five children.

The majority of participants identified their health status as very good (44.6%) or good (36.6%) with the mean score of 3.56 (SD = .801) on a scale of 1(poor) to 5(excellent). Participants averaged 0.8 chronic diseases with a mean time from last physical exam of 9.5 months. Hypertension was the most reported chronic disease (27.8%).

The mean body mass index for the participants was 29.165 (SD= 6.969, n=224). The mean height was 64.501 inches (SD= 2.621). Mean weight was 172.04 pounds (SD= 41.54). Overweight and obese participants accounted for 68.4% with 35.8% of participants in the obese BMI category.

The mean for DSCAI-90© was 75.713 (SD= 10.06). The mean scores of each of the 34 items of the DSCAI-90© ranged from 37.871 to 94.804. Cronbach’s alpha for this tool was 0.809. The mean for DSCPI-90© was 65.814 (SD= 16.657). The mean scores of the each of the 18 items ranged from 53.237 to 85.371. Cronbach’s alpha for this tool was 0.917.

What are the major facilitators and barriers to self-care agency in rural midlife women?

Facilitators to SCA were education (r=.213, p =.001) and health status (r=.455, p =.000). Education as a facilitator for SCA is consistent with previous research (Campbell and Soeker, 1999; Campbell and Weber, 2000; Lee, 1999). There is a statistically significant positive relationship between SCA and SCP (r =.693, p =.000) indicating participants with a higher self-care agency score had higher self-care practices.

Smoking was a barrier to SCA with a statistically negative relationship with smoking currently or in the past (r =-.135, p =.043). The findings indicate that smokers either past or current have lower SCA. No significant correlation was found between chronic disease and SCA.

The facilitators, barriers, and self-care practices through hierarchical multiple regression explained 50% of variance of self-care agency (Table 2). Data was reviewed for multicollinearity with tolerance (.699-.973) and variance inflation factor (VIF) (1.021-1.42).

**p<0.05. Dependent variable: SCA. β= Standardized regression coefficients. n=224**

![Table 1. BMI Classification in Rural Midlife Women (n= 224)]

<table>
<thead>
<tr>
<th>BMI Classification</th>
<th>Obesity Class</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight (&lt;18.5)</td>
<td>1</td>
<td>0.4%</td>
<td></td>
</tr>
<tr>
<td>Normal (18.5-24.9)</td>
<td>70</td>
<td>31.3%</td>
<td></td>
</tr>
<tr>
<td>Overweight (25.0-29.9)</td>
<td>73</td>
<td>32.6%</td>
<td></td>
</tr>
<tr>
<td>Obesity (30.0-34.9)</td>
<td>I</td>
<td>38</td>
<td>17.0%</td>
</tr>
<tr>
<td>(35-39.9)</td>
<td>II</td>
<td>23</td>
<td>10.3%</td>
</tr>
<tr>
<td>Extreme Obesity (&gt;40)</td>
<td>III</td>
<td>19</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

**Table 2. Hierarchical Regression Analysis of Facilitators and Barriers on SCA**

<table>
<thead>
<tr>
<th>Step</th>
<th>β</th>
<th>R²</th>
<th>R² Change</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td>.226</td>
<td>.226</td>
<td>F (2, 219) = 31.917, p=.000**</td>
</tr>
<tr>
<td>Health Status</td>
<td>.431**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.142*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td>.230</td>
<td>.005</td>
<td>F (3, 218) = 21.735, p=.000**</td>
</tr>
<tr>
<td>Health Status</td>
<td>.421**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.142*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td>-.068</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td>.501</td>
<td>.270</td>
<td>F (4, 217) =54.373, p=.000**</td>
</tr>
<tr>
<td>Health Status</td>
<td>.100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.109*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td>-.009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCP</td>
<td>.622**</td>
<td></td>
<td></td>
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</tbody>
</table>
Qualitative themes identified as facilitators to SCA by the study participants were knowledge, importance of health, and positive reinforcement by family and friends. Two questions on DSCAI-90© ask percent of time family and friends encourage you to take care of your health. The mean responses to the questions were 37.871 and 44.121 respectively. This finding indicates that positive reinforcement by family and friends is seen as a facilitator but may not be occurring on a consistent basis.

Themes identified as barriers to SCA were balancing personal, family and work needs; lack of energy; and lack of motivation and self-discipline. One participant wrote, “I have so many commitments with family, work, church and activities that I don’t have time”. Another participant wrote about the energy needed to work in town.

What are the major facilitators and barriers to self-care practices in rural midlife women?

Education ($r = .139$, $p = .038$) and employment ($r = .132$, $p = .049$) were identified as facilitators to SCP. This finding is support by previous studies (Lee, 1999, Campbell and Soeker, 1999; Campbell and Weber, 2000). Hurst et al. (2005) found no significant correlation between education level and SCP. Health status ($r = .538$, $p = .000$) was found to be a facilitator to SCP. Previous studies have identified SCP as a promoter or predictor of health state (Anderson, 2001; Campbell and Soeker, 1999; Denyes 1988; Frey and Denyes, 1989; Lee, 199).

Barriers to SCP were smoking ($r = -.171$, $p = .011$) and chronic illness ($r = -.194$, $p = .004$). Denyes (1988) found presence or absence of health problems not significantly correlated with self-care practices.

The facilitators, barriers, and self-care agency through hierarchical regression explained 56% of the variance of self-care practices or the concept, self-care(Table 3). No problems with multicollinearity were identified from tolerance (1.007-1.365) and VIF (1.007-1.365).

Qualitative themes identified as facilitators to SCP were family and friends; knowledge; use of the internet; and group support. A participant indicated that a facilitator was “having family and friends”. Participants identified acquiring knowledge from health magazines, healthcare provider, books, internet and printed materials, and television. Participants report use of the internet to acquire information on self-care and maintain health. Participants identified group exercise class or group challenges as a facilitator of self-care.

Barriers identified by participants were: time, motivation and self-discipline, and money. One participant stated “finding/making time to be every place/placing priorities at home. Not enough hours in the day for self”. One participant commented ‘mostly lack of self-discipline when making healthy choices. It is difficult to turn down a good German meal”. A participant commented, “Finances, foods that are good for you are more expensive in the winter”. The rural culture was identified as a barrier to self-care. A participant wrote “how I was raised in a rural community”.

<table>
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**$p<0.05$. Dependent variable: SCP. $\beta =$ Standardized regression coefficients. $n = 224$
What is the correlation between basic conditions, BMI, self-care agency, and self-care practices in rural midlife women?

Path analysis was conducted on the hypothesized model. The hypothesized model suggested a positive direct path between education, distance and the two dependent variables (SCA and SCP) with a negative direct path between age, BMI, number of chronic diseases. After two revisions, the final model was identified.

The Final Model was constructed with the independent variables, education level, BMI, and number of chronic diseases (Figure 3). The dependent variables remained SCA and self-care (SCP). All paths in the final model were significant at the 0.01 and 0.001 levels. Good of fit indices (NFI, CFI, and RSMEA) indicate a good fit for the final model. The final model suggests that as BMI increases the level of self-care agency decreases leading to a decrease in self-care. Conversely, as the level of education increases the level of self-care agency increases leading to increased self-care. When the number of chronic diseases increases, there is a decrease in self-care.

A negative relationship exists between self-care agency and BMI in rural midlife women.

The hypothesis was supported by the findings. A statistically significant negative relationship at the 0.01 level was identified between BMI and SCP (r = -.278, p = .000, n=224, r² = .077). Simple linear regression was conducted to develop a prediction equation, SCP = 85.209 - 0.665 BMI, (F (1, 222) = 18.628, p = .000, β = -.278, 95%CI [76.105, 94.313]). F-test for slope confirmed BMI may be used to predict self-care (Fₚ = 6.67).

A positive relationship exists between self-care agency, self-care practices and the distance from healthcare provider in rural midlife women.

The hypothesis was not supported. No statistically significant positive relationship was noted between the total SCA score (r = -.009, p = .445, n = 219), SCP (r = .017, p = .148, n= 219) and distance to healthcare provider. Participants (90.5%, n =190) reported no impact of distance on access to healthcare.

Meaning of Self-care

Orem defined self-care as “practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and
well-being” (Orem, 2001, p.43). Rural nursing theory identified self-care as “activities self-initiated and performed for self or family members in response to symptoms” (Buehler et al., 1998, p.322). Participants were asked to respond to an open-ended question, “What does self-care mean to you?” The written qualitative data was analyzed for cluster/themes until no new ideas emerged. The definition derived from the data was: self-care is taking care of and responsibility for self by making good choices and remaining independent. This definition is congruent with Orem’s definition. However, the definition is not congruent with rural nursing theory concept of self-care.

Meaning of health

Health, as defined by Orem, is a state of being whole and sound (Morales-Mann and Jiang, 1993). Rural nursing theory defines health as being able to do what the person wants to do; it is a way of life and a state of mind (Lee and McDonagh, 2006). Participants were asked to define health. The written qualitative data was analyzed for cluster/themes until no new ideas emerged. The definition of health derived from the data was: health is well being of mind, body and soul supporting the ability to work and play. The definition derived from the study supports both Orem and Rural Nursing Theory definitions.

Conclusion and Further Research

The study identified facilitators, barriers to SCA and SCP. Findings confirmed that self-care agency is a predictor of self-care. This finding is consistent with previous research (Anderson, 2001; Baker and Denyes, 2008; Denyes, 1988; Lee, 1999; Slusher, 1999; Wang, 2001).

A causal model, self-care in rural midlife women, was hypothesized and tested. The strongest effect on self-care was SCA with BMI and education providing indirect effects. The strongest effect on SCA was the negative effect of BMI. Number of chronic illnesses also provided a negative effect on self-care. Level of education provided a positive effect on SCA.

The model suggests that interventions to increase SCA must address BMI. Interventions to increase self-care should focus on the effects of any chronic disease and increasing SCA. Interventions should be tailored to address BMI and education levels.

BMI were found to negatively influence SCA and SCP. The number of chronic diseases did not negatively influence SCA, but did influence SCP. Distance did not negatively affect the participants’ ability to care for self.

Self-care was defined as taking care of and reasonability for self by making good choices and remaining independent. This definition is congruent with Orem’s definition. However, the definition is not congruent with rural nursing theory concept of self-care.

Health was defined as well being of mind, body and soul supporting the ability to work and play. The definition derived from the study supports both Orem and rural nursing theory definitions.

Nursing Practice Implications

Through understanding the relationship of obesity, self-care agency and self-care practices, nursing may address the obesity epidemic. The meaning of health and self-care for rural midlife women can assist nursing in the identification of strategies to promote health and self-care. The facilitators and barriers identified provide nurses with knowledge for designing strategies to promote SCA and SCP.

Nursing Education Implications

The addition of the rural nursing theory is suggested for all levels of nursing education in rural areas. Nursing education should provide opportunities for students to develop and tailor interventions to promote health, self-care and self-care practices for rural residents.

Strengths of the study

The study is grounded in a nursing theoretical framework. The study utilized Orem’s self-care and rural nursing theory. The study is the first to link self-care agency, self-care and obesity with rural mid-life women. The study provided definitions for health and self-care from a rural midlife woman’s perspective.

Limitations

The study was conducted during the summer months. Self-care behaviors may vary with seasons and not be representative. The self-report of chronic disease has a potential for underestimation of chronic diseases. The study lacked ethnic diversity. The study was conducted in a portion of the state and not be representative of the entire population. The findings are only representative of the study population and are not to be generalized. The path analysis does not confirm causation, but is a diagram of the patterns of correlation and may reflect a hypothesis of causation.
Additional research is needed to understand the relationship of the rural environment and the health of midlife women. A longitudinal study should be conducted to determine changes in SCA and SCP over time and seasons. DSCAI-90© and DSCP1-90© instruments should be tested further with rural and Native American cultures to identify validity and reliability with these cultural groups. Further research is suggested to test the final model, self-care in rural midlife women, with other populations and ethnic groups. Research is needed to test interventions that target the barriers and facilitators of self-care agency and self-care to decrease BMI in rural midlife women. The underlying mechanism of the relationship between self-care agency, self-care, and BMI in rural midlife women remains unclear and further research is needed to define the relationship.

The relationship of distance to healthcare provider, SCA and SCP warrants further study with frontier and other rural populations. Research on the impact of technology on the concept of self-care agency, self-care, and BMI in rural midlife women remains unclear and further research is suggested to test the relationship.

Conclusion

The prevalence, economic and health consequences of obese and overweight identified substantial needs to be addressed at the personal, local, national, and global levels. Nursing as a profession must be an active player in identifying solutions for the obesity and overweight crisis. Increasing nursing knowledge of the relationship of self-care and obesity among mid-life women in the context of the rural environment can provide new knowledge to address the obesity crisis.

Recommendations for future study


Denyes, M (1990). Denyes Self-Care Agency Instrument (Available from M.J. Denyes, College of Nursing, Wayne State University, Detroit, MI).


Challenging RN-BSN Students To Apply Orem’s Theory To Practice

Susan Davidson, EdD, RN

Abstract:
It is a challenge to engage RN-BSN students in learning to apply nursing theory. In associate degree nursing programs, nursing theory is barely mentioned and not discussed in detail. This paper reports the experience of one university nursing program that adopted Dorothea Orem’s nursing theory as the basis for its curriculum. The RNs were introduced to Orem’s theory in their first course. Subsequent courses continued to build on this knowledge.

An issue of importance to professional nursing was chosen by the professor for the Nursing Issues course, in their 3rd sequence of classes. In an attempt to engage RN students in applying Orem’s theory, a group project was designed to help them apply the theory to their practice. Groups of four were assigned a “characteristic” of nursing agency. Because this was a hybrid course, much of the group work occurred online, with both student and professor posting articles from the literature. Formative evaluation was given. In the last face-to-face class, the groups presented, and students were able to see a holistic view of an issue of importance to nursing, with Orem’s theory providing context. By applying Orem’s theory to a nursing professional issue, the RNs learn the theory and its relevance to their current practice.

Keywords: Nursing agency, nurse characteristics, Orem, RN-BSN education

Introduction

The American Nurses Association (ANA) established the bachelor of science in nursing (BSN) as the minimum degree requirement for professional nursing (ANA, 1965a). At that time, many nursing programs were located at community colleges and awarded the two year associates degree while colleges and universities offered the four year BSN degree. The availability of nurses has gone through periods of surplus and shortage, but the current conditions point to a much greater problem. Goodin (2003) demonstrated that the aging of the nursing workforce is happening on top of a period of shortage. The effect is that the size of the total workforce is not keeping pace with both current demand and replacement of retiring nurses. Further, more medical settings are requiring the BSN as the entry degree as they attempt to reach Magnet Recognition by the American Nurses Credentialing Center (ANCC, 2011). Nurses currently working with an Associate’s degree or diploma certificate, are often encouraged to complete the BSN as part of their continuing professional growth. The result has been a tremendous push to increase the number of non-degree nurses who complete the BSN (National Advisory Council on Nurse Education and Practice, 2006). Baccalaureate nurses have been shown to provide better patient care (Aiken, Clarke, Sloane, Lake, & Cheney, 2008), and the professional standing of nurses is supported.

As a result, associate degree registered nurses (RNs) are returning to the classroom in record numbers to obtain the BSN degree. The reason for this return for further nursing education has many explanations. The BSN may be required for job promotion, a requirement for employment, the next step in pursuit of a graduate degree in nursing, or personal satisfaction. The healthcare facility where the RNs are employed may be seeking Magnet Recognition status which requires a high percentage of RNs to have the BSN degree (ANCC, 2011).

Whatever the motivation, pursuing further nursing education is a challenge. Most RNs are working full time jobs as well as dealing with family and personal responsibilities. Education is in addition to an already busy life; for many, it has been a number of years since they were in a classroom.

Associate degree programs do not include a separate course in nursing theory as with BSN programs, so students typically enter the BSN program with little or no knowledge of nursing theory. Those who have heard of nursing theory are suspicious of its usefulness. A number of BSN programs organize their curriculum around...
a particular nurse theorist. Nursing theory and theorists have a unique vocabulary. This can be confusing initially to RN students who have been educated and practice using a medical model. The challenge for the nurse educator is to create a learning environment where the RN student not only learns nursing theory and its language, but incorporates it into practice.

The faculty in a baccalaureate program designed an RN-BSN curriculum based on the theory of Dorothea Orem (2001). The traditional BSN program in the School of Nursing had already organized its curriculum using Orem’s Self Care Deficit Theory of Nursing. The nine courses in the RN-BSN program incorporate Orem’s theory. This paper will look at one particular course, the nursing issues course, to demonstrate how Orem’s theory was applied to current practice issues.

The Nursing Issues Course

With the large enrollment in the class, (30-50), group projects are one way to maximize the class time and involve all of the students in the learning process. To decrease the stress on the students, the course professor designed a class group project allowing each group to come up with individual ideas to present based on a characteristic of nursing agency.

Nursing Issues, the target course, is taught in a hybrid format over 7 weeks with three face to face class meetings. Since all students in the class were involved in full time employment, the project had to be based on a relevant nursing issue that would engage, challenge and interest the students (Davidson, Metzger & Lindgren, 2011). The students were divided into groups. Each group was labeled according to one of the designated nursing agency characteristics from Orem’s theory. This was done in an effort to help the RN students become familiar with Orem vocabulary and begin to incorporate it into their practices.

The Group Project

Nursing agency encompasses the skills and life experiences a nurse gains over the years through education and practice. According to Orem (2001), there are three domains of nursing practice for which she describes desirable characteristics. From Orem’s description, the faculty identified specific desirable characteristics of nursing agency relating to the social, interpersonal, as well as professional technologic role of the nurse. The student groups were assigned each to one of the following desirable characteristics: effective repertoire of communication skills; transformative teaching; leadership; ethical practice; prudent (legal) practice; cultural sensitivity; and professional behavior (Secrest, 2010). The instructions for the group project were outlined as follows.

1. Working within the context of your group, research the issue named. Use the group discussion board, the weekly discussion questions, your individual searches as well as group findings to address the issue.
2. Develop a nursing department in-service on how you would implement the project from your group’s viewpoint. Look at the characteristics of nurse agency and the project topic to develop your in-service. Remember, this is a whole new way of thinking or approach for some nurses. Your group is in charge of this in-service to educate the nursing staff. This is your paper and power point presentation.

During the 7 week course, discussion questions were posted weekly pertaining to the group topic. Also, articles of interest were posted along with the charge for the students to find related articles. The discussion questions centered on the students’ perception of the group project in relation to the nursing agency characteristic. For example, over the past four years that the course has been taught to RN students, the following topics have been addressed: Obtaining Magnet Recognition, Mandatory Nurse to Patient Staffing Ratios, Nurse Recruitment and Retention and Mandatory Continuing Education Units (CEU) to maintain nurse licensure.

The Assignment

The assignment involves research on the topic using current literature, develop a nursing staff in-service, submit a formal paper, and create a power point presentation. The last class is devoted to the presentations of aspects of a topic, pulling together a much broader perspective for all.

An example from a recent class went as follows: Many states require and many professional nursing organizations recommend continuing education units (CEUs) as an indicator of competency in the profession and to maintain licensure. Should registered nurses in the state of Tennessee be required to complete CEUs to maintain licensure and competency? If so, how might this requirement be structured? How many CEUs are sufficient to maintain competency and licensure? Is obtaining CEUs a true measure of competency? If you do not think CEUs should be required, why not? Do you propose some other method for registered nurses to maintain
competency and licensure? How does Orem’s theory address continuing education?

Each group began by defining its nursing agency characteristic. Next, group members researched what the state of Tennessee requires for RN nurse competency and maintenance of licensure. An exploration of what other states required was conducted. The groups also reviewed the requirements at the facility in which they practiced. Finally, the groups researched what professional nursing organizations recommended, to begin their discussion.

The weekly discussion boards and assignments helped the students to focus on the group project. The first week started with having them discuss how nursing as a profession has contributed to the improvement of healthcare in the U.S. This was to be based on what they had read from posted articles as well as articles they searched for and posted for their group. They were asked to identify the laws, regulations and standards under which they practice as a registered nurse. In addition, did the facility where they currently practice support and use these laws, regulations and standards of practice? What factors determined their decision to work at their current facility? Was the environment one that supported professional nursing behavior? Does practicing at a health care facility that incorporates a nursing theory enhance the professional environment? The weekly reflection papers centered on addressing the questions posed from the nursing agency characteristic of their group.

Each group first had to decide its position on mandatory CEUs. If they responded yes, they had to structure a program on how many CEUs’ would be required, what topics would be covered, and how the CEUs’ would be offered to the nursing staff. Several groups suggested five CEUs per year to cover the following five topics: prevention of medication errors; legal documentation; pain management; ethical issues; and workplace violence. This group located these topics as CEU offerings on the state board website. The topics are free and a certification of completion can be printed out. The requirement would be annually.

**Characteristics of Nursing Agency**

The group with the nursing agency characteristic of effective repertoire of communication skills looked at how to inform the nursing staff of CEU requirements to maintain competency. This group looked at Orem’s definition of communication as follows: “To make common among humans intangible things such as thoughts, feelings, or information expressed in some tangible way as through statements or diagrams” (Orem, 2001, p. 515). They took this definition and looked at the following ways to communicate with the nursing staff. Examples mentioned were informational staff meetings, online information in facility newsletters, posters, email notification and potty post-its. The potty post-its is a creative way that involves posting flyers on the inside stall doors of the bathroom. This group proposed that a variety of communication methods would need to be implemented to ensure that all nursing staff was aware of the requirements and how to obtain them.

The prudent (legal) practice group applied Orem’s theory to support continuing education as necessary to assist the patients to meet self-care requisites. Nursing care is needed when patients are unable to meet self-care requisites. When a patient has a self-care deficit, nursing care and education are needed in order to regain a state of normalcy. Orem (2001) stated “The nurse attends to his or her legally and occupationally defined roles and responsibilities…” (p. 38) and poses the question, “Am I legally and occupationally qualified to take on the roles and responsibilities of nurse in this practice situation?” A patient care example used by the group involved a patient presenting to the emergency department in an active tonic-clonic seizure. Usual practice in the community a few years ago would have been to place a bite block in the patient’s mouth. Research and evidence based practice have shown that it is not prudent to insert a bite block when a patient is seizing for fear of causing damage to the patients teeth and jaw. This group concluded that in order to help the patient reach full self-care agency, a nurse must be competent and up-to-date on current nursing care to include wholly compensatory, partially compensatory or supportive-educative care.

The transformative teaching group viewed its charge as follows: “to use teaching as a method of assisting others, it requires that the helper know thoroughly what the person to be helped needs to know” (Orem, 2001, p. 59). This group decided to distribute a survey tool to the nursing staff for input as to what the staff thought were the topics that needed to be required each year. This involved topics pertinent to all nurses. The nurses would then choose two topics for their specialty area of practice. This group wanted to capture the nurses’ interest by getting their input and then offering the topics the nurses thought necessary to maintain competency.

The professional behavior group suggested annual renewal by completing five CEU’s in the following manner: five CEU’s per year for the nurse who has worked 1,600 hours or more; ten CEU’s per year for the nurse who has worked
1,000 to 1,599 hours; and 15 CEU's per year for
the nurse who has worked 200 to 999 hours. For
those nurses who have worked less than 200
hours per year, the requirement would be 15
CEU's and 20 hours volunteer work in a medical
setting using nursing knowledge and skills in
performing patient care. This group then listed
a number of professional nursing organization
websites that offer CEU's. They saw professional
behavior as "the ability of nurses to creatively
design adequate means for identifying and
describing nursing requirements and to design,
put into operation, and manage systems of nursing
assistance for individuals, families and groups
is one characteristic of the professional nurse"
(Orem, 2001, p. 93).

The leadership group included the nurse
managers and nurse leaders as well as nursing
staff who needed to be compliant with maintaining
competency in nursing practice. This group
looked at the technologic domain of nursing
agency characteristics and concluded that
according to Orem (2001), the technologic
domain addresses leadership as follows, "Is able
to integrate the use of methods of helping with
the technologic operations toward the production
and management of effective nursing systems
for individuals and multi-person units" (p.292).
This group went on to say that nurses should
be involved in lifelong learning to keep up with
the ever changing environment in healthcare.
They also concluded that managers and leaders
should be held to a higher standard of annual
competency. As leaders, they are role models
to the nursing staff and should not just mandate
what needs to be done, but be examples also.
See Table 1 for summary.

Summary

Nursing agency and its various characteristics
are "a set of developed and developing capabilities
that persons who are nurses exercise in the
 provision of nursing for individuals or groups"
(Orem 2001, p. 289). In this course, the groups
are other nurses who have a need for education
on a particular topic. The need requires interaction
by nurses with other nurses. As a result of this
course and this group project, the RN students
gained a better understanding of how to base
their practice in theory. This course format has
been very highly rated by students. Some of their
comments include:

“The group discussion and project was a
different approach to learning and applying
a nursing theory in real life.”

“This class has really broadened my
knowledge on Dorothea Orem and
heightened my curiosity so that I will do
further research on her theory.”

“I have a better perspective of what nursing
really is after learning to apply Orem’s eory
to my practice.”

“By taking this class, I gained a better
understanding of how nursing fits into the
healthcare field.”

“This is the first class I have ever had in
which I was able to learn in whatever way
was best for me at the time, and with the
general subject matter augmenting the
primary framework (Orem) provided by the
course.”

“That I actually use nursing theory in my
practice every day!”

As many of the students are not enthusiastic
about learning nursing theory when they enter
the program, these comments have been very
gratifying. The RNs not only learned about Orem’s
theory but realized that nursing theory plays an
important role in their practice.

Table 1. Example of course topic with student group examples for the characteristics of
nursing agency.

| Topic: Continuing Education Units for Continued Competency Requirements for Licensure |
|---|---|
| Characteristics | Examples of Focus |
| Effective Repertoire of Communication | Staff meetings, newletters, posters, email and potty post-its |
| Prudent Legal Practice | Standards of care, evidence based practice |
| Professional Behavior | Managing systems of nursing |
| Leadership | Life long learning, leaders & managers as role models |
| Transformative Teaching | What does the RN need to know? |
Conclusion

The application of a theory to nursing practice provides many distinct advantages. First, by providing organizing principles to evaluate patient care, the nurse has a rationale for making decisions. Second, as nurses encounter the rationale for patient care, it encourages them to ask more broadly about the theory or evidence that supports practice. From these two advantages we also compliment training on how to systematically evaluate, set guidelines, and apply abstract principles, all of which encourage critical thinking. Finally, nurses regularly report a reconceptualization of their role as a nurse. By using Orem’s theory in the curriculum, RN students now see their profession as having an intellectual basis. When they view their practice through the application of theory, it opens them to more self-reflection for professional development.

References


Exploring Factors Related to Healthy Ageing
Catherine Gilbert, EdD, RN
Debra Hagerty, DNP, RN
Helen M. Taggart, DSN. RN

Abstract
As the population in the world ages, knowledge of healthy ageing is becoming more important. The April 2012 World Health Day, recognizes the importance of knowledge of healthy behaviors. This knowledge can support successful ageing and identify strategies to facilitate older adults leading productive lives in their homes and communities. Therefore, this phenomenological study exploring factors related to healthy ageing is timely. Using a qualitative methodology, elders were interviewed to discover perceptions of facilitators and barriers to healthy ageing. The following facilitators of successful ageing were revealed; taking care of self, positive attitude and meaningful activity. The barriers of successful ageing revealed were; giving up and giving in, ageing process and environmental limitations. Findings from this study can help guide nursing and supportive interventions to foster healthy ageing. Assumptions for this study are as follows: (a) People may indicate and explain their views in a one on one interview in ways that are less likely to occur in a focus group format, (b) Individual interviews may give a sense of security and encourage sharing to those who may be anxious about participating in a group experience, and (c) Elderly persons living independently are more healthy than elderly persons living in a dependent situation. The results revealed a number of limitations related to the methodology: small convenience sample size; the disproportionate percentage of female to male participants; participants from one geographical location. This research will inform nursing practice, influence public policy, and facilitate development of nursing curriculum in the care of older adults. Specifically, this research provided credible evidence necessitating future investigation regarding the self-care barriers experienced by elders and heard through their voices. Basic conditioning factors related to environmental obstacles in healthy ageing were significant. Findings will be shared with policy makers and agencies supportive of community self care.

Keywords: Ageing, Barriers, Facilitators, Self-Care

Introduction
Successful healthy ageing is impacted by a healthy lifestyle and is positively related to a reduced mortality risk and a delay in health deterioration (Merrill, et al., 2008). Healthy ageing is not limited to absence of disease and disability, “but as the reflection of the lived experience of daily life, as a capacity to engage meaningfully with and respond to the contingencies of daily life regardless of afflictions and disabilities” (Bryant et al., 2001).

Understanding the older adult’s perception of facilitators and barriers to healthy ageing is important to the practice of nursing and informs strategic planning that influences public policy, nursing curriculum, and nursing practice identifying self-care and meaningful activities supportive to elders in independent living.

The aim of this study was to explore the factors associated with healthy ageing through personal interviews. This phenomenological study utilizing Dorthea Orem’s Self Care Nursing Theory (Orem, 1971), investigated older adults’ (aged 80-95 years old) perceptions of facilitators and barriers to healthy ageing. Utilizing researcher led interviews and thematic outcome data evaluation; facilitators and barriers to healthy could be identified. This research format provides an important contribution to the body of knowledge. The research answered the knowledge gap giving voice to the elders regarding their impression of facilitators and barriers to healthy ageing. There is a paucity of research identifying facilitators and barriers to healthy ageing from the perspective of the elders.

The research identified three themes as facilitators to healthy ageing: taking care of self; meaningful activity; and positive attitude. Barriers to healthy ageing identified were: giving up or giving in; environmental limitations; and the ageing process. These findings are important in the development of supportive programs and elder services, specific to the themes identified, as well as to assessments of elders’ current state of well-being and self-care agency. Programs and services that incorporate mechanisms for minimizing the barriers and supporting facilitators will promote improved care for community dwelling elders. A limitation of this study is the small sample size; the disproportionate percentage of female to male participants; participants from one geographical location.
size of 10 older adults living in an urban area in the southeastern United States. Thus, the findings may not be generalizable.

**Background**

According to the World Health Organization (WHO) the world’s population of people ages 60 years of age and older has doubled since 1980 and is forecast to reach 2 billion by 2050 (WHO, 2012). Healthy older people are integral members of family and society making important contributions within the fabric of life. Determinants of facilitators and barriers to healthy ageing may ensure elders are supported in both community and alternate living environments. The WHO recognizes the benefits of potential contributions elders make, yet ageing begets special health challenges for the 21st century. In an era of budget constraints, limited resources, and increased demands on health care and social resources, understanding how to support healthy ageing for elders is crucial. Importantly, health providers and communities must be prepared to meet the specific needs of older populations. This includes but is not limited to “training for health professionals on old-age care; preventing and managing age-associated chronic diseases; designing sustainable policies on long-term and palliative care; and developing age-friendly services and settings” (WHO, 2012, para 2).

The importance of healthy ageing is also reflected in the mission of the Center for Disease Control and Prevention (CDC) CDC Healthy Ageing Research Network (CDC-HAN, ND) and the European Union Active and Healthy Ageing partnership (ND). The mission of the CDC Healthy Ageing Research Network is “To better understand the determinants of healthy ageing in diverse populations and settings; to identify, develop, and evaluate programs and policies that promote healthy ageing; and to translate and disseminate research into effective and sustainable public health programs and policies throughout the nation (CDC, para. 4). Regions that utilize research to guide the development of programs, which support healthy ageing, can expect significant social and economic benefits. Understanding the facilitators and barriers of healthy ageing may engender global transformations, one community at a time.

The aim of the European Union Innovative Partnership (EUIP) is to “bring together key stakeholders to define a positive vision for ageing well, establish common priorities for innovation, to identify and address the barriers to innovation and to accelerate and scale up the introduction of relevant innovative solutions across Europe” (EUIP, 2010 – para 1). The EUIP has supported research into the factors associated with healthy ageing. One project is the EU-Integrated Project GEHA (Franceschi, et al., 2008). The conclusion is that genetics play a vital role in healthy ageing. Studies of centenarians support the role of genetics (Frisard et al., 2007; Oswald, et al., 2010). Other factors that have been identified include nutrition (Atlantis, et al., 2008; Halvorsrud et al., 2012; Hughes, Bennett, & Hetherington, 2007), physical activity (Stuart, Chard, Benvenuti, and Steinwachs, 2009)), and environment (Halvorsrud et al., 2012; Iwarsson et al., 2007; Oswold, et al. 2010). There is a paucity of qualitative research into the facilitators and barriers to healthy ageing examining the perceptions of the ageing individual.

**Research Methodology**

**Sample and Setting**

This phenomenological study was designed to examine perceptions of the elderly on the facilitators and barriers of healthy ageing. Phenomenological methodology is best suited to research that is looking at uncovering a deep understanding of the lived experience of everyday experiences (Burns & Grove, 2009; Fain, 2009). Semi structured interviews were conducted with elderly persons aged 80 years and above to explore participants’ perspective on factors that facilitate healthy ageing and factors considered as barriers to healthy ageing. Semi-structured interviews using open-ended questions provide some organization for the researcher that aids in the collection of narrative experiences that explore a particular phenomenon of interest (Fawcett & Garity, 2009). The participants consisted of 10 persons ranging in age from 80 to 95; there were 7 women and 3 men. Qualitative research, by its nature, requires a small sample size to support the process of extracting thick, rich data (Lincoln & Guba, 1985). All interviews were conducted in the participants’ home and were audiotaped and transcribed verbatim. Confidentiality was guaranteed by removing participants’ last names from the transcripts.

**Data Collection**

Institutional Review Board (IRB) approval was obtained through the host institution. A purposive sample of 10 elderly persons agreed to participate in the study. Purposive sampling is appropriate when the researcher has knowledge of the population and can select participants that are living the phenomenon of interest (LoBiondo-Wood & Haber, 2006). Each participant was known to the researchers either through colleagues or sharing common interests such as church. The interviewer
met each participant in his or her home and explained the purpose of the research. Participants were given a verbal and written explanation of the research reviewing the purpose of the study, outlining the risks and benefits of participation and, assurance of privacy and confidentiality. The interviewer answered any questions or concerns voiced at that time and participants were given the opportunity to withdraw from the study at this point. Participants wishing to proceed signed an informed consent to participate.

There was no time limit placed on the length of each interview. The interviewer continued until the participant felt they had nothing further to add related to the subject area. The times for each interview ranged from approximately 20 minutes to 30 minutes. Confidentiality was maintained throughout the study. The interviews were transcribed with last names eliminated and participant’s transcription was labeled using their first name.

**Interview Questions**

Four semi-structured open-ended questions developed from a brief review of literature were used to generate discussion to clarify perceptions of healthy ageing. Although all questions addressed facilitators and barriers to healthy ageing, the questions were modified for appropriateness depending on whether the participant understood the nature of the question.

1. The interview questions were: What do you think has contributed to your longevity?
2. What do you do to stay healthy?
3. What are the factors that help you remain active?
4. What are the barriers to remaining active?

**Data Analysis**

For this study, a modified method of Patton’s (1987) analysis and interpretation of qualitative data was utilized. Patton recognized that the analysis brings order to the data, and interpretation involves attaching meaning and significance to the analysis. A typist transcribed the ten audiotapes verbatim. The researchers reviewed the research and interview questions generated during the conceptual phase of the qualitative process. The transcripts were read and reread independently by two of the researchers to obtain a feeling of familiarity for each participant’s expressed meaning, to get a sense of the whole, and to provide interrater reliability.

Patton (1987) recommended using a case approach in analyzing the data. All data from each case (interview) were organized and a case study was developed. The first participant’s written transcript was reread with significant statements and thematic descriptions extracted and labeled. Patterns and themes were identified as they emerged from the data. For this study, DeSantis and Ugarriza’s (2000) definition of theme was utilized. The researchers defined a theme as an abstract entity that brings meaning and identity to a recurrent experience and its variant manifestations. As such, a theme captures and unifies the nature or basis of an experience into a meaningful whole. Significant statements, thematic descriptions, and verbatim quotes were organized around each theme. This procedure was repeated for each interview.

Content analysis, the next step in Patton’s (1987) approach, involved identifying coherent and important examples, themes, and patterns in the data. The data were labeled and a data index was established. Common themes emerged from the data as each interview was compared and contrasted.

**Findings and Discussions**

The participants did not differ significantly with regards to perceptions of facilitators and barriers to healthy ageing. Three themes emerged across interviews relating to facilitators to healthy ageing.

**Taking Care of Self**

According to Orem (1995), when self-care is effectively performed, it maintains structural integrity and human functioning and contributes to human development. The person’s ability to care for self requires “deliberate and purposive action” (Orem et al., 2001) that culminates in health. Self-care agency is the power to care for self (Orem, 1971). All participants spoke of caring for self as a contributing factor to their longevity. They described eating a healthy diet, participating in regular exercise, socializing with others, meeting their spiritual needs, and, availing themselves of medical interventions as needed to remain physically and emotionally healthy. Dottie stated, “I think just staying active does it because the less active I am, the less I can do.” Francis noted that she “watched my diet, my whole life I have watched my diet.” Mary talked about daily exercise and keeping busy, “you have to be up and going … I work six days a week, I walk six miles almost every day … if you can keep doing that, you’re OK.” Willie stated, “You have to keep active and keep your mind stimulated. We take the medicines we are supposed to … and intercourse with other people.”
Positive Attitude

Orem identified three types of self-care requisites that provide the basis for self-care. Developmental self-care requisites bring about living conditions that support life and promote human progress toward maturity. Coping with developmental milestones like ageing can prevent damaging effects of human growth or mitigate its negative effects (Orem, Taylor & Renpenning, 2001). All participants discussed having a positive attitude as contributing to their longevity, mitigating effects of ageing, and contributing to health. Tom talked about “keeping a good state of mental health” and “becoming aware of how easy it is to get into trouble” as helping him to stay healthy and remain active. Francis noted that “not sitting around feeling sorry for myself” helped her to remain active. She discussed the importance of being responsible for oneself saying, “I don’t have anybody saying you can’t do this or you can’t do that, so that’s me.”

Meaningful Activity

Universal self-care requisites are present in all human beings and are those things related to life processes. They include one’s ability to maintain a sufficient intake of air, water and food, prevent hazards, and to achieve of balance of activity and rest (Orem, 1995). All participants discussed the need to take part in some type of meaningful activity. Some discussed the role employment plays in their ability to remain healthy. Martha talked about her years of hard work holding down two jobs simultaneously; “I did a lot of hard work … I worked for X and them I came home … (we) had a laundry store and after supper I would go over there and clean it up.” Betty discussed the importance of activity in her life, “I go to Bible study … I go to meetings for the women’s society and I go to the circle. I volunteer at the lighthouse … its fun and you are doing something worthwhile.” Alfred stated, “I go to work. I go fishing. I do what I want. I have a garden. I stay busy.” Many of the participants discussed how important doing something they enjoyed contributed to their sense of health and well-being and contributed meaning to their lives. Willie discussed being active and doing the things that keep him healthy and active. “Mentally I feel like I can do them.” Francis noted, “I have to have something to get me up out of bed in the morning. I have a Monday card group … Tuesday night we go down to the beach and play cards … my biggest thing that I do is my tennis.” Three themes emerged across interviews relating to barriers to healthy ageing.

Giving In and Giving Up

Throughout the majority of interviews the one barrier identified as a concern was doing whatever they could to keep going and not to give up. Dottie stated, “I want to do it, but sometimes a lazy streak comes in there every once in a while. I like to do things but, sometimes I just want to vegetate and do nothing. It’s all about attitude.” Mary stated “I don’t mind working. It gets me out of the house. It gets me with people all day long. I told the kids I might retire when I’m 85, but I have to have something to do. I have to have something else.” A narrower social world is not satisfactory for Mary. Mary also stated, “I think you just have to get up and go or sit down and die. Nobody pushes you to do anything at my age and I think people would say not to do this or that, but that is the wrong attitude. You have to get up and go.” Francis enjoyed the fact that, “I don’t have to worry about another soul, except I have a son. But other than that I don’t have anybody saying you can’t do this or you can’t do that.” The ability of these participants to not give in or give up supported the Orem universal self-care requisites found in every human being across all stages of life, and involved with maintenance of both structure and function and general well-being (Orem, 1995). Willie summarizes this well by saying “I do think as you go through life anyway you have to have the fortitude or whatever, you have to be willing to get up and go again if something knocks you down, I learned that early on to get back up and keep going.”

Ageing Process

Several of the participants discussed the important of living with the deleterious effects of ageing and compensatory medical treatment. According to Orem (1995), health deviations and resulting self-care requisites include not only effectively carrying out medically prescribed treatments as well as learning to live with the effects of illness and medical treatment. Tom stated, “I had a heart valve replacement and a stroke and while I got over it, I consequently had several bouts of congestive heart failure and dehydration put me in the hospital. I think that becoming very aware of how easy it is to get into trouble is probably one of the things that has made me able to live longer because I feel better than I had felt in a long time. I eat better; I watch my fluid because I have kidney failure, not serious so I would say that the period of illness that I had made me aware of what I needed to do to take care of myself and that probably has helped in getting me to last longer.” Willie stated, “that being a natural chemistry that comes from..."
the fact that my mother, she lived till she was 86 years old, so part of it is inheritance, I think. And we are fortunately able to afford the drugs that the doctors prescribe for us, and I honestly believe that chemistry is keeping all of us alive a lot longer than our previous generations because we take medicines we are suppose to and that wards off the other things that might come about".

Dottie stated, "My body betrays me sometimes, I guess by 81, you kind of slow down. You do just have to stay with it. If you don’t stay with it, boy you are lost". Martha noted, "I’ve got a bad leg, and it doesn’t keep me from walking but it keeps me from walking far." Although many of the participants spoke about slowing down with age or having medical conditions which require medications and physician treatment, they stressed the need to persevere.

**Environmental Limitations**

Many of the participants talked about the importance of their environment to remaining active and healthy and how environmental limitations can decrease one’s quality of life. Tom was very articulate about the need for environmental modifications that support the lifestyles of the elderly. "To be active, means to be able to travel and do things. Unfortunately, when we travel, the people who claim to have handicap rooms have had the worst advice in the world. Numerous times I have been placed in situations where you can’t sit down in the shower or if you get in the tub, you can’t get out. Carpets are too deep for wheelchairs or electric carts to get through. Outlets are too low and there are never enough of them. If you have a clock and a light by the bed they take up all the outlets usually and you need a Continuous Positive Airway Pressure (CPAP) machine, humidifier and so forth. When they talk about handicap they really have no idea." Betty stated, "I am blessed to be living in this environment. Everything is so close, food is next door and there are no stairs." Similarly, Martha stated, "Everything is convenient. I don’t have to climb stairs; there is room for my walker." Ann stated: "I cannot walk in the neighborhood because I am afraid of the dogs."

The themes and facilitators revealed in this research coincide with the Healthy People 2020 (2012) leading health indicators. The importance of taking care of self through medication and health care practitioner interventions was evidenced in the group interviewed. The positive attitude suggests support of previous research reporting longevity increased by positive perceptions of ageing (Levy *et al.*, 2002). Meaningful activity, or going and doing something meaningful (Bryant *et al.*, 2001) does contribute and is important to healthy ageing.

**Conclusions and Further Research**

The aim of this study was to examine the perceptions of the elderly on the facilitators and barriers of healthy ageing. Interviews with seven women and three men revealed both. While the sample size was small (n = 10) and represented a limited segment of the population in one area of the United States, several themes were identified. Thematic analysis of the guided interviews revealed facilitators and barriers to healthy ageing. The facilitator themes were; Taking Care of Self, Positive Attitude, and Meaningful Activity. Barriers to healthy ageing were; Giving In and Giving Up, Ageing Process, and Environmental Limitations. These themes build foundational evidence for future research related to healthy ageing.

This research informs nursing practice, may influence public policy, and facilitate development of nursing curriculum in the self-care and basic conditioning factors of older adults. Specifically, this research provided credible evidence necessitating future investigation regarding the self care barriers experienced by elders and heard through their voices. Basic conditioning factors related to environmental obstacles in healthy ageing were significant. Findings will be shared with policy makers and agencies supportive of community self care.

Further research is needed to identify interventions tailored to fostering healthy ageing. Nursing interventions in the educative-supportive realm must include consideration of the individual, family, environment and health care system. Nursing care must include the recognition and assessment of self-care capabilities, the need for positive attitude and meaningful activities.

Public policies related to healthy ageing need to be addressed. As noted in the research and heard through the voices of the participants, the buildings and environments alleged to be in support of healthy ageing fail in many areas. In the United States, the Americans with Disabilities Act of 1990 requires that all public buildings meet code to allow for individuals with mobility limitations (Americans with Disabilities Act of 1990). Yet, these interviews revealed severe limitations for individuals in wheelchairs to go to public spaces such as hotels and restaurants Creating public policy and implementing changes to follow the ADA guidelines are needed in all public places to facilitate health ageing. Further research is needed to identify methods to foster public policies and creation of supportive environments.

Orem’s (1995) Self-Care Deficit Nursing Theory (SCDNT) can provide the framework for further investigation and development of nursing interventions. According to the SCDNT,
individuals will perform activities necessary to care for themselves. Persons have the ability for deliberate self-care, a goal-directed activity that is learned. The capacity to care for self is self-care agency (SCA). Interventions that will enhance SCA will facilitate healthy ageing and ameliorate barriers.

References

DeSantis, L., and Ugarriza, D. N. (2000). ‘The concept of theme as used in qualitative nursing research’, Western Journal of Nursing Research, 22, 351-373.
The purpose of this planned study is to develop and evaluate The Nutrition Self Care Inventory (NSCI). The NSCI is a pilot tool designed to assist the advanced practice nurse in the development of nurse and patient co-created individualized meal plans for clients who are obese and overweight.

Obesity and overweight are the precursors to metabolic syndrome, diabetes and cardiovascular disease. Metabolic syndrome is a constellation of risk factors including: obesity, elevated cholesterol, elevated blood pressure, elevated blood sugar and/or increased waist circumference and can be considered the precursors to these diseases. Obesity is a national and global concern.

The Self-Care Deficit Nursing Theory frames this study. Orem’s theory illustrates the person’s need to identify with normal human behavior and desires. Normalcy is a central theme of the theory (Orem, 2001). Young and middle age adults often desire to lose weight. To be overweight is considered to be in the outside parameters of normalcy, while overweight is found in the majority of adults in the United States. The strong influence of social dependency and the need to establish interpersonal relationships can affect an individual’s behavior while searching for this normalcy.

Theoretical constructs will be measured by the use of a tool, designed to be used in a measurement model. In the development of this tool, the use of a concept tree (Tappen, 2011) allowed for the organization of thoughts and principals for mapping using Orem’s Theory of Self Care Deficit Nursing concepts.

**Key words:** concept tree, nutrition, obesity, self-care deficit nursing theory, self-care tool.

**Introduction**

A concept tree was created to provide the theoretical basis for the development of a tool to establish the perceived nutritional status of participants diagnosed with obesity and overweight. This paper is important to the practices and theory of self-care deficit nursing and its further development of health specific tools. Construction of this tool will aid the advanced practice nurse in the plan and creation of the individual’s weight loss goals.

**Theoretical Framework**

Theoretical constructs can be measured by the use of a tool, designed to be used in a measurement model. The use of a concept tree (Tappen, 2011) allowed for the organization of thoughts and principals for mapping using Orem’s Theory of Self Care Deficit Nursing (Figure 1). A concept tree is a heuristic, a guide to thinking about and articulating the theoretical foundation using a tree diagram for clarity.

**Concepts**

Orem’s theory illustrates the person’s need to identify with normal human behavior and desires; Normalcy is a central theme of the theory (Orem, 2001).

Young and middle age adults often desire to lose weight. To be overweight is considered to be in the outside parameters of normalcy, while overweight is found in the majority of adults in the United States (ADA, 2011). Prevention of adverse health events is basic to the construct of health care plans. The strong influence of social dependency and the need to establish interpersonal relationships can affect an individual’s behavior while searching for this normalcy. It is considered easier to conform to the normal practices than to behave outside the normal.

**Propositions**

The desire to be normal often outweighs the practical application of one’s actions. Decision making regarding food choices not only impacts the individual but also the persons with whom

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that individual has a relationship. The relationship one has in the family social unit is interdependent on the choices and outcomes discovered in the co-created meal plan. The choices made for meal planning need to be acceptable to those involved, including family acceptance of the plan. Guidance and counseling from the nurse can support these decisions which will reflect the healthy behaviors needed for change (Hartweg & Fleck, 2010).

**Dimensions**

The individual coming for healthcare and counseling is part of the decision making for the healthcare plan. Obesity, metabolic syndrome, diabetes and heart disease are often the precursors to the healthcare appointment. The desire for change is established and the medication, food and activity plan is discussed. Food preferences and family cultures are entered into the construction, with emphasis on carbohydrate control and counting. This is done by the use of a food guide that allows choices for familiar and favorite foods to be counted. The ongoing relationship of the individual and the nurse will enhance the strength of the choices and identify the obstacles incurred as the barriers to the co-created plan. Ongoing communication through the office visit will enhance evaluation of the desired outcome; weight loss.

**Methodology**

**Tool Development**

The use of a tool for information gathering is helpful to the advanced practice nurse. Time constraints and healthcare reimbursements often curtail the ideal situation for counseling. Quick and useful tools can be used to assist the nurse in assessment and planning at the healthcare appointment. Individualization of meal planning allows the person to enjoy their typical food choices while counting their budgeted carbohydrate intake. Individualized meal planning was studied by Fleck (2007). Participants were
counseled regarding controlled carbohydrate meal planning in the quest to lose weight.

The Self-as-Carer Inventory (Geden & Taylor, 1991) was used to assist in the perceived self-care of these participants and the consideration of disease specific items (Table 1). Further research is considered to explore this counseling intervention after tool development for assessing nutrition specific information.

A review of current nutrition tools led to the discovery and lack of those published in the nursing literature. Paxton and Strycker, et al (2011) found a lack of valid measurements related to health behaviors in primary care. Dietary assessment tools are often found to be costly and burdensome for the evaluation of nutrition self behaviors. A simple dietary pattern tool was developed, Starting the Conversation (STC), as a

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Table 1 Self-As-Carer Inventory

Instructions: Below are a number of statements about caring for yourself. (The word “self-care” is used a lot. It means those things you do for yourself to maintain life, health, and well-being.)

Use a #2 pencil to mark the number that best describes how you take care of yourself. Marking the number “6” means the statement is a very accurate statement about how you care for yourself; marking number “1” means that the statement is not at all accurate.

<table>
<thead>
<tr>
<th></th>
<th>Very Inaccurate</th>
<th>Very Accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My joints are flexible enough for me to take care of myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>2. I think about health information in choosing solutions to problems in caring for myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>3. The way I take care of myself fits in well with my family life</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>4. I try out new ways to take care of myself based on information from experts</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>5. My self-care routine fits in with other parts of my life</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>6. I watch for signs that tell me if I am taking good care of myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>7. I use different ways of thinking based on the kind of self-care problem I have</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>8. I watch for things around me that will make a difference in how I take care of myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>9. I am strong enough for the physical work of caring for myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>10. I pay attention to signs telling me to change the way I care for myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>11. I plan my self-care by how much energy I have</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>12. I am aware of things around me that affect how I take care of myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>13. I have the necessary skills to care for myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>14. I stick to my decisions about caring for myself even when I run into setbacks or problems</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>15. I know what I need to take care of myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>16. If the doctor tells me to do something, I do it</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>17. I take care of myself because my health is important to me</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>18. I remember health care information about what I should do for myself</td>
<td>1 2 3 4 5 6</td>
<td></td>
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<td></td>
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<td>---</td>
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</tr>
<tr>
<td>19. I know how much energy I need to take care of myself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20. To make a decision about my care, I look at both sides of my choices</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21. It matters to me that I care for myself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22. I know when I have the ability to obtain my nutritional supps and food</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>23. I know where to find good information I need to help me take care of myself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24. I think about how all the things I do fit together to help me reach my health goals</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25. I have the ability to plan my nutritional needs</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26. I fit new self-care actions into what I already do</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>27. My hearing and vision are good enough to allow me to care for myself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28. The way I take care of myself fits in with what I consider important in my life</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>29. I do what I know is best in taking care of myself even though I may not like it</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>30. I do my self-care in several different ways</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>31. I follow through with decisions I make about caring for myself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>32. I have a set routine for caring for myself including meal planning</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>33. I think about how decisions I make will affect my health and self-care</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>34. I knowingly spend my energies on the most important self-care tasks</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>35. I use information from authorities to help me take better care of myself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>36. I have the ability to prepare my meals</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>37. I think about several choices before I make a decision about my self-care</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>38. I know why I make the choices I do in order to care for myself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>39. I know which actions to do first to best accomplish my self-care</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>40. Once I begin to care for myself in a certain way, I check to see if it is working</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. Using a scale of 1 to 6, how would you rate your health at this moment?  
   1  2  3  4  5  6

2. Using a scale of 1 to 6, how would you rate your own health in general?  
   1  2  3  4  5  6

3. Using a scale of 1 to 6, how much of your own care are you providing?  
   1  2  3  4  5  6
### Personal Information

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Current living arrangement</td>
<td></td>
</tr>
<tr>
<td>alone</td>
<td>with family in the same house</td>
</tr>
<tr>
<td>Ethnic group</td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>Asian/Pacific Islander</td>
</tr>
<tr>
<td>Who assists you with your self-care?</td>
<td></td>
</tr>
<tr>
<td>no one</td>
<td>me</td>
</tr>
<tr>
<td>Are you currently taking any prescription medications?</td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

**Examples include:**
1. Who does your grocery shopping?
2. Do you have a grocery budget?
3. Who does the cooking?
4. Do you prepare meals?
5. Do you frequent take-out food?
6. Do you eat three meals a day?

**Last time seen by a health care professional (MD, nurse, Chiropractor, etc.)?**

Month    Year

If yes, please list the problem.

List your diagnoses, if known, and length of time you have had this health problem.
means for cost effective and food group specific research focus (Table 2). This eight item tool distinctly measures different aspects of eating behavior. Item scores are added to create a summary score (range 0-16), with lower summary scores reflecting a more healthful diet. STC items were moderately intercorrelated. Individual items correlated significantly with the summary score (r=0.39-0.59, p<0.05). Overall the STC tool identified healthful and unhealthful dietary behaviors in a diverse sample.

Careful consideration of these previous tools and their significance in advanced nursing practice gave an impetus to the development of The Nutrition Self Care Inventory (NSCI) (Table 3). While reliable and valid tools are apparent for nutrition and perceived self-care practice, no tool was identified to measure both specific nutrition and perceived self-care practices. The NCSI was then developed to assist the advanced practice nurse with the gathering of information to assist in the co-creation of a meal plan. This co-creation of food choices is essential to the weight loss plan.

The NCSI was designed to permit individuals to express their perceived capacity in nutrition decision making. The NCSI is a ten item Likert type questionnaire. Since a general measure of nutrition self care is desired, the tool includes instructions for respondents to identify their perceived ability to make decisions regarding their nutrition practices. The scores range from 30 - 10 with higher scores indicating higher perceived nutrition self care; things they feel

<table>
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<tr>
<th>Table 2</th>
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| **Starting The Conversation: Diet**  
(Scale developed by: the Center for Health Promotion and Disease Prevention, University of North Carolina at Chapel Hill, and North Carolina Prevention Partners) |
| **Over the past few months:** |
| **1. How many times a week did you eat fast food meals or snacks?** |
| Less than 1 time |
| 1-3 times |
| 4 or more times |
| □ 0 |
| □ 1 |
| □ 2 |
| **2. How many servings of fruit did you eat each day?** |
| 5 or more |
| 3-4 |
| 2 or less |
| □ 0 |
| □ 1 |
| □ 2 |
| **3. How many servings of vegetables did you eat each day?** |
| 5 or more |
| 3-4 |
| 2 or less |
| □ 0 |
| □ 1 |
| □ 2 |
| **4. How many regular sodas or glasses of sweet tea did you drink each day?** |
| Less than 1 |
| 1-2 |
| 3 or more |
| □ 0 |
| □ 1 |
| □ 2 |
| **5. How many times a week did you eat beans (like pinto or black beans), chicken, or fish?** |
| 3 or more times |
| 1-2 times |
| Less than 1 time |
| □ 0 |
| □ 1 |
| □ 2 |
| **6. How many times a week did you eat regular snack chips or crackers (not low-fat)?** |
| 1 time or less |
| 2-3 times |
| 4 or more times |
| □ 0 |
| □ 1 |
| □ 2 |
| **7. How many times a week did you eat desserts and other sweets (not the low-fat kind)?** |
| 1 time or less |
| 2-3 times |
| 4 or more times |
| □ 0 |
| □ 1 |
| □ 2 |
| **8. How much margarine, butter, or meat fat do you use to season vegetables or put on potatoes, bread, or corn?** |
| Very little |
| Some |
| A lot |
| □ 0 |
| □ 1 |
| □ 2 |

**SUMMARY SCORE** (sum of all items):
### Table 3 Nutrition Self Care Inventory

Last 4 digits of your social security number

soc sec#

#### Nutrition Self Care Inventory

Instructions: Below are a number of statements about nutrition practices related to your life. They are related to caring about yourself to maintain life, health and well being.

Use a #2 pencil to mark the number that best describes how you see your ability to care for yourself. Marking the number “3” means you are very confident; marking the number “1” means you are not very confident.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel confident in my ability to integrate healthy lifestyle choices into my daily schedule</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I feel confident in my ability to follow a healthy meal plan</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I feel confident in my ability to follow a healthy activity schedule</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I feel confident in my ability to shop for healthy food choices</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I feel confident in my ability to manage my food budget so that I can purchase healthy food choices</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I feel confident in my ability to identify the protein, fat and carbohydrate food choices</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I feel confident in my ability to calculate carbohydrate grams per serving</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. I feel confident in my ability to make healthy food choices while eating out</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. I feel confident in my ability to manage family obstacles to healthy food choices</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. I feel confident in my ability to be satisfied with my healthy lifestyle choices</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Demographics

<table>
<thead>
<tr>
<th>Vital signs</th>
<th>BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>____________</td>
<td>____________</td>
</tr>
</tbody>
</table>

Age: ______

Gender: Male____  Female____

Race: Black_____ White_____ Hispanic_____ Other_____

Living arrangements: Self_____ Family_____ Roommate_____

Occupation: ________________________ Hours worked per week __________________
confident in their ability to do related to their nutrition practices.

**Reliability and Validity**

Readability and clarity will be examined by administering the tool to 10 English speaking adults attending a family practice clinic. These adults will be identified by the use of ICD 9 codes to include obesity, hypertension, diabetes or metabolic syndrome.

**Stability**

Reliability will be concerned with consistency, repeatability, stability and homogeneity. Stability will be measured by comparison of one testing time to another testing time. Interater reliability is done by comparison of the ratings produced by two examiners at the same time with the same subjects. This will be implemented by two different raters with the same subjects one week apart. The coding is done by calculation of a score from 1-3 on each item of a 10 item questionnaire. Assumed stability of the phenomenon of nutrition self-care practice is considered. Pearson’s correlation coefficient will be calculated.

**Reliability**

The practice effect, described above, often prevents researchers from accurate measures of the phenomenon. The practice effect considers a test of cognition or physical ability. In some instances the person actually practices what the researcher has asked them to do and performs better on the second testing (Tappen, 2011). The use of parallel forms of measure is not appropriate for this tool. A split half technique of comparing the first half of the measure to the second half of the measure can be used. The odd and even items would be compared. This measure is not chosen to evaluate this tool. Cronbach’s alpha will be calculated. It produces the correlations of individual items with a total score and estimates of the effect of removing an item (Tappen, 2011). Cronbach’s alpha is a measure of internal consistency or homogeneity. A Cronbach’s alpha score of .70 is acceptable for new measures.

Reliability of the NSCI will be studied using the test retest procedure. Administration of the NSCI will be given to a group of 100 English speaking adults. Consistency of responses will be compared on two separate measurement occasions under standard conditions (Waltz, 2010). The extent to which the two sets of scores are correlated at the interval level will be determined by the Pearson coefficient.

**Content validity**

Validity is defined as the degree to which evidence and theory support the interpretation for its intended purpose (Tappen, 2011). Face validity would reflect the areas that the items look appropriate. The items reflect nutrition issues and behaviors. Expert review will be carried out as well. Upon reanalysis by an expert panel (Family Nurse Practitioners) content validity will be established. The extent to which the items sampled for inclusion on the tool adequately represent the content and relevance of the desired information will be measured (Waltz, 2010). Three expert practitioners will rate the tool and an alpha coefficient will be employed as the index of content validity. Collection of data will provide evidence of the nutrition behaviors indicating the need for nursing. Gaps in the behavior of healthy food choices and practices can indicate the need for education.

Factor analysis can indicate a strategy of looking at individual items and their ability to measure in a cluster (Tappen, 2011). The basic sample size requirement is 5-10 cases per item to be factored. If the factors generated are congruent with the original theoretical mapping presented in the concept tree, they support the validity of the measure. The items might be subcatorized; behaviors in ability to calculate the carbohydrate counting, support and family dynamics in food choices and preparation and the financial ability to purchase food items. It is planned to have 100 participants for the needed factor analysis of 10 items.

**Construct validity**

Construct validity is concerned with how a measure relates to other measures (Tappen, 2010). Multitrait-multimethod (MTMM) is an extension of construct validity. It is a set of comparisons of data and measurement methods that are like (mono) the one being tested or unlike (hetero) the one being tested (Tappen, 2011). A matrix will be designed to show the correlations generated by these comparisons.

Comparison measure of the information will be generated through traditional collection methods. The Advanced practice nurse will ask the usual intake questions and compare the self reported answers of the participant. Theoretical concepts of the two measures indicate the self reported information and the information generated by the nurse. Correlation of the two scales will give an indication of measure for similar concepts; nutrition self care (Tappen, 2011).
**Criterion validity**

The ability of the measure to predict the outcome of interest is called criterion validity. It is concerned with concurrent or predictive situations (Tappen, 2011). Scale predictions might be measured for choices. Meal planning is a choice and predictive choices will influence outcomes. Rice or green beans will have different outcomes on the glycemic index but may be very culturally influenced.

**Sensitivity and specificity**

How accurately a measure characterizes or diagnoses people is described by its sensitivity. Is the measure accurately reflecting the positive correlation of food choices and self care competence? Confirmatory factor analysis will be used to identify the construct validity.

**Conclusion**

The use of research tools to further develop and study nursing practice is imperative to the expanding base of nursing knowledge. Advanced practice nurses are the catalyst to change in healthcare practice that often requires less time and less money to accomplish more complex issues. Tool development in the areas of obesity, weight loss and metabolic disorders will serve this population of patients in cost effective individualized practice to obtain healthcare outcomes.

**References**


Application of the Self Care Deficit Nursing Theory to the Care of Children with Special Health Care Needs in the School Setting

Rebecca Green, RN, MSN, DNS

Abstract

The purpose of this article is to describe how practicing school nurses can apply the basic tenets of Orem’s Self-Care Deficit Nursing Theory to children with special health care needs and demonstrate its applicability in the school setting. Children with disability are identified as individual members of a vulnerable population whose status is considered within a framework of self-care.

Keywords: Orem, children with special health care needs, self-care, school health

Introduction

The Individuals with Disabilities Educational Act (IDEA) was passed in 1975 to insure a “free and appropriate education” for children with disabilities (Box 1). Section 504 of the Rehabilitation Act of 1973 stipulates that “schools must make ‘reasonable accommodations’ for students with disabilities so that they can participate in educational programs provided to other students” (Rehabilitation Act, 1973). In guaranteeing all children the right to a free and appropriate education, the United States has created a society in which all people, regardless of ability, are mainstreamed into everyday life from the moment they reach school age. This mainstreaming has drawn attention to the challenges faced by this vulnerable segment of our population. In addition, it has created an opportunity for the special health care needs (Box 2) of these children to be addressed openly and creatively.

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Box 1. Disability

*Disability:*

Refers to a child evaluated as having mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as emotional disturbance), an orthopedic impairment, autism, traumatic brain injury, and other health impairment, a specific learning disability, or deaf-blindness and who needs special education and related services


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Box 2. Children with special care needs

*Children with special care needs*

Children with special care needs are identified as those who “have a parent-reported medical, behavioral, or other health condition that has lasted or is expected to last 12 months or longer and that has resulted in functional limitations and/or elevated use of or need for medical care, mental health or educational services, specialized therapy, or prescription medications beyond what is usual for other children of the same age”

(CDC, 2009, Children with special health care needs section, para. 1)
The school nurse is uniquely situated to provide care and intervention that may assist children with disability/special health care needs to be more functional not only at school, but at home as well. For the purposes of this discussion, children with special health care needs and children with disability will be considered synonymous terms (as they are in the school setting).

School nurses often encounter students with a wide variety of conditions that require specialized care and attention. Orem’s theory, designed to promote individuals’ self-care, seems particularly well-suited for addressing the needs of individual disabled children in the school setting. Two case studies have been developed to illustrate the use of Orem’s theory in application to two individuals with self-care deficits.

**Purpose**

The purpose of this article is to establish the usefulness of Dorothea Orem’s Self-Care Deficit Theory in application to individuals from a specific vulnerable population, children with special health care needs. Two case studies will be presented as exemplars.

**Care of the Child with Disability in the School Setting**

Orem (2001) identified the profession of nursing within the context of a social contract, providing a service to those who need and seek service. This context creates an interpersonal dynamic of helping, dependent on the level of the individual’s ability to care for self; and may range from “taking care” as for infants, to “giving guidance, direction, and teaching” (Orem, 2001, p. 7). The interpersonal contact may be singular, episodic, or prolonged. Nursing’s purpose, according to Orem (2001), is to respond “to the inability of persons to provide continually for themselves the amount and quality of required self-care” (p. 20).

Nursing, according to Orem (2001), uses its unique powers, capabilities, and deliberate actions to attend to persons with self-care and dependent-care deficits and to “regulate the exercise and development of their powers for self-care or dependent-care” (p. 24). The theory itself seeks to explain the relationship between “the action capabilities of individuals and their demands for self-care or the care demands of children or adults who are their dependents” (p. 149); and proposes two patient variables: self-care agency and self-care demand (p. 149); and one nurse variable, nursing agency (p. 149).

Therapeutic self-care demand “is a structure of formulated and expressed courses of action or care measures that must be performed to generate action processes… to meet the regulatory goals of known existent and emerging self-care requisites of individuals” (p. 223). It is a concept constructed by nurses in specific time-place practice situations with individuals, and is based on investigation and judgment (p. 224).

Conditioning factors for self-care are internal and external factors that affect an individual’s ability to perform self-care. Some of these include age, gender, developmental state, socio-cultural orientation, resource availability, health care system factors, and environmental factors, among others. Children with special health care needs are diverse in terms of ethnicity, age, and income level, and have a range of functional ability. They often need access to “a wide range of medical and support services to maintain their physical health, mental and emotional health, and development” (United States Department of Health and Human Services Maternal and Child Health Bureau, 2008, para. 6); and their families are also likely to have unmet financial, emotional and social needs (United States Department of Health and Human Services Maternal and Child Health Bureau, 2008). These are factors that must be considered in implementing school nurse programs. Brooks, Kendall, Bunn, Bindler, & Bruya (2007) confirmed that the school nurse may be pivotal as the “only professional concerned with children’s wellbeing that traverses all the environments of the child, i.e. the home, the school and the wider community as well as connecting with the multi-sectoral nature of the service provision for young people” (p. 8). It is therefore appropriate to consider the application of Orem’s nursing theory to children with special health care needs in the school setting.

**Application of Orem’s Theory to School Children with Special Health Care Needs**

Orem’s theory (2001) included statements about situations for which her theory was devised. One of these is “there are means within various sectors of society to bring persons in need of nursing into legitimate relations with nurses who can design, produce, and manage nursing care according to individuals’ existent and emerging needs for it” (p. 23). The school, as guarantor of a free and appropriate education for all, is one such “means” and “sector”. Interestingly, school nursing incorporates elements of both individual and multiperson care (families and populations) described in Orem’s theory (2001). For the purpose of this article, however, the role of the school nurse as a caregiver to children with special health care needs will be interpreted in the context of individual and family care.
Orem’s theory (2001) posits that health care requirements for patients with self-care deficits related to active disease or disability include 1) continuous care to regulate disease processes; 2) therapy to stabilize or protect functioning; 3) continuous evaluation of disease progress and recovery; 4) prevention of complications; 5) prompt treatment of complications; 6) general health maintenance and promotion; 6) assistance with coping; 7) rehabilitation; and 8) assistance in helping patient and family assume continuing self-care (p. 209).

Orem (2001) also described three types of nursing systems which are dependent on the level of care provided by the nurse (pp. 334-335). School nursing of disabled children may fall into any and all of the three categories: wholly compensatory, partly compensatory, and supportive educative. For example, tube feeding a child with cerebral palsy is considered wholly compensatory; setting up a nebulized albuterol treatment for a kindergartner is partly compensatory; and monitoring a seventh grader as he draws up and administers his own insulin is supportive educative.

School nurses manage a vast range of disability in the school setting. In applying Orem’s theory, it may be useful to select exemplar cases that reflect two very different types of students with special health care needs, and demonstrate the application of Orem’s theory to these specific cases. Exemplar one is the student with chronic asthma. Exemplar two is the student with moderate to severe cognitive developmental disability. Moreover, in the discussion, consideration will be given to the conditioning factors that influence individuals with special health care needs.

The Individuals

Case Study: Javon

Using diagnoses (obstacles that affect meeting universal self-care requisites) from Orem’s (2001) theory, a child with asthma could be considered to have a self-care deficit in maintenance of a sufficient intake of air, an “interference with the process of pulmonary ventilation” due to “diffuse narrowing of the bronchial tree” (pp. 497-498). Self-care demands for a child with asthma may include control of asthma symptoms and avoidance of specific asthma triggers. Children, because they are vulnerable in their dependency on adults, often have difficulty with self-care and have limited self-care agency. Nursing interventions are designed to establish self-care and meet therapeutic self-care demands by promoting self-care and self-care agency; and by providing nursing care and supporting family dependent-care when self-care is not possible.

Javon’s case (Figure 1) highlights the special challenges associated with providing care to vulnerable individuals, families, and populations whose self-care and dependent-care agency is affected by intersecting conditional factors. One nursing action recommended by Orem is assistance in helping patient and family assume continuing self-care (p. 209). In Javon’s case, ensuring continuous care was difficult. The school nurse was able to provide nursing care in the school clinic, but because she could not ensure that dependent-care would continue at home, there remained deficits in terms of stabilization/protection of functioning, continuous evaluation, prevention of complications, and prompt treatment of complications. In many cases of working with patients who have intersecting vulnerabilities and conditioning factors (in Javon’s case, vulnerabilities related to age, ability, ethnicity, income, insurance status, employment, and social position), there is no final or satisfactory resolution of self-care or dependent-care deficits. Addressing Javon’s self-care deficit and his family’s dependent-care deficit finally centered on assisting him and his family with coping strategies, and ongoing assistance through case management that involved both formal and informal networking among the family’s network of community resources and support. The school nurse assumed the informal role of case manager to establish ongoing communication among a variety of providers and access to a patchwork quilt of services.

Case Study: Elizabeth

Using diagnoses from Orem’s theory, a child with moderate to severe cognitive developmental disability could have self-care deficits in a number of categories; but could require, for example, “providing care associated with bowel evacuation and urination” related to problems with “care performance”; as well as “promoting normalcy” related to “impairments of communication, reasoning, or memory” or “diminished powers to manage and care for self” (pp. 512-513). In these circumstances, nursing actions will be directed toward addressing the therapeutic self-care demand and meeting the universal self-care requisites; and promoting dependent-care on the familial level. The eventual goal is to promote the child’s self-care independence. It is not uncommon for children with moderate to severe cognitive developmental disability to have physical developmental delays (Siskin Institute, n.d.), such as bowel and bladder elimination delays. The school setting provides an excellent opportunity.
for the nurse to foster independence and promote self-care agency by teaching self-care in toileting by teaching independent toileting hygiene and implementing a schedule for toileting, and teaching recognition of physical toileting cues.

Elizabeth, a 12-year-old middle-schooler, fit this description (Figure 2). The goal in a case like Elizabeth’s is for the child to reach independence in elimination self-care, and for the family to eliminate provision of dependent-care in the area of elimination. Elizabeth developed complete independence in toileting hygiene and bowel continence. Conditioning factors were such that the requisite for provision of self-care associated with elimination processes and elements was achieved and self-care agency was actualized.

**Discussion and Conclusion**

Orem’s Self-Care Deficit Theory is extremely useful for planning and caring for children with special health care needs in the school setting.
It provides a practical framework for identifying problems and promoting independence. The school environment has long been a primary cultural milieu for facilitating a child’s transition to adulthood and fostering independence. It is therefore particularly relevant to utilize a congruent philosophy in school nursing. Orem’s theory is designed to identify self-care deficits and promote self-care of individuals. Children with special health care needs and their families may have many self-care demands that can be successfully addressed using Orem’s theory as a framework, fostering their capacity and transition from dependent-care to self-care in as many areas as possible. The two case studies in this article demonstrate the use of the most basic tenets of Orem’s theory in the school setting for individual members of a vulnerable population, children with special health care needs. Practicing school nurses can use these as exemplars for beginning to adopt a framework for integrating Orem’s theory into daily practice.
Implications for Future

As in THE CASE OF Jarvon, it is sometimes necessary for providers and health care and educational systems to assume the dependent-care of children and families who have limited self-care and dependent-care agency due to internal and external conditioning factors. Even in cases like Elizabeth’s, as she transitions to adulthood, her family may require resources from the community to promote her independence. In such circumstances, it becomes necessary to consider the aggregate, children with disability, within the larger context of the community; and indeed, to consider the community itself as a potential unit of service. At this level, political action and client advocacy may be the most powerful nursing actions to facilitate self-care agency and dependent-care agency of vulnerable patients and populations. It is at this level that future exploration into the application of Orem’s theory when dealing with this vulnerable population at the larger community level is warranted.

References


Individuals with Disabilities Education Improvement Act (2004). H.R. 1350 § 602 [Definitions].


Abstract

Background: Hepatitis B is one of the most significant diseases affecting the Asian population. Many people have insufficient knowledge about hepatitis. Its treatment has many limitations. Self-care of the patients plays an important role in improving their health and preventing the spreading of HBV to others.

Purpose: The aims of this study were to determine the levels of self-care knowledge in patients with hepatitis B and to identify the background characteristics that affected their self-care knowledge.

Methodology: A descriptive comparative research was designed to survey self-care knowledge of hepatitis B patients. Two hundred and thirty patients with hepatitis B at two large hospitals in the South of Vietnam participated. Patients were interviewed through a questionnaire. Data were analyzed by Stata 10.0 program with descriptive statistics, chi-square and Fisher.

Results: Only 59.1 per cent of the interviewed patients had good self-care knowledge. The rest had moderate or minimal self-care knowledge. Among these, the proportion of patients who had good knowledge about diet, personal hygiene, and management and monitoring of hepatitis B was low. By contrast, there were high proportions of patients who had good knowledge about exercise and rest and prevention of the spreading of hepatitis B virus (HBV) to others. Self-care knowledge of hepatitis B patients was affected by educational level, occupation, and previous health education.

Conclusions: Education should be increased to improve the self-care knowledge of patients with hepatitis B. Emphasis should be placed on increasing knowledge about diet, personal hygiene, and management and monitoring of hepatitis B. Hepatitis B patients who are farmers, housewives and retired people with low education levels and without previous health education should be given priority.

Recommendation: Further studies are necessary to learn about the relationship between self-care knowledge and practices of hepatitis B patients.

Keywords: hepatitis B, patient, self-care knowledge, Vietnam.

Background and significance

Among hepatic viruses, hepatitis B virus (HBV) is the hepatic virus that is a great threat to the health of people worldwide (Bui, 2002). Two billion people worldwide have been infected with HBV. Among them, 350–400 million are chronic HBV carriers. Hepatitis B causes about 1 million deaths of HBV related liver failure, cirrhosis, and hepatocellular carcinoma (HCC) annually. There are about 50 million of new infected people each year. This disease has caused epidemics in parts of Asia and Africa; including Vietnam (World Health Organization [WHO], 2002). In Vietnam, hepatitis B is a significant health problem. The proportion of infected people is 10% to 15%. The number of infected people is continually increasing and becoming a burden for the country (Nguyen, 2004).

Literature Review

Hepatitis B

Hepatitis B is called a “silent infection” (Nguyen, 2004). There were many studies, carried out in many countries to survey the knowledge of people regarding hepatitis B. Most of those studies recognized that the knowledge of people, even hepatitis B patients, regarding the main sources of HBV transmission, treatment, and prevention is low (Thompson et al., 2006; Han, Griffith and Westphalen, 2007). Also, their knowledge related to self-care was low. According to the results of a national survey that were presented at Digestive Diseases Week conference in Washington in May 30, 2007, knowledge and practice of chronic hepatitis B (CHB) patients regarding monitoring and compliance was low. Survey results showed:

- Sixty-nine percent (208/301) of patients could not name any specific test conducted to monitor their chronic HBV infection.
- When asked about treatment goals, only 29% (87/301) of patients had set their own personal goals regarding treatment of their CHB either in addition to or in the absence of physician-directed treatment goals.
Among patients who had set lifestyle change goals, only 50% of patients planned to eat well, cease drinking alcohol and exercise, respectively. Only 55% of patients who had set medication compliance goals planned to accomplish the goals. Their knowledge about taking medication was also low. Fifty-four percent of participants were unsure why the drugs they were taking had been chosen. Therefore, they admitted frequently missing doses or taking them at the wrong time.

The results of this survey highlight a significant deficiency in patient understanding of hepatitis B treatment goals, testing and behaviors (Han, Griffith and Westphalen, 2007). One of the reasons may be lack of knowledge related to course of hepatitis B as well as self-care. Most authors suggested that appropriate health education programs should be developed for hepatitis B patients to improve their knowledge.

In Vietnam, almost previous hepatitis B related studies have focused on basic science or clinical research associated with hepatitis B. Few studies have surveyed self-care knowledge of hepatitis B patients. No one actually knows what the level of self-care knowledge in hepatitis B patients is. According to observation, Vietnamese hepatitis B patients have inadequate self-care. Many people do not know how to care for themselves even though there are health education programs for them. Patients’ self-care knowledge affects their self-care practice. And it affects to the quality of care and outcomes of treatment. Therefore, the study of self-care knowledge of hepatitis B patients in Vietnam is essential to the country’s health. Such studies will provide a base for developing and implementing health education programs for hepatitis B patients.

**Theoretical Framework**

The researcher selected Orem’s Self-Care Deficit Nursing Theory (SCDNT) (Orem, 2001) as the most suitable theoretical framework for this study. This theory describes why and how people care for themselves (as cited in Taylor, 2006). It emphasizes self-care while this study surveyed self-care knowledge of hepatitis B patients. Self-care is the practice of activities that maturing and mature persons initiate and perform, within time frames, on their own behalf in the interest of maintaining life, healthful functioning, continuing personal development and well-being through meeting known requisites for functional and developmental regulation (Orem, 2001). The SCDNT has a fully explicated theoretical framework. This study studied the concepts of self-care agency and self-care requisites.

Each hepatitis B patient plays the role of self-care agent. According to Orem’s explanation, patients must gather enough knowledge related to hepatitis B in order to care for themselves well. They can obtain this knowledge from books and newspapers, nurse or doctor, and health education programs. Self-care requisites are the needs of daily living of hepatitis B patients. They are appropriate diet, good personal hygiene, balance between exercise and rest and understanding about management and monitoring of their hepatitis B. In addition, Orem suggested that self-care is not only care for oneself, but care for people around them (Orem, 2001) Care for others of hepatitis B patients is prevention of the spread of HBV to their family, friends and surrounding people. If a patient’s self-care agency does not meet universal self-care requisites demands, a self-care deficit will exist. Then, nursing is needed to assist individuals in the provision of self-care (as cited in Foster and Bennett, 2002). But first, nurses should diagnose deficits in self-care knowledge and factors that affect to hepatitis B patient’s self-care knowledge. Then, they can provide more effective education for hepatitis B patients.

**Purpose of the study**

This study described the self-care knowledge of hepatitis B patients. The specific aim of the study was to determine the levels of self-care knowledge in patients with hepatitis B and to identify background characteristics that affect their self-care knowledge.

**Methods**

A descriptive comparative research was designed for this study.

Data were collected by a questionnaire. The questionnaire was based on a review of literature related to self-care of patients with hepatitis B and Orem’s Self-Care Deficit Nursing Theory (SCDNT). The questionnaire was reviewed by two medical specialists at Tropical Diseases Hospital and one nursing expert at Choray Hospital. The questionnaire includes two parts: background information and self-care knowledge. The part about self-care knowledge includes knowledge about diet, personal hygiene, exercise and rest, management and monitoring of hepatitis B, and prevention of the spreading of HBV to others. There was a total of 30 questions. A pilot study was carried out to test this questionnaire.

This study was conducted at 2 large public hospitals in Vietnam over one month’s time. Two hundred and thirty patients with hepatitis B composed the convenience sample. They were
adults with 18 years of age with medical orders at the time of survey. They were diagnosed with hepatitis B by physicians. Subjects who met the eligibility criteria were explained the purpose of the study, the survey process and benefits. Upon agreeing to join study, they were interviewed within 15-20 minutes.

Data were analyzed by using the Stata 10.0 program. Descriptive statistics were applied to analyze background characteristic of study sample. Then, chi-square and Fisher were used to identify background characteristics that affected hepatitis B patient’s self-care knowledge.

Findings

The findings were categorized into 3 types: background characteristics, the levels of self-care knowledge, and background characteristics that affect to self-care knowledge.

Background characteristics of study sample

A total of 230 patients with hepatitis B completed the survey. There were 114 inpatients (49.6%) and 116 outpatients (50.4). Of these, the majority of patients were male (59.1%), with a median age of 39.5 years. The youngest patient was 18 years old and the oldest patient was 82 years old. Over one-half of patients (55.2%) lived in urban areas (city, town). The general education level of patients was under high school (53%). Their occupation was fairly multiform. Among these, the majority of patients were farmers, housewives or retired people. Almost patients lived together with family or others (97%).

The majority of patients were diagnosed with hepatitis B over six months (83%). Seventy-two point six percent of participants were chronic hepatitis B patients at the time of the survey. Among interviewed patients, there were 58.7% of patients who had received health education about hepatitis B. The major source of information was health staff (69.6%). One patient was educated through seminars of pharmaceutical companies.

The levels of self-care knowledge

Fifty-nine point one percent of interviewed patients had high levels of self-care knowledge. The rest of interviewed patients had moderate and minimal self-care knowledge. This result is illustrated in Figure 1.

Hepatitis B patient’s self-care knowledge included knowledge about diet, personal hygiene, exercise and rest, management and monitoring of hepatitis B, and prevention of the spreading of HBV to others. The proportion of patients who had high knowledge about exercise and rest, and prevention of the spreading of HBV to others was high. The results are detailed in Table 1.

Background characteristics affect to self-care knowledge

Hepatitis B patient’s self-care knowledge was affected by education level, occupation, and previous health education (see Table 2). Patients’ knowledge regarding diet and personal hygiene was different between inpatients and outpatients. The results are shown in Figures 2 and 3.

![Figure 1: The levels of self-care knowledge of hepatitis B patients](image)

Table 1: Hepatitis B patient’s self-care knowledge

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>High level</th>
<th>Moderate level</th>
<th>Minimal level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet</td>
<td>51.3%</td>
<td>36.5%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Personal hygiene</td>
<td>34.8%</td>
<td>33%</td>
<td>32.2%</td>
</tr>
<tr>
<td>Exercise and rest</td>
<td>83%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>Management and monitoring of hepatitis B</td>
<td>34.4%</td>
<td>33%</td>
<td>32.6%</td>
</tr>
<tr>
<td>Prevention of the spreading of HBV to others</td>
<td>65.2%</td>
<td>22.6%</td>
<td>12.2%</td>
</tr>
</tbody>
</table>
Table 2: Background characteristics affect to the levels of self-care knowledge.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Self-care knowledge – n (%)</th>
<th>p-value</th>
<th>Total (N=186)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Moderate</td>
<td>Minimal</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under high school</td>
<td>44</td>
<td>40</td>
<td>6</td>
</tr>
<tr>
<td>High school</td>
<td>25</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>Above high school</td>
<td>41</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil servant, worker</td>
<td>45</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Farmer, housewife, retired people</td>
<td>30</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>Trader</td>
<td>20</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Others (Students, freelancer)</td>
<td>15</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Previous health education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>78</td>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>30</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

Figure 2: Knowledge regarding diet between inpatients and outpatients

Figure 3: Knowledge regarding personal hygiene between inpatients and outpatients
Levels of self-care

This study showed that hepatitis B patients' self-care knowledge was not high. Nearly one-half of hepatitis B patients had moderate or minimal self-care knowledge. We believe that hepatitis B patients cannot understand how to take care of themselves well with moderate or minimal self-care knowledge.

Eighty-three percent of hepatitis B patients had high levels of knowledge about exercise and rest. This finding meets our expectation. In fact, almost people know the important of exercise and rest for the health. Means of communications such as television, radio or newspaper often comment about the effect of appropriate exercise and rest for the health. Vietnamese are interested in information related to the health, particularly disease sufferers as hepatitis B patients. Therefore, their knowledge about appropriate exercise and rest was high.

The proportion of patients who had high levels of knowledge about prevention of the spreading of HBV to others was fairly high (65.2%). According to them, the best way to prevent the spreading of their disease to others was to avoid sharing personal items, avoid contact with blood, to use condom if intercourse and to get vaccination. So, almost patients correctly identified the main sources of HBV transmission such as sexual activity, and blood. However, there was a large number of patients who didn’t how to prevent the spreading of HBV. Vietnamese often live together with relatives. They, particularly people who live in rural or poverty often share personal items such as razor or nail clippers. Many patients thought that this sharing did not transmit HBV from them to their relatives. This opinion explains why the numbers of infected people still increase in Vietnam.

Knowledge about diet is paramount to hepatitis B patients because their diet directly affects outcomes of the treatment and care. Therefore, it is important to have correct diet for hepatitis B patients. However, there were only one-half of patients who had high levels of knowledge about diet. The majority of interviewed patients understood that patients with hepatitis B have to stop alcohol, smoking and strong coffee or strong tea. Conversely, nearly one-half of patients had limited knowledge about consumption of protein, fat, water and salt. Most patients were too careful about their disease. They followed a strict regimen. They omitted many foods. This is particularly common in the Vietnamese when they experience disease.

Besides knowledge about diet, knowledge about management and monitoring of hepatitis B is also important knowledge of hepatitis B patients. However, we found two-third of patients who had moderate or minimal levels of knowledge. This knowledge is really needed for patients with acute or chronic hepatitis B. If they have high knowledge, they can manage their hepatitis B to prevent complications (cirrhosis or liver cancer). Patients with acute and chronic hepatitis B account for nearly ninety percent in this study. Although almost hepatitis B patients had adequate awareness of the need to abide by physician’s orders about using medicine and follow-up examination, many had poor awareness about monitoring their hepatitis B. They did not know what signs of hepatitis B they needed to notice. In fact, physicians and nurses rarely guide patients carefully to monitor signs and symptoms of hepatitis B. So, our results in knowledge about management and monitoring of hepatitis B reflected the reality in Vietnam. This result also shows that the voice of medical workers, especially doctors and nurses, is valued by hepatitis B patients. Thus, if doctors or nurses frequently provide self-care knowledge for hepatitis B patients, their knowledge will increase significantly.

Our study indicated that hepatitis B patients also lacked knowledge about personal hygiene. There were a large number of patients who stated that hepatitis B patients need to reduce or omit personal hygiene, particularly baths and shampoos. Moreover, almost patients didn’t know how to care for their skin to decrease jaundice or itching. In fact, previous health education programs rarely addressed these points.

Background characteristics effect on self-care knowledge

In our study, we found that various background characteristics influenced self-care knowledge of hepatitis B patients. The first, there were significant differences in the levels of self-care knowledge between education levels. Patients with better education were more likely to have high self-care knowledge. This is not surprising as patients with better education are more likely to have read or heard about HBV infection in schools or in the mass media. Besides, patients with better education were more likely to understand the complexity of various aspects of HBV infection. This finding is consistent with the results of study that was carried out in Singapore (Wai et al., 2005). According to this study, patients with better education were more likely to have a high knowledge score. Although that study did not survey self-care knowledge, it surveyed knowledge about transmission, and management of HBV infection. In our study, self-care knowledge included knowledge about management of hepatitis B and prevention of the spreading of HBV to others. The second, there were also significant
differences between occupations. Patients who were civil servants or workers were more likely to have high self-care knowledge than patients who were farmers, housewives, or retired. And finally, patients who received previous health education had more self-care knowledge than those who had not. The difference was significant.

Our study also revealed that patients’ knowledge regarding diet and personal hygiene was significantly influenced by the type of treatment - such as inpatient treatment or outpatient treatment. Inpatients were significantly more knowledgeable about diet than outpatients. By contrast, inpatients were less likely to have sufficient knowledge about personal hygiene than outpatients. In Vietnam, during hospitalization, hepatitis B inpatients eat meals that are provided by the nutrition department. We think that this factor influences knowledge about diet. So, inpatients understood diet more than outpatients. In the hospital, conditions are not conducive to personal hygiene. So, they did personal hygiene at the hospital less than at home. This practice could result in outpatients inpatients having less knowledge about personal hygiene less than outpatients.

According to Orem’s self-care theory, every hepatitis B patient exhibits self-care agency. Hepatitis B patient’s self-care agency is represented through self-care knowledge, attitude and behaviors. Self-care agency to engage in self-care is affected by basic conditioning factors such as gender, social-culture factors, health state, and resource adequacy (as cited in Taylor, 2006). So, the findings of this study about the effect of some background characteristics (education level, occupation, previous health education) on the levels of self-care knowledge are compatible with Orem’s self-care theory. Our study found that hepatitis B patients lacked self-care knowledge. We recommend that nurses pursue teaching hepatitis B patients regarding self-care. Orem (2001) said that when self-care deficits exist, nursing is needed to assist individuals in the provision of self care (Orem, 2001). According to Orem, there are many methods that nurses can use to assist others (patients) such as doing for, guiding, supporting and teaching (Orem, 2001). Our findings showed deficits in self-care knowledge of hepatitis B patients. Teaching is the most effective helping method to improve self-care knowledge of hepatitis B patients. Therefore, nurses should provide more education for hepatitis B patients.

Conclusion

This study’s objectives were to determine the levels of self-care knowledge in patients with hepatitis B and recognize some influential background characteristics. One descriptive comparative survey research was designed to meet these objectives. There were 230 patients with hepatitis B in hepatitis departments of 2 large public hospitals in this study. They were interviewed by a questionnaire. Data was analyzed by SABA 10.0 program. Descriptive statistics and chi-square were applied. Finding were:

Fifty-nine point one percent of interviewed patients had high levels of self-care knowledge. Hepatitis B patients’ self-care knowledge included knowledge about diet, personal hygiene, exercise and rest, management and monitoring hepatitis B and prevention of the spreading of HBV to others. Among these, the proportions of patients who had high knowledge about diet, personal hygiene, exercise and rest, management and monitoring hepatitis B and prevention of the spreading of HBV to others were 51.3%, 34.8%, 83%, 34.4%, 64.2%, respectively.

Hepatitis B patients’ self-care knowledge was influenced significantly by education level, occupation and previous health education. Patients’ knowledge regarding diet and personal hygiene was significantly influenced by type of the treatment.

References

Abstract

Dorothea Orem, in her Self-care Deficit Nursing Theory (SCDNT), identified a “legitimate patient” as someone whose self-care agency, defined as a complex set of capabilities that enables individuals to perform self-care, is not adequate to meet their therapeutic self-care demands (Orem, 1991). Motivation is one of the foundational capabilities and power components of self-care agency. Human actions result from motivations and intentions that reflect personal values and desires (Taylor & Renpenning, 2011). Motivation, intention, and choice are essential for engagement in self-care actions. This theoretical paper examines (1) possible causes of motivational impairment in serious mental illnesses such as schizophrenia or schizoaffective disorder, (2) effects of impaired motivation in these disorders, (3) whether amotivation in schizophrenia is amenable to change, and (4) proposed supportive-developmental nursing technologies to enhance motivation. Self-Determination Theory (Ryan, Patrick, Deci, & Williams, 2008) is explored as a comprehensive framework for supportive-developmental nursing technologies to help people with these disorders engage in health-promoting self-care actions. Specific supportive-developmental technologies proposed here include the Transtheoretical Model of Change (Prochaska & DiClemente, 1983) which identifies key stages of readiness for change (pre-contemplation, contemplation, preparation, action, and maintenance); and Motivational Interviewing (Miller & Rollnick, 2002) which is a way of “being with” people to help them navigate the stages of change. Finally, (5) implications for practice and research are discussed.

Keywords: self-care agency, schizophrenia, motivation

It is well-documented that people with serious mental illness (SMI) have high rates of co-occurring medical conditions, inadequate or poorly coordinated health care (e.g., DeHert, Schreurs, Vancampfort & van Winkel, 2009), and typically live 25-30 years less than individuals in the general population (Colton & Manderscheid, 2006). According to Colton and Manderscheid, most premature deaths in this group result from physical conditions, especially cardiovascular disease, diabetes, and other treatable medical conditions.

Some of these health risks are thought to develop as a side effect of antipsychotic medications. However, people with SMI also may have poorer diets and more sedentary lifestyles (DeHert et al., 2009). Developing ways to assist people address lifestyle factors that put them at increased risk for chronic disease and premature death is essential in working with this population.

A major obstacle in helping people with SMIs such as schizophrenia and schizoaffective disorder make healthy lifestyle changes is actually engaging them in the process of change. According to the Diagnostic and Statistical Manual of Mental Disorders, diagnostic criteria for these disorders include negative or deficit symptoms such as apathy, anhedonia, and/or amotivation (American Psychiatric Association, 2000). Amotivation has been identified as a significant symptom of schizophrenia that impacts nearly all aspects of behavior (Choi & Medalia, 2010). In one qualitative study, lack of motivation was a major factor that negatively influenced health-related decisions and behavior (Abed, 2010). For individuals whose psychotic symptoms are relatively well-managed by antipsychotic medication, addressing motivation to engage in healthy lifestyle choices may be key.
Causes of Motivational Impairment in Schizophrenia

Barch (2008) noted a lack of research on motivation in schizophrenia spectrum disorders, in part because motivation is a complex construct that is difficult to quantify. The author suggested a need for further understanding of the neurobiological processes that may influence different components of emotion, reward, and motivation.

Medalia and Brekke (2010) reviewed theories that may help to explain impaired motivation in schizophrenia. Underlying physiological processes that may be implicated in motivational deficits in schizophrenia are complex. For example, people with schizophrenia may have inability to attend to important environmental stimuli, due to deficits in the “attentional network” of the brain (Liddle, Laurens, Kiehl, & Ngan, 2006). The attentional network is comprised of the cerebral cortex, temporoparietal junction and lateral frontal cortex, paralimbic cortex, amygdala and hippocampus, ventral striatum, thalamus and cerebellum. While Liddle et al. (2006) did not directly address motivation, the authors identified the ability to attend to stimuli as a predictor of motivation.

Another neurobiological process implicated in amotivation is the dopamine system, which is highly associated with the experience of pleasure and reward (Barch & Dowd, 2010; Gold, Waltz, Prentice, Morris, & Heerey, 2008). Some researchers suggested that people with schizophrenia may not be able to retain in working memory representations of the value of plans and outcomes (Gard, Fisher, Garrett, Genevsky, & Vinogradov, 2009; Gold et al., 2008). Although individuals with schizophrenia do actually experience the feeling of pleasure or “affective valuation” in the moment, these individuals may have difficulty translating the valued experience into motivated, goal-driven behavior (Heerey & Gold, 2007; Gold et al., 2008).

The role of antipsychotic medications, which decrease availability of dopamine in the brain, has been discussed in relationship to motivation. Typical antipsychotic medication, or first generation antipsychotics such as haloperidol, may contribute to amotivation since they have a greater likelihood of producing extrapyramidal side effects than do the atypical or second generation antipsychotics (Velligan & Alphs, 2008). Extrapyramidal side effects include blunted affect, akathisia, parkinson-like syndrome, and tardive dyskinesia. Liddle et al. (2006) concluded that atypical or second generation antipsychotic medications, although they do decrease dopamine, may actually alleviate motivational deficit. Velligan and Alphs (2008) suggested that the perceived benefits of second generation antipsychotics may result from less extrapyramidal side effects rather than actual treatment of negative symptoms. They further noted that individuals taking second generation antipsychotic medications were more likely to participate in psychosocial treatment and that the actual improvement in motivation may be a reflection of combination of second generation antipsychotics and psychosocial interventions.

Medalia and Brekke (2010) suggested that physiological processes interact with social contextual variables to affect motivation in individuals with schizophrenia. In the discussion of social context, these authors distinguished between extrinsic motivation (EM), the motivation to do something in expectation of a tangible reward such as money, and intrinsic motivation (IM), the motivation to do something because it is rewarding in itself. The authors emphasized the important role of EM, or social context, in the overall motivational response of individuals with schizophrenia. However, while EM is important, it is thought to be insufficient to sustain and generalize change over time (Medalia & Saperstein, 2011).

Effects of Motivational Impairment in Schizophrenia

Regardless of what causes motivational impairment in schizophrenia, the effects of this impairment are well-documented. Motivational impairment has been identified as a reason for severe disability in schizophrenia (Velligan, Kern, & Gold, 2006). Specifically, motivation has consistently been identified as a mediator between cognition and functional outcome (Gard et al., 2009; Yamada, Lee, Dinh, Barrio, & Brekke, 2010).

In one longitudinal study, amotivation accounted for 74% and 72% of variance in functional outcomes at baseline and 6-month follow-up (Foussias et al., 2011). The authors concluded that motivation plays an essential role in prediction of functional outcomes in schizophrenia. Other researchers identified motivation as having a similarly important role as social skills and social support in prediction of functional outcome (Gard et al., 2009).

Can Motivation be Enhanced in People with Schizophrenia?

A critical question about the role of motivational impairment in schizophrenia is whether or not motivation in this population is amenable to change. Recent studies have found that both external (EM) and internal motivation (IM) are malleable in schizophrenia (Choi & Medalia, 2010; Medalia & Saperstein, 2011).
According to educational psychology, conditions that promote IM and subsequent learning for people in general are those that provide personalization of tasks, increase value of tasks by linking them to everyday life, and support autonomy by providing choice (Medalia & Saperstein, 2011). In one study involving people with schizophrenia spectrum disorders, these same techniques used with a treatment group resulted in significantly greater self-report of IM (66% vs. 16%), perceived competency (90% vs. 18% improvement), and skill acquisition in contrast with the comparison group (Choi & Medalia, 2010; Medalia & Saperstein, 2011). These findings are extremely hopeful in that they suggest that motivation can be enhanced in this population.

Velligan, Kern, and Gold (2006) stated that the fundamental disability in schizophrenia resides at the “intersection of cognitive and motivational processes” (p. 481). These authors and others recommended targeting motivation as a way to maximize cognitive and functional outcomes for individuals with schizophrenia.

Supportive-Developmental Nursing Technologies to Enhance Motivation

Taylor and Renpenning (2011) stated that no one theory of motivation has been identified that best articulates with SCNT. They suggested, however, that Self-Determination Theory (SDT) may be useful, since it emphasizes the importance of both internal and external motivation. Likewise, SDT has been proposed as one possible comprehensive framework for enhancing motivation in individuals with schizophrenia (Medalia & Brekke, 2010; Yamada et al., 2010). Constructs central to this theory are autonomy, competence, and relatedness. SDT has been described as a general theory of motivation that has been applied in recent years to studies of health-related behavior change primarily in the general population (Ryan et al., 2008). No studies have been found that incorporate use of SDT with Orem’s SCNT.

Ryan et al. (2008) asserted that, in order for health-related changes to be successfully initiated and maintained, individuals must arrive at personal valuation of the behaviors and affirmation of their importance. According to the authors, this requires autonomous, or internal, motivation. The authors identified “integrated regulation,” in which individuals value a behavior as well as apply it consistently with other lifestyle values and patterns. In conjunction with autonomy, internalization of motivation requires that a person has a sense of competence, or confidence in the ability to change. Ryan et al. distinguished SDT from Bandura’s (1989) self-efficacy theory. In Bandura’s theory, self-efficacy, or belief in one’s ability to change, is sufficient to implement change. In SDT, competency must be present in conjunction with autonomy to result in behavior change. Finally, SDT emphasizes the importance of the client-health-care provider relationship to facilitate change. This is consistent with other sources that identified the essential role of the therapeutic alliance in facilitating health-related behavior change for individuals with SMI (Hewitt & Coffey, 2005; McCabe & Priebe, 2004; McCabe et al., 2012). Emphasis on the importance of the client-provider relationship is also consistent with SCNT, which characterized the nurse-patient relationship as cooperative and collaborative (Orem, 1991).

SDT has been used as a framework for clinical research (e.g., Choi & Medalia, 2010; also see Ryan et al., 2008). However, Vansteenkiste & Kennon (2006) suggested that SDT has been more concerned with theory than with practice. These authors proposed Motivational Interviewing (Miller & Rollnick, 2002) as a tangible way to apply SDT in the clinical setting. Similarly, Markland, Ryan, Tobin, and Rollnick (2005) advocated SDT as a fitting theoretical framework for Motivational Interviewing, which has been criticized as being atheoretical.

Motivational Interviewing is a way of “being with” people that can help them navigate change (Miller & Rollnick, 2002). This model is often used in conjunction with the Transtheoretical Model of Change which describes stages of change as pre-contemplation, contemplation, preparation, action, and maintenance or relapse prevention (Prochaska & DiClemente, 1983).

The Transtheoretical Model of Change was developed using factor and cluster analysis in multiple studies of smoking cessation (Zimmerman, Olsen, & Bosworth, 2000). The Model has been validated, and used in studies addressing a full range of behaviors including smoking, substance use, contraceptive use, exercise and diet, among others (Prochaska et al., 1994; Zimmerman et al., 2000). This model also has been used with people with SMI, often in relationship to co-occurring SMI and substance disorders (Carey, Purnine, Maisto, & Carey, 2001; Nidecker, DiClemente, Bennet, & Bellack, 2008). The Transtheoretical Model of Change is based on the belief that change is not a discrete event but rather a process, and that an empathic, supportive approach in the context of a therapeutic relationship can help people move through the stages of change. This empathic, supportive approach is embodied in the tenets of Motivational Interviewing.

Principles of Motivational Interviewing include: expressing empathy, supporting self-efficacy,
working with resistance, and developing discrepancy between current behavior and desired goals. This method, consistent with SDT, differs from a more traditional approach to motivating change. It does not externally impose change, which may be inconsistent with the person’s values, but rather supports change based on the individual’s goals and desires. Despite multiple methodological issues, research has provided at least moderate support for use of Motivational Interviewing with clients who have SMI experiencing a variety of health-related issues (e.g., Barrowclough et al., 2001; Cleary, Hunt, Matheson, Siegfried, & Walters, 2008; Drymalski & Campbell, 2009; Methapatara & Srisurapanont, 2011; SAMHSA National Gains Center, 2011; Steinberg, Ziedonis, Krejci, & Brandon, 2004).

SDT, the Transtheoretical Model of Change, and Motivational Interviewing are all based on the assumption that human beings are inherently oriented toward growth and change, and that an accepting and supportive environment is necessary to facilitate change (Ryan et al., 2005). SDT and Motivational Interviewing were compared on all major constructs and determined to be philosophically congruent (Ryan et al., 2005 Vansteenkiste & Sheldon, 2006).

**Implications for Practice and Research**

The integration of Self-Determination Theory with Prochaska and DiClemente’s (1983) Transtheoretical Model of Change and Miller and Rollnick’s (2002) Motivational Interviewing approach has potential to provide supportive-developmental nursing strategies in working with clients with schizophrenia, schizoaffective disorder, and other serious mental illnesses. No studies were found that integrate SCDNT with SDT, the Transtheoretical Model of Change, and/or Motivational Interviewing. However, exploration of the potential utility of these strategies to enhance motivation, viewed as a foundational capability and power component of self-care agency in people with SMI, is a worthwhile endeavor. The field of psychiatric-mental health nursing is a ready venue to apply these supportive-developmental strategies, and to evaluate their effectiveness and efficacy in the clinical setting.

Ryan et al. (2008) stated that behavioral change involves both initiating behavioral change, and maintaining these changes over time. On face value, these concepts are consistent with the estimative, transitional, and productive stages of deliberate action in SCDNT. Also, might there be a relationship between the stages of deliberate action described by Orem, and Prochaska and DiClemente’s (1983) stages of readiness for change? Further exploration of motivation in the context of the stages of deliberate action would be productive.

Ryan et al. (2008) suggested research to further explicate the functional attributes of autonomy, competence, and supportive relationships, and the types of care that help to facilitate effective and long-lasting behavior change. Research has demonstrated that conditions that support autonomy and help to develop competence do in fact enhance motivation in persons with schizophrenia and lead to better functional outcomes such as skill acquisition (Choi & Medalia, 2010; Medalia & Saperstein, 2011). It would be instructive to explore specifically how autonomy and competence interact with motivation, as well as other foundational capabilities and power components of self-care agency; and what specific aspects and conditions of supportive-developmental nursing systems are required to help facilitate health-related behavior change in the population of people with schizophrenia/schizoaffective disorder.

Finally, Yamada et al. (2010) recommended exploring clinical and sociodemographic variables that may influence motivation. This suggests the need to explore the relationship between basic conditioning factors and motivation within a SCDNT framework.

**Conclusions**

Intention, motivation, and choice are critical aspects of self-care agency. This paper has explored ways in which motivation may be affected by a serious mental illness such as schizophrenia or schizoaffective disorder, possible causes and effects of impaired motivation in these disorders, whether amotivation in schizophrenia is amenable to change, and the potential utility of Self-Determination Theory (Ryan, Patrick, Deci, & Williams, 2008) as a comprehensive framework for supportive-developmental nursing technologies to help people with these disorders engage in health-promoting self-care actions. Specific supportive-developmental technologies were proposed, including the Transtheoretical Model of Change (Prochaska & DiClemente, 1983, and Motivational Interviewing (Miller & Rollnick, 2002).

Nurses who use Self-Determination Theory as a guiding framework, and implement the specific principles and strategies encompassed in the Transtheoretical Model of Change and Motivational Interviewing, can potentially help people with schizophrenia/schizoaffective disorders identify intention to change, discover intrinsic motivation for change, and choose change strategies consistent with personal values.
and desires. Exploration of these strategies may expand the supportive-developmental technologies available to nurses, and may ultimately help people with serious mental illness engage in self-care practices that lead to improved health outcomes.

References


Abstract

Nursing theories guide the practices of the care process. In this study, it was thought that Orem’s self-care deficit nursing theory (SCDNT) could be a useful guide in diabetes self-management education to improve the self-care behavior of a diabetes patient, and an attempt was made at indicating its applied use. We recommend that use of the SCDNT in diabetes self-management education be practised in a randomized controlled trial.

Key words: Diabetes Education, Self-Care Deficit Nursing Theory, Type 2 Diabetes.

Introduction

Diabetes is a chronic and metabolic disease characterized by macrovascular and microvascular complications along with the dysfunction of fat and protein metabolisms as a result of complete or partial deficiency of insulin secretion or insulin resistance at different levels (American Diabetes Association [ADA], 2012). Type II diabetes constitutes almost 80-90% of all diabetes cases (World Health Organization [WHO], 2011). It has an increasing prevalence due to sedentary lifestyles and changes in forms of nutrition (WHO, 2011). In Turkey, while the prevalence of diabetes was found to be 7.2% in a study conducted by Satman et al. in 2002 among adults aged 20 and over, this ratio increased to 13.7% in 2010.

Uncontrolled blood glucose level is the basic problem in individuals with diabetes. Elevated blood glucose level leads to cardiovascular diseases, nephropathy, neuropathy, lower extremity diseases, amputations and visual impairment (WHO, 2011). In diabetes management, the aim is to ensure glycemic control and prevent complications (ADA, 2012). The treatment recommended in the 2012 clinical guide of American Diabetes Association to ensure glycemic control and prevent complications in diabetes patients includes medical nutrition treatment, physical activity, oral antidiabetic/insulin treatment, self blood-glucose monitoring and diabetes self-management education. (ADA, 2012). According to Orem’s self-care deficit nursing theory (SCDNT) (Orem, 1995), the clinical guidance of ADA (2012) suggests attending to health deviation self-care requisites. So the person with diabetes needs to re-regulate medical nutrition treatment and physical activity, if necessary, using drug and blood-glucose monitoring to evaluate the outcome of self-care activities. The person with diabetes must learn how to evaluate themselves, decide what actions need to be taken to attend to their needs, and perform those actions; and these actions will become possible with education about diabetes.

Diabetes self-management education is the process of informing, strengthening and empowering the diabetes patient for diabetes self-care (IDF, 2009). It is recommended that diabetes self-management education should be provided based on a theoretical approach (AADE, 2010). In this study, diabetes self-management education was provided based on self-care deficit nursing theory.

When the studies in which the application of Orem’s SCDNT to diabetes patients is observed, the studies done have been descriptive, for the most part. In these studies, generally the self-care agency and the factors that have an influence on self-care have been analyzed. If we are to observe studies related to how the theory is used, only one experimental (Ünsal and Kızılcı, 2011) and two case studies (Kumar 2007; Clark, 1986) can be found in the literature. In these case studies, diagnoses were established in line with the self-care deficit nursing theory but it was not clear how the nursing planning and implementation were carried out. In this study, diagnosis, planning and practice were also carried out in line with the self-care deficit theory of nursing. Differently than in the other two studies, it was explained how nursing
practices were planned and conducted in line with the self-care deficit theory of nursing. Diabetes self-management education was applied in this study. The objective of this study is to indicate the use of SCDNT in the diabetes self-management education of patients with Type II diabetes.

**Methods**

This study is a descriptive case study. The selected subject was a female patient who resorted to the Diabetes Education Center affiliated to the Directorate of Nursing Services of Dokuz Eylül University, and was subsequently followed up for three months. The case study was approved by the Ethics Committee of Non-Invasive Research at Dokuz Eylül University. We used her case for the study with her written and oral permission. According to AADE, diabetes self-management education is a problem-solving process and consists of such steps as assessment (process identification), goal setting, planning, implementation and evaluation (AADE, 2010). These steps are the same as in the nursing process. In this study, the five steps of DSME were used and five steps were implemented at each session held with the patient.

**Use of Self-Care Deficit Nursing Theory in Diabetes Self-Management Education**

Use of SCDNT in diabetes self-management education was shown in the course of assessment (process identification), goal setting, planning, implementation and evaluation steps.

**Assessment** (22nd February/ 01st March/ 05th April/ 05th May, 2011): Orem stated that it is necessary to identify the basic conditioning factors (BCFs) of the individual and the relationship between the status of meeting the therapeutic self-care requisites and self-care agency for a nursing diagnosis (Figure 1) (Orem, 1995). The purpose of diagnosis is to determine self-care deficits and the reasons for them. To this end, the patient’s BCFs (Table 1) were identified and then the status of meeting therapeutic self-care demands (Table 2) and self-care agency was assessed. The patient’s self-care agency was determined by assessing the power components of self-care agency, and it was concluded that there was a knowledge deficit concerning diabetes management; patients did not believe their health status could be improved and some disorders were ignored.

The patient could meet her universal and developmental self-care demands on her own. However, some deficits were detected in such fields as being aware of and prepared for the effects and results of pathological conditions, effective implementation of medically prescribed diagnostic, therapeutic, and rehabilitative measures, and being aware of and prepared for the effects of medical care (Table 2).

When the relationship between the patient’s BCFs, and therapeutic self-care requisites and self-care agency was examined (Figure 1), self-care deficits were determined to be: deficiency in the awareness of effects and results of the pathological condition, lack of knowledge and a consequent disbelief that their health status could be improved; deficiency in the effective implementation of medical treatments and rehabilitative interventions due to ignoring some disorders in the belief that they will recover in time, and deficiency in awareness of the effects of medical care (Table 2).

**Goal Setting** (22nd February/ 01st March/ 05th April/ 05th May, 2011): Involvement of the person with diabetes in the research process is critical for achievement of goals. At each session, goals concerning three self-care deficits, and method(s) to achieve these goals, were determined together with the patient (Table 3).

**Planning** (22nd February/ 01st March/ 05th April/ 05th May, 2011): This is the process of determining how to develop self-care agency or dependent care agency in order to meet the therapeutic self-care requisites of the individual. The questions to be resolved are who will meet the individual’s therapeutic self-care requisites (self-care agent, dependent care agent) and how will they be met (nursing system) (Orem, 1995). It was decided that the patient could be her own self-care agent, while a supportive-educative nursing system should be used to develop her skill in meeting the self-care requisites (Table 3).

**Implementation** (22nd February/ 01st March/ 05th April/ 05th May, 2011): According to Orem, this process is implementation of the actions organized and planned by nurses in the nursing-planning process to develop the self-care agency or dependent-care agency with the aim of meeting the therapeutic self-care demands of individuals (Orem, 1995). Diabetes self-management education was applied in the supportive-educative system (Table 3). Diabetes self-management education was completed in four sessions. Each session was composed of five steps. The first step is assessment; the second step is goal-setting; the third step includes planning, the fourth step is implementation, last and the fifth step is evaluation (AADE, 2010). At each session, five steps of self-management education were implemented (Figure 2). Therefore at each session, a different topic of diabetes self-management education was discussed (Figure 2).

Each session lasted for about one hour. At each session, a knowledge deficit of the patient
was satisfied, the patient’s experiences regarding diabetes, its treatment and the results were discussed, goals were set and consideration was given to whether the goals set for the following session would be fulfilled or not. Goals which were set but could not be fulfilled were addressed at each session, the reasons for failure were interrogated and discussed with the patient, and these goals were revised. During this time, the patient received telephone consultancy three times with regard to hyperglycemia and the use of complementary and alternative treatments.

**Evaluation (22nd February/ 01st March/ 05th April/ 05th May, 2011):** According to Orem, the individual’s status in meeting his or her own self-care demands and in developing self-care agency/dependent care agency are assessed in the nursing assessment process (Orem, 1995). With this point of view, the patient’s behaviours concerning diabetes management and status of accomplishing the objectives were discussed individually during each interview with the patient, according to the information obtained; the patient’s assessment results are given under

<table>
<thead>
<tr>
<th>Table 1. Basic Conditioning Factors of the Patient</th>
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<tbody>
<tr>
<td>1. Age 66</td>
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<tr>
<td>2. Gender Woman</td>
</tr>
<tr>
<td>3. Developmental State Older</td>
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<tr>
<td>4. Health State Type II diabetes for 17 years,</td>
</tr>
</tbody>
</table>

**Laboratory values (22 February 2011):**

- Glycosylated hemoglobin (HbA1c): 10.2,
- Fasting blood sugar (FBS): 239 mg/dl,
- Postprandial glucose (PBG): 297 mg/dl,
- High-density lipoprotein (HDL): 39 mg/dl,
- Low-density lipoprotein (LDL): 181 mg/dl,
- Total cholesterol: 244 mg/dl,
- Triglyceride: 122 mg/dl,
- Blood pressure (BP): 160/80mmHg,

**Complications:** No retinopathy, nephropathy and neuropathy but uses glasses due to astigmatism,

**Other disease:** Hypothyroidism, hypertension, hyperlipidemia.

**Medicines:** Insulin aspart 16 units, insulin detemir 46 units, incuria, levothyroxine sodium and losartan potassium 100 mg, hydrochlorothiazide 25 mg.

**Health perception:** Health state was described as mediocre.

5. Sociocultural Orientation High school graduate, retired from topography 29 years ago, not working in any job now. In addition to the medicines prescribed by the doctor, she consumed herbal teas (lime, cinnamon, carnation, sage tea, ginger, menthol).

6. Health Care System Factors Affiliated to the social security institution. She stated that she used the university hospitals, family health centres and state hospitals for health checks.

7. Family System Factors Widow and had one child. She lived alone.

8. Pattern of Living She did not use cigarettes and alcohol. She attended a needlecraft course as a hobby and states that she did no physical activity except for shopping and housework.

9. Environmental Factors She lived on the sixth floor of an apartment building with an elevator. Building had a green space and a walkway around it for physical activity.

10. Resource Availability and Adequacy She stated that she could find the medicines and materials necessary for her treatment easily (insulin, needle etc.) but had difficulty in getting appointments for routine controls, She could receive advice from nurses when it was required/needed,
Table 2. The Patient’s Therapeutic Self-Care Demands and Self-Care Deficits

<table>
<thead>
<tr>
<th>Universal Self-Care Requisites and Self-Care Deficit</th>
</tr>
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<tbody>
<tr>
<td>1. Air</td>
</tr>
<tr>
<td>2. Water</td>
</tr>
<tr>
<td>3. Food</td>
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<tr>
<td>4. Excretion processes</td>
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<td>5. Activity-Rest</td>
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<tr>
<td>6. Social Interaction</td>
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<td>7. Prevention of Hazards</td>
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<tr>
<td>8. Promotion of normalcy</td>
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</tbody>
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<tr>
<th>Developmental Self-Care Requisites and Self-Care Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Protecting and maintaining the developmental environment</td>
</tr>
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<table>
<thead>
<tr>
<th>Health Deviation Self-Care Requisites and Self-Care Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Seeking and securing appropriate medical assistance</td>
</tr>
<tr>
<td>2. Being aware of and prepared for effects and results of pathological conditions</td>
</tr>
<tr>
<td>3. Effective implementation of medically prescribed diagnostic, therapeutic, and rehabilitative measures</td>
</tr>
</tbody>
</table>
4. Being aware of and prepared for effects of medical care

She did not know the risks of developing hypoglycemia, hyperglycemia and lipohypertrophy depending on insulin treatment mistakes. **Self-care deficit:** Insufficient awareness of the effects of medical care due to lack of knowledge.

5. Modifying the self-concept and self image in a particular state of health

No problem.

6. Learning to live with effects of pathological conditions

She was not problematic with her diabetes and overweight and tried to manipulate her diabetes. No problem.

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**Table 3. Nursing Interventions Planned and Implemented to Improve Patient’s Self-Care Deficit**

<table>
<thead>
<tr>
<th>Self-Care Deficits</th>
<th>Goals (Goals were determined according to ADA 2012)</th>
<th>Supportive-Educative Nursing Implementation for the Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Insufficient awareness of the effects and results of the pathological condition due to lack of knowledge</td>
<td>1. Explaining the concept of HbA1c, 2. Explaining what the lipid profile is, 3. Knowing the complications that may be provoked by high level of HbA1c, 4. Knowing the complications that may be provoked by changes in the lipid profile, 5. Knowing the complications that may be induced by overweight</td>
<td>1. Information was provided about what the HbA1c and lipid profile were, and the complications caused by a high level of HbA1c, changes in the lipid profile and overweight.</td>
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<td></td>
<td>2. Effects, reasons and results of high levels of HbA1c and lipid values were discussed with the patient on the basis of her laboratory results.</td>
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<tr>
<td>2. Insufficiently effective handling of medical treatments and rehabilitative interventions due to lack of knowledge, disbelief that her health will improve, ignoring some disorders and the belief that these disorders will fade away on their own</td>
<td>1. Performing physical activity regularly, 2. Starting this physical activity one hour after the meal, 3. Eating the recommended main meals and snacks, 4. Applying the insulin at the right dose, conducting the injection site control, 5. Conducting the site rotation and in-site rotation per week, 6. Using a 6 mm needle, grabbing the skin during injection, 7. Performing a daily foot examination, 8. Cutting the nails properly, 9. Wearing orthopedic shoes and cotton socks and not wearing flip-flops, 10. Performing the self blood glucose measurement as recommended, 11. Performing her eyes and feet examined annually, taking the kidney tests annually, conducting the lipid control and HbA1c follow-up once in every three months.</td>
<td>1. Information was provided as to how to perform regular physical activity, the importance of complying with the medical nutrition therapy and medicine therapy, how to conduct the foot care, and the importance of self-monitoring.</td>
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<td></td>
<td>2. Patient was trained about the foot and eye examinations that should be done routinely, kidney function tests, lipid and HbA1c controls, and the importance and frequency of blood pressure monitoring.</td>
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<tr>
<td></td>
<td></td>
<td>3. Brochures were given to inform her regarding foot care and management of hypoglycemia and about the frequencies and aims of controls that should be conducted routinely.</td>
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<td>4. Patient was sent to the dietician and the diabetic foot polyclinic.</td>
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<td>5. Positive development in the health of the patient as a result of the interventions performed in line with the weekly objectives and the comparison between HbA1c and lipid levels of the first month and those of the third month were explained to the patient. Positive development in her health promoted her belief that her health could change for the better.</td>
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<tr>
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<td>6. Importance of resorting to a doctor when making health-related changes was explained.</td>
</tr>
</tbody>
</table>
three groups below, in relation to the determined self-care deficits.

* **Being aware of and prepared for effects and results of pathological conditions**: After consultancy, diabetes self-management education and discussions, the patient managed to express what HbA1c and lipid profiles were and to summarize the complications caused by changes in the lipid profile and overweight. She could interpret her own laboratory results and reported by telephone the values that she got three months later.

* **Effective implementation of medically prescribed diagnostic, therapeutic and rehabilitative measures**: She stated that she postponed the plan for 30-minutes daily activity due to influenza but would start walking after dinner when the weather warmed up. It was observed that the patient sent to the dietician after the first interview went to the dietician. She stated that she tried to comply with the snacks and the diet plan recommended by the dietician. She also stated that she carried out site control prior to injection, started to use a 6 mm needle, grabbed the skin properly during injection, began to use her arms as a place of injection but did not use her legs as she felt pain there after an injection. It was also observed that the patient sent to the diabetic foot polyclinic went to the polyclinic. She started to perform a daily foot examination, cut her nails properly, wear orthopedic shoes and cotton socks, and stopped wearing flip-flops. Furthermore, she began to perform the blood glucose measurement as recommended and record it. She stated that she applied the insulin doses recommended by the doctor in time.

She could explain how she could manage hypoglycemia. In the event of hyperglycemia, she increased the insulin dose for two units, reduced the carbohydrate intake and monitored the blood glucose level. She also stated that she would resort to a health institution if she could not manage any case of hypoglycemia and hyperglycemia.

She realized the importance of having her feet and eyes examined annually, taking the kidney function tests annually and taking the lipid control and HbA1c monitoring once every three months. In the interview after three months, she had had her HbA1c and lipid levels and blood pressure measured, and showed them to us.

Positive developments in the patient’s health, positive results of the objectives which were set and applied per week and her weight, HbA1c and lipid values in the first interview and those obtained after three months were shared with the patient (Table 4). It was observed that she was rather pleased and motivated.

* **Being aware of and prepared for effects of medical care**: The patient could explain the risks of hypoglycemia, hyperglycemia and lipohypertrophy that may develop depending on insulin treatment mistakes.
**Conclusion and Further Research**

Use of SCDNT in diabetes self-management education served as a guide in identification, planning and implementation. In the course of identification, a wide perspective was provided by determining the existing problems and which problems may occur in the patient’s self-care attitude. Her self-care behavior has provided a wide range in evaluating the basic conditioning factors which influence the self-care and in the inspection of the environment. Nursing planning, has been guided by the self-care agency of the patient who is supposed to take care of her requisites and how the responsible person can help her by means of nursing systems. The implementation has demonstrated what can be done to improve self-care behaviors and how to address the subject (education, guide etc.). Therefore, it increased the patient’s involvement in her own care and brought positive changes to her health status.

We had difficulty in putting the theory into practice due to the abstract nature of its concepts (power components of self-care agency, therapeutic self-care demands, human and health state concept).

We recommend that the use of self-care deficit nursing theory in diabetes self-management education be practised in a randomized controlled trial.

**References**


Keywords: nursing education, nursing practice, nursing science, nursing theory, self-care science

There is an ever increasing demand for professionally educated nurses. In the future, major areas of practice will involve helping persons learn how to care for self, requiring knowledge of the science of self-care, as well as providing care, requiring sciences of nursing action/caring. The general theory of nursing, Self-Care Deficit Nursing Theory, is the essential structure for nursing (Orem, 2001). The increasing number of people with chronic diseases and increasing use of technology requires nurses with not only theoretical knowledge of the science of self-care but also design and technological skills. Future roles of professional nurses need to be developed in light of these variables. A solid science base balanced with a commitment to personalism (Taylor & Renpenning, 2011) is essential for professional education and practice.

This overview of the world of nursing from my perspective is organized around three time points – obviously the past, present and future. While we know events of the past, we are still interpreting their meaning and effect so as to aid us as we move forward into the future. Remember that my perspective is reflective of the United States (U.S.), though I think other cultures mirror our experiences to a great extent.

Past

I began my career in nursing over 55 years ago. As with so much in this world, there have been phenomenal changes in how we educate nurses and how we provide service to patients. In 1957, when I graduated from a degree program, the majority of nurses were being educated in hospital-based schools of nursing. I was fortunate to attend a liberal arts college, receiving a baccalaureate degree in nursing with good science and liberal arts in the curriculum along with an extensive base of clinical education – much more than is found in the typical program today. Two year associate degree technical nursing programs didn’t exist. Vocational or practical nursing programs were evolving. Dorothea Orem was beginning her work on formalizing nursing while studying hospital nursing services in Indiana. Her work and the work of other theorists had not yet influenced nursing. Most nursing positions, jobs, were within hospitals. Practice areas were referred to as medical, surgical, psychiatric, pediatrics, and obstetric nursing, using the nomenclature of the usual medical specialties. Nurses were assigned to a unit or ward with a strong Head Nurse who ran the unit and was liaison between the patient and family, physician and staff. The work of caring for patients was structured along functional lines – one nurse did meds, another treatments, another did the hygiene care for complex patients, assisted by nurses’ aides and orderlies (by gender). There were no recovery rooms or intensive care units. Patients were recovered by nurses on the unit. In more complex situations, a special, private duty nurse was employed to take care of a single patient, paid directly by the patient or family for the service. Using a sphygmomanometer was considered high tech for nurses. We prepared our own injectables, rewashed, sterilized and reused syringes and equipment.

Public health nursing and community nursing were recognized as separate and distinct, with specific important roles. In those days, the public health nurse (PHN) did health screenings in the schools, immunization and well-baby clinics and contagious disease surveillance which included posting quarantine signs for communicable diseases such as measles, mumps, chicken pox, TB. In my city, the PHN delivered the birth certificate and a copy of Dr. Spock’s baby book.
(Spock, 1957) to each new mother as a way to do follow-up and assess the home situations. Mothers were taught how to bathe and feed babies and appointments were made for well-baby checks.

Community nursing focused on home care such as was provided by the Visiting Nurse Association. There were county or city homes for the aged poor but few nursing or assisted living facilities as we know them today. It was the norm for the family to take care of the aging and ill members with the assistance of a Visiting Nurse.

I could go on and I’m happy to share stories but there’s limited value for our purpose in reminiscing other than to understand that “what is past is prologue.” What was happening then influenced what is happening now. I’ll leave it to our nurse historians to continue to help us understand how we have progressed as a profession.

Over time, the dynamic energy that is nursing recognized the limitations in these approaches and saw the potential for improvement. Change became a recognized way of life within the profession, to the extent that we thought it worthwhile to teach nurses to be “change agents”. These changes were accompanied by varieties of social political issues that are still being dealt with such as licensure, independent practice and prescribing rights.

Present

What is nursing like now? Those who are currently active can probably describe it better than I. Nursing education programs are burgeoning throughout the world. There are multiple forms of graduate nursing education with a variety of research and practice focuses. The baccalaureate is becoming the standard for general nursing.

As for practice, there have been so many changes. To name just a few – greater diversity of roles, and diversity of practitioners; increasing job opportunities within and beyond the hospital (so many that I don’t know how one chooses), increasing technology to support nursing in the provision of care to persons, families and communities.

Since I retired in 2000, my knowledge of contemporary nursing has been formed by and reinforced through family experiences, continued reading and study, and discussion and reflection with other nurses and health care providers (that term alone reflects some major changes.)

My knowledge of contemporary acute care nursing was recently enhanced or sharpened when I was admitted on an emergency basis for a laparoscopic cholecystectomy. After a very unpleasant evening suffering an acute episode of vomiting and pain, a friend took me to the emergency room at the community hospital. It was a quiet Friday night in the ER, so I was immediately tended to. The staff was friendly and competent. Thanks to technology all the information they needed was in the computer, just needed to update medications being taken. (Not at all like the comedic scene of the person slowly bleeding out while having to complete pages and pages of insurance and health data before being seen by a practitioner.) A CAT scan showed gall stones blocking the gall bladder. The surgeon was called and the decision for surgery was made. I would stay in the hospital overnight and have the procedure on Sunday. I was moved from ER to a new high tech patient surgical tower with private rooms.

Activities generally accepted to be within the broad field of nursing were performed by minimally trained patient care technicians (PCT), e.g., monitoring vital signs, checking dressings, answering call bells under the direction of the registered nurse. It was an interesting experience. I felt confident that I was being well taken care of by friendly, competent, caring people with defined roles. However, the constant stimulation of the environment drove me to the edge. The bed was moving - alternate zones inflating and deflating. (I wouldn’t get skin breakdown nor would I get a good night’s sleep.) Pillows were encased in plastic, hygienic but uncomfortable. Each piece of electronic equipment had its own individual harmonic and beep, the air climate control was blowing, lights were always on. Being new, there were many unpleasant odors in the environment.

To a great extent, the amount and quality of care depended on my ability to describe and interpret my sensations and responses (is this self-care?) having to rate my pain on a scale of 1-10 was a daunting task for me. Needless to say, I was much too analytical about it, only to find that it didn’t mean a whole lot. The nurses used their own observational skills and knowledge base to assess the need for analgesia. But by documenting my numeric responses, they were able to demonstrate that they were assessing and managing my pain. What’s that saying – “if it isn’t written down, you didn’t do it”?

And so on the second post-op day I was discharged to home. There was some talk of discharging me on the day of surgery or the following day. Consultation amongst myself, the nursing staff, and others kept me in the hospital until the morning of the second day post op. There was substantive discharge teaching and queries regarding my ability to care for myself or the existence of support systems.

So now, a procedure that 50 years ago or less would have involved a major incision, drains, dressing changes, long hospitalization, and probably a higher incidence of complications.
would also have involved more personal care by nursing staff, giving the nurse a greater opportunity to know the patient as person with family, to have a broad focus on health and well-being and on integrating events into life system. “Participation is at the foundation of personal existence…and entails joining with others in shared activities, purposes, and goals and consists in engagement with others…” (Taylor & Renpenning, 2011, pp. 105-106). Nurses are challenged to maintain this personalism in the contemporary acute care environment and time-limited interactions. However, nurses are moving into new arenas of practice that incorporate personalism as an essential aspect of practice.

And while we lacked a way to talk about what we did and thought as nurses, we knew how to do nursing. We took care of the body with comfort and hygiene measures, hopefully conveying to patient and family humanness and empathy in the relationships, treating the patient as a person with inherent value in our interactions. At least that was a value and goal. Did we always meet it? Of course not. But when we didn’t, as now, when we treat the patient as object, we diminish ourselves, the patient and the profession.

From Past to Present

In the time leading to the present, dramatic shifts occurred in the appearance of nursing, nursing education and health care. The locale where care is delivered has changed, new and additional activities have become expected elements of the nursing role. The incorporation of technology in all aspects of work and life continues to challenge personal and professional roles and activities.

More of the acute care can be managed by well-educated and trained technicians and technologists. This could leave professionally educated nurses for delivery of complex patient care, leadership, development, infusion of innovation, design, research and educational roles associated with differing levels of education.

In the developed nations, we have a greater understanding of the elements of health, and its relationship to well-being, the importance of taking care of ourselves and others, and the need to incorporate all of this into a satisfactory way of living. From our early history, nurses knew that promotion of health and prevention of illness went side by side with care of the ill, infirm and injured. We know now, in ways we didn’t 50 years ago, the importance of developing an integrated self-care system from birth to death. And the importance of developing social systems that enable persons to do this, including education, development of information systems to access quality information, and home and community-focused programming. Today the U.S. is struggling with establishing systems that enable all persons to access quality health care. There is a need to help persons develop reasonable expectations as to what can be done; recognizing that just because something can be done doesn’t necessarily mean it should be done. We see this in the development of palliative care initiatives and hospice programs, for example. As a society, perhaps we need to dial back our expectations and clarify our basic values. There are some serious ethical questions embedded in these ideas.

In 1960, I returned to the University to do graduate work in nursing. From my perspective, the greatest change leading up to the present is in the ways in which nurses are educated. From a rather singular model of hospital-based in-service training, with few baccalaureate and graduate education programs, there now is a complex multi-level plethora of education and training programs. During the 1960-70’s, Dorothea Orem and other scholars were developing definitions and models of nursing to bring structure and clarity to the practice and knowledge base of nursing as a discipline. In my BSN program we worked from a Christian, scholastic perspective of the human person as having needs and value, existing within a family and community that had shared responsibilities for care/caring. We learned a definition of nursing written by Sr. Olivia Gowan (Renpenning & Taylor, 2003, p. 155). We wrote nursing case studies that incorporated these needs and resources. We came to understand the patient as person and their medical and health needs. From this we were asked to draw “implications for nursing”. What did it mean for nurses if a person received a particular medicine or form of treatment? If a broken leg was put into a plaster cast, what did we as nurses need to observe for or do to maintain comfort and safety? All of our knowledge was viewed as derivative. Through the centuries, we had developed a body of knowledge on how to do things in particular circumstances. In my masters program, for example, I learned how to write procedures using principles of anatomy and physiology, considering logical sequencing of actions including materials needed, time, expected outcome and so forth intuited from disparate bodies of knowledge. At that time the idea of nursing care plans was emerging. We were directed to take doctors’ orders and translate them into sets of actions to be performed at particular times with some expected outcome related to the medical diagnosis. Also, about this time nursing scholars began to see a need for some organizing structures for nursing knowledge. One of the
The use of paranursing technicians will need to intensivists, transplant nurses, trauma nurses. to manage the care for the person, e.g., nurse technologies of therapy each requiring a specialist more sophisticated facilities using many different will be high-tech acute episodic care in more and including chronic disease management. Another on primary care for many and various age groups, specialization within nursing. One focus will be and responsibilities and continuing split and

Trends in Practice

There will be increasing expansion of roles and responsibilities and continuing split and specialization within nursing. One focus will be on primary care for many and various age groups, including chronic disease management. Another will be high-tech acute episodic care in more and more sophisticated facilities using many different technologies of therapy each requiring a specialist to manage the care for the person, e.g., nurse intensivists, transplant nurses, trauma nurses. The use of paranursing technicians will need to be carefully managed by professional nurses. Most of the care will require nurses with BSN degrees or higher. The Institute of Medicine (2011) recommendation is that 80% of nursing staff in acute care hospitals be baccalaureate educated. The emerging focus on patient-centered care will require greater nurse and physician collaboration changing from that of physician dominated to shared practice and decision making; independent professionals in true collaboration. The current movement is to engage each person in a medical home (National Conference of State Legislators, 2011, Veterans Administration). According to the principles, patient-centered medical homes should have these characteristics: a personal physician, physician-directed medical practice, whole-person orientation, coordinated care, quality and safety, enhanced access and adequate payment. In this new model, the traditional doctor’s office is transformed into the central point for Americans to organize and coordinate their health care, based on their needs and priorities. At its core is an ongoing partnership between each person and a specially prepared primary care physician. This new model provides modern conveniences, like e-mail communication and same-day appointments; quality ratings and pricing information; and secure online tools to help consumers manage their health information, review the latest medical findings and make informed decisions. Consumers receive reminders about necessary appointments and screenings, as well as other support to help them and their families manage chronic conditions such as diabetes or heart disease. The primary care physician helps each person assemble a team when he or she needs specialists and other health care providers such as nutritionists and physical trainers. The consumer decides who is on the team, and the primary care physician makes sure they are working together to meet all of the patient’s needs in an integrated, whole person fashion. While the concept is being put forth in medical terms because our health care system is so medico-centric, it could be done by nurse practitioners. Furthermore, it is an expensive resource intensive system that will not provide services to the poorest of the poor. One of the problems is that consumers are not knowledgeable about how to use the system nor is health the priority in their lives. This will be required to make such a system successful. This will require more of a paradigm shift on the part of physicians. Nursing has the advantage with its history of patient/person centered care, and team nursing.

Given the capability for electronic health record keeping, we need to capture nursing data in ways that keep the nursing meaning so that we

The Future

So, all that said, what does the future look like for nursing within health care? While we cannot know for certain, it is possible to identify some trends and significant issues.

Trends in Practice

There will be increasing expansion of roles and responsibilities and continuing split and specialization within nursing. One focus will be on primary care for many and various age groups, including chronic disease management. Another will be high-tech acute episodic care in more and more sophisticated facilities using many different technologies of therapy each requiring a specialist to manage the care for the person, e.g., nurse intensivists, transplant nurses, trauma nurses. The use of paranursing technicians will need to
do not lose all the potential nursing knowledge that can be developed through the use of large data sets. This is particularly important in chronic disease management where self-care science is more nursing focused. The SCDNT can provide the structure for the data gathering and interpretation.

With the shorter hospital stays, the arena of home care, i.e., care provided to ill, infirm, fragile, vulnerable persons outside of institutional settings, will increase or other kinds of care facility will develop. With an emphasis on “aging in place” there is an increasing demand for persons to provide in-home care and management of the home. While this can be done by minimally trained workers with home-making skills, there is a need for surveillance and development of self-management systems. If this is not attended to, the rate of re-admission will continue to be high as will the cost of care.

The continuing development of professional nursing is also an important part of the future. How the nurse is socialized to become the expert professional will be better understood, leading to development of internships and mentoring opportunities within the field. Luntley (2011) suggests that the professional knowing nurse is not the nurse who knows all the answers, but is the nurse with the attentional skills to keep pace with what she/he and colleagues are doing, how they are doing it and to be able to pick it up in thought and make it something for which there are reasons for doing. This is the nurse who knows how to go on. The professional nurse must retain the responsibility for designing systems to use the technologies for cohorts of patients.

**Trends in Education**

From my perspective, the greatest change has been and will continue to be in the way in which nurses are educated. Nursing went from a rather singular model of hospital-based training programs, and a few baccalaureate programs, to the current complex multi-level plethora of programs. Whether this is a good thing is yet to be determined. Parse (2012) recently commented on this raising many questions regarding the real differences in these programs, both content and outcomes and whether these make a difference in healthcare delivery. Ultimately the question of concern is the development of nursing science and knowledge. There will be a strong focus in the curriculum on biosciences such as anatomy, physiology, pharmacology, genetics, etc. The concern will be on the life processes, maintaining and extending life. This content will need to be balanced with the human personal sciences or fields of knowledge and development of critical thinking skills. There is a need to recognize that a professional masters or doctoral degree will be the minimum preparation for a professional nurse to meet role expectations. I believe that the SCDNT provides structure for examining the question of how one conceptualizes nursing in high tech practice. Nursing education may be reaching a point where basic programs should structure their curriculum on the nursing sciences of wholly compensatory, partly compensatory and supportive-developmental nursing systems.

More of the education will be conducted through electronic media. Programs can be interdisciplinary and global, not limited to a particular site. The challenge is to maintain the quality of the practice component, including interpersonal skills and socialization to the profession.

Changes in education lead to issues regarding the organization of the profession and workforce. There must be a synergy between practice roles and education. We must continue to develop technical and technological education programs that will provide the high levels of skill needed to care for patients in high tech environments. These may well be at the baccalaureate level of education. We need to develop technologies related to self-care of persons in different settings and develop/educate technicians to implement those technologies. Programs need to include policy issue development and engagement opportunities within health care institutions and the broader society.

Nursing education should be structured with a conceptual framework that is nursing specific. We have gone beyond the point where nursing knowledge is derivative to that of having our own evolving science. The changing role of nursing within the health care system (from the doing to the thinking) will impact educational programs so as to facilitate the development of nursing science. How is the nurse taught to keep the focus on the person in the midst of all the technology? While it is imperative that the technology be used and managed to get the best outcome for the patient, it is also imperative that we treat the patient as subject, not merely as an object (Taylor & Renpenning, 2011).

**Trends in Knowledge Development**

Moving forward in development of the SCDNT needs to be collaborative between practice and education. In addition to enhancing the science of self-care (which is often interdisciplinary), the development of the nursing sciences and applied nursing sciences must continue. Doctoral programs, both research (PhD, DNS) and clinical (DNP) need to have knowledge development as a major outcome of the educational endeavor. And
the rigor of the research must be upheld. In the US, the National Institute of Nursing Research (NINR) has identified areas of research the results of which will help move us into the next decades. (NINR, 2011) They are: to enhance health promotion and disease prevention, improve quality of life by managing symptoms of acute and chronic illness, improve palliative and end-of-life care, enhance innovation in science and practice, and develop the next generation of nurse scientists, which will help move us into the next decades. (NINR, 2011) They are: to enhance health promotion and disease prevention, improve quality of life by managing symptoms of acute and chronic illness, improve palliative and end-of-life care, enhance innovation in science and practice, and develop the next generation of nurse scientists. NINR now focuses its mission on the science of health, which focuses on the promotion of health and quality of life. The science of health is based on the premise that individuals would benefit from being actively involved in maintaining their own health through the prevention of disease and the direct participation in the management of illness. In the U.S., self-care is still thought of as patients doing their own medical treatments, a very limited conceptualization.

Another issue is how disciplinary knowledge development will emerge in an era of interdisciplinary collaboration? Parse (2012) says “Collaboration by nurse researchers with interdisciplinary colleagues is useful only if it is true collaboration, where the voice of nursing is clearly evident in the conceptualization of the research studies and where the findings enhance understanding of the phenomena embedded in the theoretical basis of nursing” (p. 125).

Conclusion
There are some things that have not changed, that are enduring. These include the importance of nursing to patients and families, and the trust they place in nurses, the cooperative nature of health care within the complex of person/family, community and health care providers, i.e. nurses, physicians and others, in developing and providing service - and most importantly, understanding of what is the essence of nursing and the contributions nursing can make to society. While there have been changes in the accidents of nursing, i.e. the describing characteristics, the essence or substance of nursing has not changed and should not be allowed to change. But it does need to be formalized and made known.

The future will continue to bring greater technological change that will need to be incorporated into a care system that has as its goal the health and well-being of individuals. Continued development of the integrated science of self-care and action programs to improve self-care capabilities could do much to improve the human condition. The use of a conceptual framework reflecting the concerns of nursing, through nursing theory and nursing science, must take precedence over theory derived from conceptual frameworks associated with related disciplines. While there is a push for interdisciplinary collaboration, we can only be collaborative when we bring our unique disciplinary perspective to the endeavor.

These projections are logical considering where we’ve been, how we’ve gotten to where we are. The difficulty is that they are mostly idealized without consideration of context. We are in the midst of difficult economic times. In the U.S. there is much disagreement about the direction health care should take; much will depend on the outcome of our elections in November. Though we are in a time of accelerating change, it might be nice if we could slow down, let us live with what we have for a while, let our human systems catch up, let us see what some of the effects of these changes are on our health and well-being. Let us see what is important to our existence as persons. ■

References


Final Report on Project Funded by the Sarah E. Allison, Inc Foundation:

Advancing the Introduction of the Self-Care Deficit Nursing Theory into Vietnam by Supporting the Scholarly Productivity of Vietnamese MSN Graduates of the University of Medicine and Pharmacy at Ho Chi Minh City and Teaching an Introduction to Nursing Theory to BSN Students

Violeta A. Berbiglia MSN, EdD,RN

Purpose

The specific aim of this project was to support an ongoing nursing research and scholarship initiative utilizing the Self-Care Deficit Nursing Theory (SCDNT) framework in Vietnam. The initiative was two-pronged: one, the fostering of SCDNT-framed nursing research in Vietnam, and two, the mentoring of Vietnamese BSN students in the understanding and use of the SCDNT. The overall goal was the improvement of nursing practice and nursing education in Vietnam through the theoretical guidance of the SCDNT. The project was completed Spring, 2011.

Funding

This project was funded by the SEA Foundation, Inc, the Friendship Bridge Nurses Group, and Madison Square Presbyterian Church of San Antonio, TX.

Background

A base for this initiative was established by my introducing post graduate and MSN students to the SCDNT in all nursing courses I taught in Vietnam for the Friendship Bridge Nurses Group 2000 through 2009. Subsequently, the SCDNT was incorporated into MSN level research. While in Ho Chi Minh City for the Theses Defense, I offered a 4 hour class on Introduction to Nursing Theory to the BSN third year students of the University of Medicine and Pharmacy. The Theory of Dependent-Care was featured.

Two of the MSN graduates, Luu Thi Thuy and Vu Thi La, joined me in Bangkok to present their SCDNT guided research at the 11th IOS World Congress.

Significance

This initiative clearly supported the introduction of a beginning foundation for SCDNT-based practice, research and education in Vietnam. A second initiative, supported by donors from the USA and Germany, was pursued in 2012. We fully supported Luu Thi Thuy to present her research at the 12th IOS World Congress in Luxembourg. Her paper is published in this issue.

Luu Thi Thuy, a respected nursing educator and Deputy-Director of the Nursing Department of National Technical College of Medicine, Na Nang City, Vietnam, is being provided excellent opportunities for professional growth. The director of her department and others are making it possible for her to begin doctoral studies soon. Thuy and I appreciate the professional opportunities made possible by the funding from the Sarah E. Allison Inc Foundation and other supporters in the USA and Germany.
Nursing in Armenia has been historically perceived as an important aspect in medicine. However, during the 70 years of being a part of the Soviet Union, Armenia adopted a strong opinion that nurses should receive college level education rather than a university degree. Until the last 15 years, all the educational institutions in the country have been public ones. There was a universal educational program for nurses which allowed pupils of the 8th grade and higher (while there was a 10-year education program at schools) to enter a medical college and become qualified as a nurse upon graduation.

Saint Theresa Medical University, in 1996, was the first private university to receive a license to offer a university degree for nurses. During 1996 - 1999 there was a department of nursing at Saint Theresa Medical University producing graduates who became the first nurses with a university degree in Armenia. In 1999, the license terms of this department of the Saint Theresa Medical University were amended by the Ministry of Education to replace the concentration field of “nursing” to “management in medical sphere”. Since then, the higher educational institutions of Armenia (public and private) have offered only a college degree for nurses, in accordance with the standard requirements of the Ministries of Education and Healthcare of the country.

In addition to the standard educational program approved at the state level for nursing education, Saint Theresa Medical University provides extended courses for nurses to allow them get a deeper knowledge and skills of their future profession. These courses include an introduction to the Self-Care Deficit Nursing Theory.
CALL FOR PAPERS

Self-care, Dependent-care, & Nursing (SCDCN) is the official journal of the International Orem Society for Nursing Science and Scholarship. The editor welcomes manuscripts that address the mission of the Journal.

Mission:
To disseminate information related to the development of nursing science and its articulation with the science of self-care.

Vision:
To be the venue of choice for interdisciplinary scholarship regarding self-care.

Values:
We value scholarly debate, the exchange of ideas, knowledge utilization, and development of health policy that supports self-care and dependent-care.

Author Guidelines

Manuscript Preparation

Use Standard English. The cover page must include the author’s full name, title, mailing address, telephone number, and eMail address. So that we may use masked peer review, no identifying information is to be found on subsequent pages. Include a brief abstract (purpose, methods, results, discussion) followed by MeSH key words to facilitate indexing. The use of metric and International Units is encouraged. Titles should be descriptive but short. Full-length articles should not exceed 15 double-spaced pages. Use of the Publication Manual of the American Psychological Association (5th ed.) is strongly encouraged but not mandatory. When required by national legal or ethical regulations, research-based manuscripts should contain a statement regarding protection of human subjects.

Review Process

Manuscripts are reviewed anonymously. One author must be clearly identified as the lead, or contact author, who must have eMail access. The lead author will be notified by eMail of the editor’s decision regarding publication.

Intellectual Property

Authors submit manuscripts for consideration solely by SCDCN. Accepted manuscripts become the property of SCDCN, which retains exclusive rights to articles, their reproduction, and sale. It is the intention of the editor to facilitate the flow of information and ideas. Authors are responsible for checking the accuracy of the final draft.

Submission

Manuscripts are to be submitted in MS Word format as an eMail attachment to editor, Dr. Violeta Berbiglia at violetaberbiglia@hotmail.com. Submissions will be immediately acknowledged. It is assumed that a manuscript is sent for consideration solely by SCDCN until the editor sends a decision to the lead author.
Call for New Scholar Papers

The purpose of the New Scholar Papers feature is to foster the advancement of nursing science and scholarship in the area of Orem's Self-Care Deficit Nursing Theory through the recognition of developing scholars.

New Scholar Qualifications:
- Member of the International Orem Society (Contact Dr. Anna Hanavan at dr.a.j.hanavan@live.com to become a member)
- Enrollment in nursing graduate studies
- Scholarly productivity related to the advancement of nursing science and scholarship in the area of Orem's Self-Care Deficit Nursing Theory

Recognition of New Scholars:
- Each New Scholar will be featured in an issue of SCDC&N. The IOS will award the scholar a complimentary membership.

Submission of Papers:
Papers will be submitted using the Guidelines for Authors.

IOS Scholarship Research Grant

The International Orem Society is pleased to offer funding to support projects for the Advancement of Nursing Science and Scholarship.

Purpose
The purpose of this funding opportunity is to promote the advancement of nursing science and scholarship in the area of Orem's Theory of Self-Care Deficit Nursing. Priority is given to projects that will lead to further advancement of knowledge for the discipline of nursing.

Eligibility Criteria
- Applicants must be members of the International Orem Society (IOS)
- Applicants must be ready to implement research project when funding is received and agree to publish the results.

Grants available: One per year
Amount: $2,500
Deadline: October 1 of each year
Date of notice of the grant: November 15

Because funds are limited, they may not be used for salary for grant applicants or institutional overhead. They may, however, be used to hire research assistants. Funds may also be used for consultants, essential equipment and supplies, telephone, necessary travel, and other relevant costs. All budget items should be justified with brief, clear rationale.

How to apply?
- Applicants must submit a completed research proposal, signed research agreement, and CV to:

Barbara Banfield, 34010 Ramble Hills Drive, Farmington Hills, MI 48331 E-Mail: bebanfield@aol.com

New Scholar Papers

The purpose of the New Scholar Papers feature is to foster the advancement of nursing science and scholarship in the area of Orem's Self-Care Deficit Nursing Theory through the recognition of developing scholars.

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- Each New Scholar will be featured in an issue of SCDC&N. The IOS will award the scholar a complimentary membership.

Submission of Papers:
Papers will be submitted using the Guidelines for Authors.
The **Sarah E. Allison Foundation, Inc** is a small private foundation established in December 2000 for the purpose of promoting and supporting the continuing development and formalization of the practical science of nursing based on Dorothea E. Orem’s conceptualizations about nursing. Small grants will be given to encourage and promote scholarly activities and studies in nursing for the advancement of nursing knowledge and improvement of nursing practice and nursing education based on Orem’s general theory of nursing, the self-care deficit nursing theory, and the associated foundational nursing sciences.

**Areas of Interest:** The Foundation seeks to:

1. Give priority to interpretive integrative review and synthesis of what is known in relation to conceptualizations associated with the self-care deficit theory of nursing, for example, a specific self-care requisite, bringing together disparate pieces of knowledge that create a new whole.
2. Support a new nursing research initiative within the framework or related theoretical frameworks of the self-care deficit nursing theory and the foundational nursing sciences.
3. Support the development of working groups seeking to advance the theory and produce working papers suitable for publication; for example, facilitate the formation of groups of young scholars in establishing networks working toward further development of the theory.
5. Provide seed money for pilot work of those seeking larger grants or partially support work in cooperation with other funding agencies, such as the International Orem Society for Nursing Science and Nursing Scholarship.

**Grants Available**

One or more grants may be provided per year ranging in amount from $1000 to $5000 dependent on available monies and the merit of the project in relation to the areas of interest of the Foundation.

**Criteria for Awards**

Grants will be made to individuals demonstrating apparent scholarly merit in terms of the following:

1. Knowledge of the Self-Care Deficit Theory, its conceptual components, and their relationship(s) to other bodies of knowledge and/or Orem’s other conceptualizations
2. Sound methodology
3. Potential contribution to further development of the theory and nursing knowledge
4. Proposed project can be carried out within a reasonable time limit in relations to funds requested for the project
5. The findings and results of the work will be published within a reasonable length of time as determined by the Grants Award Committee.
6. Eligible recipients are professional nurses or nursing students who meet the foregoing criteria. However, the Foundation will place greater priority on persons who are members of the International Orem Society.
7. No restrictions or limitations on awarding grants will be based on race, ethnicity, gender, sexual orientation, religion, and employment status of a prospective recipient.
8. If the proposal involves human subjects, documentation of the proposal’s acceptance by the appropriate institutional review body must be submitted prior to receipt of the award.
9. A report of the project’s progress, findings and/or accomplishments must be submitted to the Foundation at the end of the award year.
10. Any subsequent publication of the work and results emanating from the funded project must acknowledge support from The Sarah E. Allison Foundation, Inc.

**Time Frame**

Grants are awarded on a yearly basis only. If a project requires more than one year, reapplication must be made each year. The deadline for submission is April 1st of each year. Grant award notification will be made in July followed by funding in August.

**Funding Limitations**

A budget for the project must be submitted. Note: The Foundation does not provide any indirect cost reimbursement, such as for salaries, office space, etc. and will not consider such costs in an award. Where funds requested to partially support work to be done in conjunction with other funding support, any additional funds should be included in the budget along with the potential expected date of funding. Foundation grants given
in association with other accepted funding sources will be provided only when the applicant submits a receipt of the award notification from the other funding source(s).

Application
The applicant should submit a brief biographical sketch of the principal investigator indicating knowledge and experience and, in particular, qualifications in relation to study of and application of the self-care deficit theory of nursing and related theories.

Give the title and briefly describe the specific aim, background and significance of the project, methods/procedures proposed, plan of work/time line and budget. Any references cited in the proposal must use the American Psychological Association format.

Applications should be submitted in Microsoft Word as an e-mail attachment to the address given below:

The Sarah E. Allison Foundation, Inc.
260 Eastbrooke II
Jackson, MS 39216-4716
Email: FOUNDATION SEA@aol.com

Orem Collection in the Alan Mason Chesney Medical Archives at Johns Hopkins University Medical Institutions

Below are the links for The Dorothea Orem Collection, which is now live on the Alan Mason Chesney Medical Archives at Johns Hopkins University Medical Institutions website:
http://www.medicalarchives.jhmi.edu/papers/orem.html

Complete Finding Aid:
http://www.medicalarchives.jhmi.edu/finding_aids/dorothea_orem/dorothea_oremd.html

The related Joan Backscheider Collection description is also available.
http://www.medicalarchives.jhmi.edu/papers/backscheider.html

Complete Finding Aid:
http://www.medicalarchives.jhmi.edu/finding_aids/joan_backscheider/joan_backscheiderd.html
Self-Care Science, Nursing Theory and Evidence-Based Practice

By

Susan G. Taylor (Former President of the International Orem Society) & Katherine Renpenning (President of the International Orem Society)

This book explores Orem’s self-care deficit nursing theory as a foundational theory of the science of self-care, and how this understanding can improve patient outcomes as well as cost-effectiveness of nursing care delivery. Written for nursing theorists, researchers, administrators, and graduate students, the text addresses the relationship of self-care theory and evidence-based care in nursing, and provides a solution to improving contemporary healthcare outcomes.

Key Features:

- Includes case examples to illustrate the application of theory to nursing practice
- Provides a current, cost-effective resource for implementing Orem’s Self-Care Deficit Theory for effective evidence-based practice
- Builds the link between the application of Orem’s Self Care Theory and improved patient and fiscal healthcare outcomes


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