IMPROVING HEALTH LITERACY IN OLDER ADULTS

IMPROVING PATIENTS’ HEALTH LITERACY LEVEL AND ABILITY TO TAKE THEIR MEDICATION AS PRESCRIBED

by

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Abstract

Community health nurses responsible for managing the care of sick patients have a responsibility in knowing how to prevent the progression of diseases and the promotion of self-management skills. Implementing a positive change in how patients manage their health condition requires the commitment of the patient and the health care provider. Many patients face challenges with understanding how to respond to health information provided to them. Community health nurses that are properly trained in communicating with their patients can collaborate with the patient to develop an individualized plan that meets patients’ health literacy levels. The issue of low health literacy has been linked to increased health care expenditures, and associated with the patient using more resources. This project focused on empowering participants to communicate effectively with their health care provider and learn how to navigate through today’s complex health care environment. The aim of this quality improvement project was to improve how adults over 50 manage their antihypertensive medication(s) at home. The results of the project revealed that participants could read directions on a prescription label, but lacked communicative skills to know when to contact the doctor concerning their medical diagnosis or their prescribed medications. Nurses working with patients in a community setting also need to incorporate strategies that empower patients to be integral members of the health care team. There is a need to breakdown communication barriers that assume that the health care provider has given the patient the appropriate health information.

Key words: Health literacy, adherence, self-management, older adults, and medication management medication non-adherence, gerontology.
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Improving Health Literacy in Older Adults

Patients’ clinical outcomes can be influenced by failure to follow directions when taking medications, this behavior can lead to disease progression, increased cost of health care and early death (Pasina et al., 2014). According to the Patient Protection and Affordable Care Act of 2010, Title V, health literacy is described as the degree that allows a person to process, comprehend, obtain health data, and seek medical services to help the patient make appropriate health choices. (Centers for Disease Control and Prevention [CDC], 2016, para, 1). The lack of health literacy can lead patients to not adhering to their prescribed medical care. Not adhering to prescribed medical care can include not knowing how to fill out complex health forms, locating health services and providers, sharing health data, initiating self-care, and comprehending concepts related to health risk (United States Department of Health and Human Services [USDHHS], 2010). According to the National Academy on an Aging Society (n.d) low health literacy has been linked to increasing the annual health care expenditures by $73 billion, and this increase has been linked to patients with low health literacy utilizing more health care services.

The National Council on Aging (n.d) found that 80% of older adults are diagnosed with at least one chronic condition, 68.4% of recipients of Medicare benefits have two or more chronic conditions, while 36.4% have been diagnosed with four or more chronic health conditions. Having one or more chronic health conditions can have an effect on the individual’s ability to manage important activities of daily living. According to the Centers of Disease Control (2015) 71% of adults over age 60 had difficulty using printed material, 80% had difficulty in signing forms or charts, and 68% had difficulty knowing how to interpret numbers and perform calculations. Theses challenges can easily be transferred to patients who have difficulties with understanding how to manage their disease process and prescribed medications.
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The issue of poor health literacy associated with taking prescribed medications has several barriers that require strategic individualized techniques to help improve patients’ health outcomes (Jimmy & Jose, 2011). The complexity leading to patients not taking their medication as prescribed is the result of many contributing factors ranging from: the patient’s perception concerning the need for the medication, patient’s illness characteristics, social context, patient access to medication, and the services available for the patients (Jimmy & Jose, 2011).

Nurses, physicians, and pharmacists have to collaborate together as an interdisciplinary team to help older patients improve the patient’s medication adherence. The issue of poor health literacy leading to patients not adhering to their prescribed medication continues to be an economic and social burden to society. Sanders and Van Oss (2013) found medication non-adherence could also be associated with patients having episodic non-adherence. Episodic non-adherence refers to the patient forgetting to take medication at the right time and on the correct day. Each older patient must be treated as an individual when developing medication health literacy strategies.

Background

According to National Quality Forum (2011) more than half of the older adults living in the United States are taking at least three to four prescription medications to treat chronic illnesses and age-related physiological changes. By 2040, one fifth of the United States population will be considered older adults (Sattler, Lee, & Perri, 2013). There is a need to develop a plan to explore how nurses and other health care providers promote healthier outcomes for adults over 50 responsible for taking prescribed medication. According to Chi et al. (2012), five core abilities are needed to ensure that a patient takes medication correctly. The core abilities include the patients’ ability to express clearly to their health care team any personal conditions; the cognition
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to comprehend the information on the medication packages; the knowledge of how to correctly
take medication as ordered, the ability to master taking their medication independently, and the
ability to communicate with the pharmacist and other health care professionals.

Luga and McGuire (2014) found there was a need to create a collaborative plan between
payers, policy-makers, patients, and providers to help redesign a system that incorporates team-
based care and a lower cost of medication. This collaboration led to achieving better medication
adherence and optimizing cost (Luga & McGuire, 2014). According to United States
Department of Health and Human Services (2010) a national action plan on health literacy
should focus on providing the following services: providing appropriate health services,
educating patients, creating and disseminating data, delivering services through community
organizations and non-profit organizations, and collaborating with other sectors (USDHHS,
2010).

Healthy People 2020 (2016) found many of the chronic health conditions older adults suffer
from include: arthritis, heart failure, dementia, and diabetes. Many adults over age 50 are taking
prescription medication(s) to help manage their hypertension. Managing an older adult’s
illnesses and chronic conditions requires that health care providers collaborate with the older
adult to determine which outcome will yield the best solution. Knowing how to manage chronic
illnesses can help identify potential risk in providing care for the older population (National
League of Nursing [NLN], 2011).

**Purpose**

The purpose of this project was to identify how developing health literacy strategies for adults
over the age of 50 can assist community nurses in creating practical skills to help the older adults
in improving their clinical outcomes. According to Sanders and Oss Van (2013), older adults
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effectively manage their medication when they remember to take the medication at the correct
time, know the location of the medication, understand the correct dosage, and utilize the proper
equipment/support needed to take the prescribed medications.

Methodology

A convenience sample of 10 adults over the age of 50 was selected to participate in a 4-week
health literacy workshop. The workshop focused on teaching the participants on how to properly
manage their diagnosis of hypertension through diet, exercise, communication with health care
providers and other evidence-based literature concerning self-management. Each workshop
session was two hours. Each participant was asked to complete a pre-health literacy test prior to
starting the workshop. A post health literacy test was administered at the end of the four-week
workshop. To assist in assessing the participant’s health literacy level, Pfizer Health Literacy
Tool-The Newest Vital Sign was used (Pfizer, 2011). After each session, reminder sheets were
given reviewing information taught. Each participant received a folder with contact information,
drawstring book-bag, automatic blood pressure device, self-monitoring blood pressure log, pill
organizer, and a personal medication booklet-listing prescribed medication, health care providers
contact information (physician, pharmacist, nurse, therapist), a list to place lab vales (AIC levels,
cholesterol results, and blood pressure results) and a separate area to allow the patient to list
medical condition(s).

Participants: Adults age 50 years and older participating in a senior community center
volunteered for the workshop.

Privacy: Confidentially was maintained by attaching codes to any identifiers that could be linked
to individual participants.

Inclusion Criteria: Ability to read and write English and be able to visually comprehend
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supportive visual aides, and taking at least one antihypertensive medication to manage their high blood pressure.

**Exclusion Criteria:** All participants must be the responsible party for managing their prescribed anti-hypertensive medication(s) without formal support such as: caregiver(s) living in the home, home-health aide, or visiting community health nurses coming to the home. All participants must complete the entire educational series of classes and complete the pre and posttest administered.

**Theoretical Framework**

The transtheoretical model of change created by James Prochaska provided the framework for the project (Prochaska, & Velicer, 1997). The Transtheoretical Model of Change includes a systematic five-stage process to determine an individual’s readiness for change (Prochaska, & Velicer, 1997). According to Lee, Hyeoun-Ae, and Minn (2015) the core concepts of the transtheoretical model are based on the participant engaging in various stages of change. These stages can be based on the participant beginning to process the need for change, deciding to make the change and eventually reaching self-efficacy. Several studies have examined the applications of the Transtheoretical Model as a way to predict the behavior of individuals participating in studies.

**Results**

Among the twelve participants only 10 completed all required material to be included in the data analysis. The data analysis revealed inconsistencies with the pre and post literacy test. The pre-test revealed that 90% of the participants score between 4-6, and 10% scored 0-1.

The post-test revealed that 100% of participants’ scores were between 4-6; a score of 4-6 determines that the participants can effectively read a prescription label.
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The comments during the workshop suggested the participants were not as sufficient in comprehending significant safety measures associated with reading a prescription label.

The use of the Transtheoretical Model of Change reflected a more diverse understanding of behavioral changes expected from the participants. The workshop revealed that 20% of participants believed that they were committed to following all prescribed orders of their health care provider, and the other participants were seriously contemplating implementing changes within their health regimen. One of the noted strengths of this type of interpersonal workshop is related to participants feeling non-threatened in order to share their true health habits when managing their chronic diseases. Demographical data was also collected on the participants’ (See Figures 1-6)

Figure 1
Age Participation
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Figure 2
Language

Figure 3
Educational Level
Figure 4
Race/Ethnicity

Figure 5
Marital Status
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During the four-week two-hour session workshop, many of the participants were asking questions, which did not correlate with the participant’s high pre-test health literacy score. Listed below are a few comments/questions that were asked during the workshop.

- “Is a water pill the same as a high blood pressure pill”?
- “Do I still need to check my blood pressure if I am taking blood pressure medication”?
- “Does a water pill keep the water inside of you”?
- “Do I need to record my pulse and my blood pressure”?
- “I did not know I should also ask my doctor questions concerning how long will I have to take the high blood pressure medication”.
- “I just leave my medications bottle open”
- “I did not know I should ask my doctor, if I would need this medication for the rest of my life?”

Listed in (Figure 7) are the results of the pre and post health literacy test. The purpose of administering the test was to determine if participants’ ability to read a prescription label had an influence on the participant’s pre and post health literacy test.

Figure 6
Participants’ Health Literacy Score
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Discussion

Health care providers responsible for managing the care of adults over 50 must have a comprehensive understanding concerning the challenges associated with older adults taking their prescribed medications. The focus of any intervention created to improve patients’ health literacy should focus on the patient’s cognitive, physical and emotional abilities to comprehend the orders provided by the prescriber. Strategies implemented to improve the patient’s health literacy levels should focus on the following domains: planning, patient’s literacy levels, layout and typography, and the use of supportive pictorial graphics that can explain to the patient the provider’s desired outcome (Jacobson & Parker, 2014). Due to the time constraints of the project it is suggested that future workshops also only provide a monthly class that meets one day a week for four weeks, and provide additional follow-up in the participants’ home to determine if the concepts are being transferred into the participants’ daily schedule.

Conclusion

Faith community nurses have an opportunity to improve the health of their patients and the community they serve. When faith-based community health nurses pay close attention to the patients’ health literacy level the patient is provided with the appropriate health information based on the patients’ level of understanding. Communicating with the patient on their level of understanding can determine the best communication technique to use when discussing health related issues with the patient. Creating non-threatening health related workshops in the community could provide an opportunity to improve population health and determine the appropriate health strategies that can be implemented into patients’ daily routine to encourage healthy self-management techniques.


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APPENDIX A
STATEMENT OF ORIGINAL WORK

Academic Honesty Policy

Capella University’s Academic Honesty Policy (3.01.01) holds learners accountable for the integrity of work they submit, which includes but is not limited to discussion postings, assignments, comprehensive exams, and the dissertation or capstone project.

Established in the Policy are the expectations for original work, rationale for the policy, definition of terms that pertain to academic honesty and original work, and disciplinary consequences of academic dishonesty. Also stated in the Policy is the expectation that learners will follow APA rules for citing another person’s ideas or works.

The following standards for original work and definition of plagiarism are discussed in the Policy:

Learners are expected to be the sole authors of their work and to acknowledge the authorship of others’ work through proper citation and reference. Use of another person’s ideas, including another learner’s, without proper reference or citation constitutes plagiarism and academic dishonesty and is prohibited conduct. (p. 1)

Plagiarism is one example of academic dishonesty. Plagiarism is presenting someone else’s ideas or work as your own. Plagiarism also includes copying verbatim or paraphrasing ideas without properly acknowledging the source by author, date, and publication medium. (p. 2)

Capella University’s Research Misconduct Policy (3.03.06) holds learners accountable for research integrity. What constitutes research misconduct is discussed in the Policy:

Research misconduct includes but is not limited to falsification, fabrication, plagiarism, misappropriation, or other practices that seriously deviate from those that are commonly accepted within the academic community for proposing, conducting, or reviewing research, or in reporting research results. (p. 1)

Learners failing to abide by these policies are subject to consequences, including but not limited to dismissal or revocation of the degree.

I have read, understood, and abided by Capella University’s Academic Honesty Policy (3.01.01) and Research Misconduct Policy (3.03.06), including the Policy Statements, Rationale, and Definitions.

I attest that this dissertation or capstone project is my own work. Where I have used the ideas or words of others, I have paraphrased, summarized, or used direct quotes following the guidelines set forth in the APA Publication Manual.

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