Development of web-based learning modules for caregivers of persons with stroke

Kelly Blickensderfer
Medical University of Ohio

Follow this and additional works at: http://utdr.utoledo.edu/graduate-projects

This Scholarly Project is brought to you for free and open access by The University of Toledo Digital Repository. It has been accepted for inclusion in Master's and Doctoral Projects by an authorized administrator of The University of Toledo Digital Repository. For more information, please see the repository's About page.
Development of Web-based Learning Modules for Caregivers of Persons with Stroke

Submitted by
Kelly Blickensderfer

In partial fulfillment of the requirements for the degree of
Master of Science in Nursing

Date of Presentation:
December 12, 2005

Major Advisor
Linda Pierce, Ph.D., R.N.

Academic Advisory Committee
Barbara Hicks, MSN, R.N.
Victoria Steiner, Ph.D.

Dean, College of Nursing
Jeri A. Milstead, Ph.D., R.N., FAAN

Dean, College of Graduate Studies
Keith K. Schlender, Ph.D.
Development of Web-based Learning Modules for Caregivers of Persons with Stroke

Kelly Blickensderfer

Medical University of Ohio

2005
Dedication

I wish to dedicate this scholarly project to my family and friends who are always there to listen and support me.
Acknowledgement

I would like to acknowledge the assistance and guidance of Dr. Linda Pierce, Dr. Victoria Steiner, and Ms. Barbara Hicks, MSN, RN.
<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication ........................................................................................................... ii</td>
<td></td>
</tr>
<tr>
<td>Acknowledgement ................................................................. ....................................... iii</td>
<td></td>
</tr>
<tr>
<td>Table of Contents ................................................................. ....................................... iv</td>
<td></td>
</tr>
<tr>
<td>List of Figures .................................................................................................. vii</td>
<td></td>
</tr>
<tr>
<td>List of Tables ................................................................................................. viii</td>
<td></td>
</tr>
<tr>
<td>Chapter 1: Introduction ................................................................. ....................................... 2</td>
<td></td>
</tr>
<tr>
<td>Statement of the Problem ................................................................. ....................................... 3</td>
<td></td>
</tr>
<tr>
<td>Statement of Purpose ................................................................. ....................................... 3</td>
<td></td>
</tr>
<tr>
<td>Nursing Conceptual Framework ................................................................. ....................................... 4</td>
<td></td>
</tr>
<tr>
<td>Significance ................................................................................................. ....................................... 5</td>
<td></td>
</tr>
<tr>
<td>Summary of Chapter ......................................................................................... ....................................... 5</td>
<td></td>
</tr>
<tr>
<td>Chapter 2: Review of Literature ................................................................. ....................................... 6</td>
<td></td>
</tr>
<tr>
<td>Theoretical Framework ......................................................................................... ....................................... 6</td>
<td></td>
</tr>
<tr>
<td>Literature Review ................................................................................................. ....................................... 8</td>
<td></td>
</tr>
<tr>
<td>Research Literature Review ......................................................................................... ....................................... 10</td>
<td></td>
</tr>
<tr>
<td>Adult Education Literature Review ......................................................................................... ....................................... 16</td>
<td></td>
</tr>
<tr>
<td>Summary of Chapter ......................................................................................... ....................................... 19</td>
<td></td>
</tr>
<tr>
<td>Chapter 3: Method ................................................................................................. ....................................... 20</td>
<td></td>
</tr>
<tr>
<td>Design ......................................................................................................................... ....................................... 20</td>
<td></td>
</tr>
<tr>
<td>Setting/Target Population ......................................................................................... ....................................... 20</td>
<td></td>
</tr>
<tr>
<td>Materials/Data Collection ......................................................................................... ....................................... 21</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H: Critique for Caregiver Review of Learning Modules..........................72
Appendix I: Caregiver Cover Letter......................................................................73
Abstract..................................................................................................................74
List of Figures

Figure 1: Conceptual map of concepts used in this project…………………………………….9
List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1: Four experts’ review of the learning modules</td>
<td>25</td>
</tr>
<tr>
<td>Table 2: Two caregivers’ review of the learning modules</td>
<td>26</td>
</tr>
</tbody>
</table>
Chapter 1

Introduction

Stroke is the leading cause of adult disability in the United States. Every year approximately 750,000 Americans have a stroke (National Stroke Association, 2004). Today more than four million stroke survivors are alive. Stroke is the most common life-threatening neurologic disease that affects older adults (Eaves, 2000). After initial hospitalization and stroke rehabilitation, 80% of stroke survivors return to the community, relying on their family members for emotional, informational, and instrumental support for their daily living (Anderson, Linto, & Stewart-Wynne, 1995). Approximately 68% of all stroke survivors require care in the home by family members (Bakas, Austin, Okonkwo, Lewis, & Chadwick, 2002). It is argued that informal caregivers are the backbone of the service provided to surviving individuals with stroke (Bugge, Alexander, & Hagen, 1999).

The physical, psychological, and cognitive changes that can accompany stroke may create considerable problems for those families caring for the person affected by stroke. The support of caregivers can impact whether individuals with stroke remain outside of traditional medical and rehabilitative care (Pierce, Rupp, Hicks, & Steiner, 2003). Educating survivors of stroke and their caregivers is important to prevent further strokes and to assist the caregivers in providing care. Therefore, there is a need to present useful educational information based on the identified needs of these caregivers. This can be demonstrated by developing learning modules based on identified informational needs of caregivers framed within the self-care deficit theory of nursing by Orem (2001). Since the Internet is becoming an avenue for quick and reliable information, one means of disseminating these learning modules is through the creation of Web pages.
Statement of the Problem

It is a responsibility of healthcare professionals to educate survivors of stroke and their caregivers to help them care for themselves and prevent future strokes (Pierce, Finn & Steiner, 2004a). Following discharge to home, caregivers are attempting to cope with the functional, cognitive, and emotional consequences of a stroke. At the same time, therapeutic regimens must be adapted to the realities of social, environmental, and family demands (Grant, 1996). Caregivers themselves have to cope with the devastating effects the stroke had on their loved one, while increasing demands are made on them. Many caregivers will be better able to adapt to the long-term consequences of stroke, if they receive meaningful help to successfully adjust to the realities of caring (Pierce, Steiner, Hicks, Thompson, & Friedemann, 2004b). Caregivers need information about potential stroke-related problems, and they need to know how to obtain the necessary help and support when problems occur. Assessment of the caregiver’s own medical, social, and emotional status could be included as part of the routine follow-up activities of a stroke service (Anderson, et al., 1995). Using the most frequent informational needs of these caregivers and providing them with the resources through Web-based education may help to improve the caregivers’ ability to provide care and decrease the risk of complications for the individual with stroke.

Statement of Purpose

The purpose of this project is to develop four learning modules for caregivers of persons with stroke who participate in a Web-based intervention of education and support called Caring~Web©. Caring~Web© provides support through four primary mechanisms:

1) An opportunity to ask a nurse specialist and rehabilitation team questions or discuss
issues related to caring; 2) Caretalk, a non-structured email discussion group that connects caregivers to other caregivers and to the nurse specialist; 3) Customized educational information; and 4) Educational links to information about stroke, caring, and caregivers from reputable Web sites (Steiner & Pierce, 2002).

The content of the learning modules for Caring-Web© is based on previous research where registered nurses, caregivers, and allied health professionals identified information needs of caregivers of persons with stroke (Cook, Pierce, Steiner & Hicks, in-press; Pierce et al., 2003; Pierce, et al., 2004b). The learning modules will become part of the customized educational information section on this Web site. Each learning module will include learning objectives, a pre-assessment, content information on a topic related to an identified need, and a post-assessment to test the knowledge the participants gained.

Nursing Conceptual Framework

Orem’s (2001) self-care deficit nursing theory was identified as the conceptual framework for this project. Orem noted that universal self-care requisites (USCRs) are needs that are basic and common to all humans and are constantly present. When individuals experience a stroke, they may be unable to meet all of their USCRs and may have a self-care deficit (Pierce, et al., 2003). Caregivers of individuals with stroke, dependent care agents in Orem’s terms, assist in meeting the USCRs of individuals with self-care deficits following stroke (Pierce, et al.) as well as deal with their self-care issues. The learning modules developed in this project will help to provide information to assist caregivers in providing care to survivors of stroke and impact the caregivers’ self care needs.
Significance

Forty percent of persons who survive a stroke are left with some kind of disability that interferes with their performance of activities of daily living. With the large number of persons with stroke in this country and the increasing life expectancy following stroke, caregivers are often faced with practical problems, such as a lack of knowledge or information in providing care. It is the responsibility of healthcare professionals to educate these caregivers to help them with caring strategies and, also, prevent future strokes. Today, staffing shortages and decreased lengths of hospital stays lessen the interactions that take place between healthcare staff, clients, and families. Therefore, it is essential to identify information needs of caregivers and families and to develop education resources that can be disseminated in outpatient settings such as homecare, support group meetings, and information via the Internet (Pierce, et al., 2004b).

Summary of Chapter

In this chapter, the statement of the problem and the statement of the purpose were identified and discussed. Orem’s (2001) self-care deficit theory of nursing guided this project. Meeting the information needs of caregivers of persons with stroke is an essential component of advanced practice nursing, in that early discharge from in-patient hospitals and emergency department visits without an admission means that people are at risk when returning home. Caregivers of these people often experience increased burden due to a lack of adequate levels of education and support services provided.
Chapter 2

Review of Literature

In this chapter, the conceptual framework of Orem’s (2001) self-care deficit nursing theory is discussed. Knowing the information needs of caregivers of persons with stroke is essential when formulating learning modules that assist and support caregivers. The literature review presented in this chapter identified studies that focused on caring for a person with stroke, developing learning materials using Web-based education, and being an adult learner.

Theoretical Framework

Orem’s (2001) self-care deficit nursing theory guides this project. Orem’s framework is composed of a theory of self-care deficit. The theory of self-care deficit provides a combination of knowledge about self-care and dependent care. One category relevant is universal self-care requisites. Self-care requisites can be defined as the purposes of actions directed toward the provision of self-care. Those who provide self-care are self-care agents, whereas those who provide care to dependent adults are dependent-care agents (Orem).

Orem (2001) noted that universal self-care requisites (USCRs) are needs that are common to all humans and are constantly present. The eight basic needs of Orem’s USCRs include maintenance of air, maintenance of sufficient intake of water, maintenance of sufficient intake of food, provision of care associated with elimination processes, maintenance of balance of rest and activity, maintenance of a balance between solitude and social interaction, prevention of hazards and normalcy. These needs must be met to achieve optimal health. When individuals experience a health deviation, such as a
stroke and require a caregiver, they along with the caregiver, may not be able to meet their USCRs, such as emotional changes, normalcy, solitude and social interaction. These individuals may have a self-care deficit where the demand for an individual’s self-care exceeds the persons’ ability to perform self-care (Orem).

Orem’s (2001) definition of self-care combines with the ethical concept of autonomy as self-realization. Self-care implies psychological, physiological, and social activity in which one expresses and develops one’s identity that is central to the concept of autonomy as self-realization (Orem). Persons with stroke often feel confused, anxious, and insecure within the first months post-stroke, and they are heavily dependent on other people, caregivers. Therefore, a social concept of autonomy provides a better ethical framework for the rehabilitation of these people than will an individual concept of autonomy (Proot, Crebolder, Abu-Saad, & Meulen, 1998).

In relation to self-care, Orem (2001) developed the concept of dependent care. Dependent care is defined as the practice of activities that responsible, mature persons initiate and perform on behalf of socially dependent persons for some time on a continuing basis in order to maintain their lives and contribute to their health and well-being (Proot, et al., 1998). Orem described dependent care agency as the abilities of the dependent care agent or the abilities on behalf of another person aimed at meeting that person’s self-care requisites. The learning modules were developed with the focus being for the caregivers of persons with stroke. Being a dependent care agent often is difficult for the caregeiver to be able to meet their USCRs of normalcy, solitude, and emotional change.

Nursing agency is the specialized abilities of a nurse performing forms of action
used to assist the dependent care agent [caregiver] who provide care for an individual
[person with stroke] with health related self-care deficits (Orem, 2001). Through nursing
agency, the most frequent information needs of these dependent care agents can be
identified and carried out by the nursing agency by making educational information, such
as learning modules, available for them to use (George, 1985).

The conceptual map (see Figure 1) displays a person’s optimal health as a circle.
Orem’s (2001) unmet universal self-care requisites result in self-care deficits for the
caregiver and/or the person with stroke and lead to identified needs for self-care.
Dependent care agents (caregivers of persons with stroke) can utilize the developed four
learning modules based on these identified needs as they provide care for the person with
stroke and for themselves. The nursing agency (professional nurse) guides caregivers
toward optimal health that meets these universal self-care needs.

In summary, using Orem’s (2001) self-care deficit nursing theory as a guide,
learning modules were developed according to the previously identified information
needs of caregivers of persons with stroke. These modules will be incorporated into the
Caring~Web intervention that is provided to these caregivers.

Literature Review

A literature review is an account of what has been published on a topic by
accredited scholars and researchers. The purpose of this literature review is to compare
and contrast articles on the topic of caring for stroke patients, as well as caregivers’ needs
and concerns. Previous studies have documented the emotional distress for stroke
caregivers and the needs and concerns related to their physical and psychological well
being (Dennis, O’Rourke, Lewis, Sharpe, & Warlow, 1998). The literature review is
Optimal Health

Figure 1

*Conceptual map of concepts used in this project.*

divided into two sections, research literature and adult education literature. The research literature section is divided further into three sections: emotional distress in caregivers, caregiver needs and concerns and Web-based education. The adult education literature section is further divided into two sections; adult learners and design of educational materials.
Research Literature Review

Emotional Distress in Caregivers

Dennis et al. (1998) conducted a study to describe the outcome of a large group of persons identified by stroke patients as their caregivers. The study identified characteristics of caregivers that are associated with a poor emotional outcome. Using a randomized trial of 417 patients, the researchers followed up with surviving patients at six months, usually in their homes. The patients were asked to complete questionnaires including the Modified Rankin Scale, the Hospital Anxiety and Depression Scale (HAD), and the General Health Questionnaire 30 item version (GHQ-30), as well as the Frenchay Activities Index and Barthel Index. The patients’ primary caregivers completed the GHQ-30 and were given a continuance questionnaire to return later to avoid overburdening the caregivers during the first visit. Emotional distress was found to be common among those caring for patients who had suffered a stroke. Caregivers with poor physical and emotional states are likely to have poor emotional outcomes themselves (Dennis, et al.).

Kotila, Numminen, Waltimo, and Kaste (1998) performed a study to determine, from a population-based stroke register, the incidence and severity of depression among primary caregivers, three and twelve months after a stroke. The stroke register was kept in four different districts in Finland from the years 1989-1991. A total of 594 caregivers were registered for the study. The same trained study coordinator in each district interviewed the primary caregiver, conducting the Speech Scale, Barthel Index, and the Rankin Scale at onset and at three and twelve months. The Mini Mental State Exam, Albert’s test, Beck’s Depression Inventory, and quality of life assessment were
performed at onset and twelve months. The study concluded a high rate of depression was persistent in caregivers  (Kotila, et al.).

The purpose of the study by Bugge and associates (1999) was to identify the level of strain experienced by caregivers in the early months after the person they were caring for had a stroke. Assessing the relationship among caregiver strain and caregiver characteristics, as well as between patient characteristics and service inputs was also performed throughout this study. It was found that six months after the stroke, 37% of caregivers were experiencing considerable strain. Consequently, providers need to identify caregivers at risk of strain. Particularly, caregivers who spend greater proportions of time helping persons with stroke, those caring for people with more severe strokes, and those caregivers in poor health themselves should be identified.

White, Lauzon, Yaffe, and Wood-Dauphine (2004) identified the important role of family caregivers in maintaining their disabled and elderly members in the community. Caregiver research, for the most part, has explored burden and emotional distress as outcomes of the caregiving experience. There is a growing consensus among health-care researchers concerning the importance of quality of life, as an outcome. However, there is little research examining quality of life of family caregivers. White and associates developed a model including caregiving situations, characteristics of the caregiver, and environmental factors, and their proposed relationship with quality of life.

Anderson and associates (1995) identified factors associated with emotional distress in caregivers one year after a person had a stroke. Almost all caregivers reported adverse effects on their emotional health, social activities, and leisure time. More than half of the caregivers reported effects on family relationships. High levels of emotional
distress among caregivers suggested that many caregivers have unmet needs. Caregivers need information about potential stroke-related problems and they need to know how to obtain necessary help and support when the problems occur (Anderson, et al.).

Reimer, de Haan, Rijnders, Limburg and van den Bos (1998) conducted a study to describe the level and specific nature of the burden of caregiving as experienced by stroke person’s partners, and to estimate the relative contribution of person and partner characteristics to the presence of partners’ burden. The study concluded partners of persons with stroke perceived most caregiving burden in terms of feelings of heavy responsibility, uncertainty about the person’s needs, constant worries, restraints in social life, and feelings that the person relies on only their care. The study stressed the important fact that professional caregivers involved in the ongoing care of persons with stroke and their families need to be aware of the increasing demands made on caregivers and the specific problems they perceive in caregiving.

Caregiver Needs and Concerns

Bakas et al. (2002) conducted a study to determine the self-reported needs, concerns, strategies, and advice of family caregivers of survivors of stroke for the first six months after discharge from the hospital. A convenience sample of fourteen caregivers was obtained. Data were collected using five open-ended questions during interviews. The data were grouped into five areas: 1) information, 2) emotions and behaviors, 3) physical care, 4) instrumental care, and 5) personal responses to the care-giving situation. The authors identified the needs and the concerns of the participants based on these categories. The needs and concerns identified were: 1) the need for better education about the signs and symptoms of stroke; 2) the need to provide education on emotional
support and dealing with behavioral problems; 3) concerns regarding medication, mobility, falls, diet, incontinence and bathing; 4) the need for assistance with managing finances, providing transportation and assistance while the caregiver was away; and 5) concerns expressed by the caregivers in regards to their own emotional, social, and physical health. The authors concluded that the identified needs, concerns, strategies and advice may contribute to future interventions and resources for caregivers of survivors of stroke (Bakas, et al.).

Similar to Bakas and associates (2002), Pierce et al. (2004a) conducted a study to identify the self-care needs of twenty-four people dealing with stroke. The survey with forty-nine self-care needs was developed using Orem’s (2001) universal self-care requisites (USCRs). The top five self-care needs about which information was desired were: 1) preventing falls, 2) maintaining adequate nutrition, 3) staying active, 4) managing stress, and 5) dealing with emotional and mood changes (Pierce, et al.).

Pierce et al. (2003) also developed a study to identify the twelve most frequent teaching needs for survivors of stroke and their caregivers. The project was guided by Orem’s (2001) self-care deficit theory of nursing. A convenience sample of twenty-eight registered nurses were given a survey consisting of forty-nine health care topics, framed within Orem’s (2001) universal self-care requisites. The most frequent teaching need reported by the registered nurses was understanding the stroke disease process (Pierce, et al.). This supports the findings of the previous studies on caregiver needs.

Web-based Education

Alexy (2000) reviewed the need for support for homebound older adults and caregivers. Alexy stated that caregivers would be able to gain valuable information,
knowledge, confidence, and support by using computer resources. Alexy went on to discuss the advantages of both the caregiver and the healthcare professional being able to access the information presented without being in the same location and the fact that the service would be available twenty-four hours a day. This essentially would provide the caregiver with health information access on demand without delay (Alexy).

Colantonio, Cohen, and Pon (2001) described the use of support strategies such as telephone support, newsletters, and computer services among caregivers. The study revealed that interest amongst caregivers of individuals with dementia is present for education and support provided via non-traditional means, such as computers. Colantonio and associates related the need for research into how the non-traditional services should be designed, implemented, and provided to meet the needs of the individuals served.

Bass, McClendon, Brennan, and McCarthy (1998) examined two distinct components in their study of providing a computer support network to primary caregivers of individuals with Alzheimer’s disease. The first, a communication component involved interacting with other caregivers on the computer support network. The second, a solitary component included individualized learning and decision support for these caregivers. Fifty percent of the primary caregivers in this study were in the experimental group and had access to the computer network, Computer Link. The remaining fifty percent served as the control group and did not have access to the computer network. The use of the communication component was related to a reduction in strain, especially for those caregivers who reported more strain at the start of the study or those individuals who were non-spouse caregivers. Use of the solitary component reduced strain in those
primary caregivers who were living alone with the individual with Alzheimer’s disease (Bass, et al.).

Glueckauf and Loomis (2003) discussed that family caregivers of older adults with progressive dementia (e.g. Alzheimer’s disease) are faced with a variety of emotional and behavioral difficulties, such as dealing with persistent, repetitive questions, managing agitation and depression, and monitoring hygiene and self-care activities. Although professional and governmental organizations have called for the creation of community-based education and support programs, most dementia caregivers continue to receive little or no formal instruction in responding effectively to these challenges. This article described the development and implementation of Alzheimer’s Caregiver Support Online, a Web and telephone based education and support network for caregivers of individuals with progressive dementia. A select group of caregivers was asked to rate on a 5-point scale (with 1= not at all and 5= completely) the clarity, usefulness, and ease of navigation of Web site reading materials, live caregiving classes, message board, and state and national Web links. Identified changes to better fit the caregiver’s needs were in the layout of the Web sites to create a more spacious look, with less text, and increased the size of buttons to help caregivers navigate across various sections of the Web site. A gradual change from the live Internet delivery to the use of prerecorded, Web-based positive caregiving classes, followed one week later by live toll-free telephone follow-up discussion groups (Glueckauf & Loomis).

Steiner and Pierce (2002), described the development of Caring~Web©, an online, in-home intervention of support for caregivers of persons with stroke. Through specifically designed Web pages, caregivers can ask questions of a nurse specialist and
rehabilitation team, communicate with other caregivers and the nurse via email, and obtain educational information on stroke (Steiner and Pierce).

Adult Education Literature Review

Learning needs are gaps between the desired and actual level of performance (Bastable, 1997). In order to assess the needs of the adult learner, several steps can be taken. Bastable related that identifying the learner, collecting data on the learner, using the learner as a source of information, and involving the healthcare team are ways this can be accomplished. These principles were utilized in this current project for caregivers of individuals who had a stroke to design educational learning modules to meet their needs.

Adult Learners

The majority of caregivers of survivors of stroke patients are spouses or adult children. Therefore, these individuals should be considered adult learners. Understanding the characteristics of adult learners and the ways they learn are essential. Developing educational materials for adult learners should be based upon principles of adult learning. Knowles (1984) identified the adult learning principles of andragogy as a method of identifying the specialized ways adults learn. Knowles pointed out that adult learners are inherently self-directed and diverse with a variety of experiences, information, education, and identities that serve as resources. All these factors should be considered in their education. Part of this self-direction is that learners want to have some degree of control over their learning, as adults tend to be voluntary learners. Knowles further asserted that an adult learner wants to relate educational opportunities to their own experiences in life, as they tend to be realistic learners. This ideal is often seen
in adult learners when their education can be applied to activities of daily living and if the learning can relate to immediate circumstances or problems (Knowles).

Jackson and Caffarella (1994) described five characteristics of adult learners. The first characteristic is that adults have different types of life experiences that are organized differently from those of other individuals. Since most caregivers of survivors of stroke are older Americans, they have life experiences that allow them to care for the individual with stroke. Jackson and Caffarella further related that adults have differences in personal learning styles and are more likely to be actively involved in the learning process. For example, the caregivers of stroke survivors are likely to seek assistance and knowledge of how to care for the individual. Another characteristic is that adult learners look to other adults for further education regarding learning about the situation at hand. The desire to look for other resources, such as the discussion group and educational information on Caring–Web© is an example. The final characteristic presented by Jackson and Caffarella is that adults have individual responsibilities and life situations that provide a social environment that affects their learning.

One way to teach adult learners is via Web-based materials. Several years ago, Lavery and Livingston (1999) discussed promoting new computer resources and developing a program to teach using the Internet, to the target group of adult learners. It is important to provide enough information to help learners use the resources without overwhelming them with details. Another good idea is to give learners lists of useful Web sites to encourage them to come back and to keep experimenting. Several tips for teaching the Internet to adult learners were identified: 1) have at least one assistant, 2) keep the presentation and demonstrations simple, 3) plan that it will take longer than you
think, 4) provide a list of interesting and fun Web sites, 5) demonstrate what you are explaining and have a class to try it out, 6) avoid jargon when possible.

Design of Educational Materials

Serxner (2000) related that the effectiveness of Web-based educational materials depends on the suitability of the information to the reader. Materials should be easy to understand and well written to assist in increasing a person’s knowledge. Content, literacy demand, graphics, typography, learning stimulation, learning motivation and cultural appropriateness were concepts discussed by Serxner in relation to developing printed educational materials. Content involves making the material appropriate for the reason it was developed so the reader understands the importance to them. Literacy demand refers to the readability of the information. Serxner related that the readability of educational materials should be at an eighth grade level. Graphics and layout need to correctly reflect the subject matter of the material. Illustrations, layout, and information should be consistent and simple to understand in conjunction with the meaning of the information in the educational material. Typography refers to the style and arrangement of text. Serxner related that text should be easily readable for all levels and ages of readers. Materials should motivate and stimulate the individual to learn and ask questions. Lastly, materials should be developed to match the audience it is intended for. A learner will identify with the material if it is culturally appropriate, for example in the correct language for the learner (Serxner).

The National Institute on Aging and the National Library of Medicine (2002) published a checklist created to make your Web site senior friendly. The goal of this checklist is to provide guidelines for Web site design that, when implemented, will make
Web sites more accessible to all adults. Unbiased comments from older adults through focus groups, usability testing and other means, were used to evaluate the accessibility and friendliness of the Web site.

Summary of Chapter

In this chapter, the theoretical framework that supported this project was identified and discussed. The research literature relevant to this project was reviewed. Healthcare providers need to offer education and support information early and throughout the caring process, in an attempt to provide the most holistic and therapeutic care to caregivers. Caregivers identified many needs, concerns, and strategies that may be helpful as resources and future interventions. Nurses need to better recognize areas of potential caregivers’ needs and understand the importance of giving social and educational support to caregivers. Web-based educational learning methods were described in the literature review along with identified adult learning principles.
Chapter 3

Method

Caregivers need information about potential stroke-related problems, caring for stroke patients, and how to obtain the necessary help and support when problems occur. The purpose of this project was to develop four learning modules for caregivers of persons with stroke who participate in a Web-based intervention of education and support, Caring–Web©. Orem’s (2001) self-care deficit nursing theory was identified as the conceptual framework for this project. The design, setting/target population, material, data collection, and data analysis used to develop learning modules is described in this chapter. A summary concludes the chapter.

Design

Using guidelines obtained from current literature for Web-based education and utilizing principles of adult learners, four learning modules were developed. Two types of evaluations were conducted with the learning modules and revisions made accordingly.

Setting/Target Population

This project is part of an ongoing research study, using Caring–Web©, an education and support Web site for caregivers of persons with stroke. Institutional Review Board approval was obtained before any learning modules were distributed to the participants who reviewed the learning modules (see Appendix A).

A group of five caregivers of persons with stroke and a group of four experts, advanced practice nurses, from Northern Ohio, were given the modules to read and review. Each caregiver reviewed one module. The experts reviewed two modules each.
Material/Data Collection

Using previously identified needs of the caregivers from Pierce and associates (2003, 2004a), four learning modules were developed. Each of the learning modules used Arial type and 14 font. The content of the modules was presented in sections with chunks of information to allow for easy reading and was bulleted to accent particular points. The modules were developed at an eighth-grade reading level. These learning modules were all written in a similar question and answer format that included learning objectives, a pre-assessment, content information on a topic of identified need, and a post assessment to test the knowledge gained.

The four learning modules were developed to help caregivers make the transition to caring for someone with stroke. The modules are 1) Assessing Risk and Understanding Stroke (see Appendix B); 2) Being a Worry-free Caregiver (see Appendix C); 3) Caregiver Roles and Relationships (see Appendix D); and 4) Dealing with Depression (see Appendix E). The topics for these modules are based on reports from caregivers in the ongoing stroke study from the work of Pierce and associates (2003, 2004a). The caregivers reported being anxious, overwhelmed, depressed, and worried about their roles changing. Caregivers identified areas in which they wanted more information (Pierce, et al., 2003). In addition, information needs based on previous research conducted with registered nurses and allied healthcare professionals, where they identified the most important teaching needs of persons with stroke and their caregivers, was used to develop these learning modules (Cook, et al, in-press; Pierce, et al., 2004a).

The learning modules were created with the first letter of each topic following the first four letters of the alphabet. The learning module, Assessing Risk and Understanding
Stroke (see Appendix B), includes information about what a stroke is, types of strokes, signs and symptoms of a stroke, risk factors of stroke and ways to reduce risk factors. The learning module, Being a Worry Free Caregiver (see Appendix C), includes information on physical, emotional, spiritual, and financial health, and the effects of stress and relaxation techniques. The learning module, Caregiver Role and Relationships (see Appendix D), includes information on potential changes in caregiver’s roles and relationships, the importance of assigning new roles and the importance of family conference as well as outside support. The learning module, Dealing with Depression (see Appendix E), includes information on what depression is, signs and symptoms of depression, differences in depression between men and women, and the recommended course of treatments.

Review forms were developed and used by experts and caregivers to evaluate the learning modules. The review forms and two learning modules, along with the cover letter were emailed to the experts, advanced practice nurses (see Appendices F and G) and a review form, one learning module, and a cover letter were emailed to the caregivers (see Appendices H and I). The review form completed by the experts included questions about the print size, the colors being used, the reading level, the appropriateness of the content, the directions, and the appropriateness and sufficiency of the recommended Web sites. The review forms completed by the caregivers included questions about the directions, the print size, the colors, the content, and the time needed to complete the learning modules. The review forms were returned by email or mailed through the United States Postal Service.
Limitations of the Project

Limitations to this project were related to the setting and target population. Distributing the learning modules to only one group of caregivers and one group of experts, in Northern Ohio, may mean that the results are not generalizeable to other populations. The small sample size of reviewers also limited the results and findings to this project. Using only the Internet to send out the learning modules and review forms also added to the limitations of this project. Reviewers may not have been comfortable using the computer, had computer trouble, or could not open the documents once received.

Analysis

Descriptive statistics were used to analyze the expert and caregiver reviewers’ nominal data. Descriptive statistics, percentages, allow the data to be organized in ways that give meaning and insight.

Summary of Chapter

The setting and target population were discussed. Material and data collection were described. The analysis process utilizing descriptive statistics was defined.
Chapter 4

Findings

The data obtained from the evaluations of the learning modules sent to both experts, advanced practice nurses, and caregivers of persons with stroke are presented in this chapter. The feedback and change suggestions from both experts and caregivers are discussed.

Target Population

The sample size used for this project was four experts who are advance practice nurses and five caregivers of persons with stroke. All of the experts are Caucasian women who hold a master’s degree in nursing and are employed in university settings. All of the experts have experience in working with caregivers. Three of these nurses are employed as educators and one works in long-term care. Two are board certified in either rehabilitation or psychiatric nursing. All of these experts completed the reading and evaluation of two learning modules selected by the developer of the modules.

The caregivers were two male and three females (n = 5) who had completed the research study using Caring~Web© and agreed to participate in the review of the learning modules. Of these caregivers, one male and one female completed the reading and evaluation of one learning module. Both caregivers reside in northwest Ohio and are the primary caregivers for their spouses with stroke. Both caregivers are Caucasian. One of the caregivers is unemployed, while the other caregiver is employed full-time.

Results

Overall the feedback from the experts and caregivers was positive for the learning modules. However, there were some suggestions to make the learning modules more
focused to better assist the caregivers in their learning needs. The item responses on the
experts’ and caregivers’ review forms are presented in Table 1 and 2, respectively.

A value on Table 1 of 0% indicates that neither expert agreed with the item statement. Fifty percent represents that one expert agreed with the item statement and one expert did not agree with the item statement, i.e., see the column titled, “no further info. needed.” A 100% rating indicates that both expert reviewers agreed with the item statement. In Table 2, a value of 100% indicates the caregiver reviewers had total agreement with the item and 0% indicates that the caregiver did not agree with the item.

Table 1

*Four experts’ review of the learning modules.*

<table>
<thead>
<tr>
<th>LEARNING MODULES</th>
<th>print large enough</th>
<th>colors pleasant</th>
<th>reading level appropriate</th>
<th>no further info. Needed</th>
<th>no need to delete info.</th>
<th>directions easy to follow</th>
<th>web sites pertinent</th>
<th>web sites sufficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessing Risk and Understanding Stroke (n = 2)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Being a Worry-free Caregiver (n = 2)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Caregiver Roles and Relationships (n = 2)</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Dealing With Depression (n = 2)</td>
<td>100%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Note: Percentages represent agreement with item.
Table 2

Two caregivers’ review of the learning modules.

ITEMS ON REVIEW FORM

<table>
<thead>
<tr>
<th>LEARNING MODULES</th>
<th>directions easy to follow</th>
<th>print large enough</th>
<th>colors OK</th>
<th>content easy to read</th>
<th>no need for additional content</th>
<th>minutes to complete module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being a Worry-free Caregiver (n = 1)</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>25</td>
</tr>
<tr>
<td>Dealing with Depression (n = 1)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>20</td>
</tr>
</tbody>
</table>

Note: Percentage represents agreement with item.

Experts’ Review of the Learning Modules

Each of the four experts evaluated two of the learning modules. Many of the changes suggested in the feedback from experts were in regard to the context of the modules, such as suggested grammar and editorial changes. In regard to the items on the review form (see Table 1), all experts agreed the print was large enough and Web sites were pertinent on all learning modules. However, each module had specific content suggestions.

In the learning module Assessing Risk and Understanding Stroke (see Appendix B), one expert thought that no further information was needed, no need to delete information in the module, and that the directions were easy to follow, while the other expert disagreed. (see Table 1) However, the experts recommended adding content on calling 911, as there was a focus on early intervention using emergency medical services.
An expert also suggested that the module might be less anxiety producing for the reader, if there was a statement that it would not be graded.

For the learning module Being a Worry-Free Caregiver (see Appendix C), one expert thought that no further information was needed (see Table 1). Both experts thought that there was a need to delete some information, but neither gave specific ideas. However, one expert suggested adding the frequency of relaxation techniques.

In the learning module Caregiver Role and Relationship (see Appendix D), one expert thought that the reading level was not appropriate (see Table 1). One expert asked about adding information about support groups, including what they are and how they are beneficial. Also, it was suggested to further explain about how roles may change, giving more detail or specific examples of the changes that may occur. One expert thought that the directions were unclear and recommended not saying at the beginning of the learning module, “sit back and relax”, as it implied the participant does not have to do anything but listen.

For the learning module Dealing with Depression (see Appendix E), one expert believed that the colors used were not pleasant, the level of reading was inappropriate, and some further information needed to be added to the module (see Table 1). One expert suggested adding another statement to replace the statement, “sit back and relax”, using the same rationale as in the previous paragraph. And finally, an expert pointed out a Web site could not be accessed without a password and that one Web site had been deleted.

Caregivers’ Review of the Learning Modules

Only two of the five caregivers separately reviewed one learning module. One reviewer said, “the module will be nice to utilize with future caregivers as a means of
learning.” Both caregivers were very pleased with the modules as demonstrated by the results of their review presented in Table 2. Only in one module, Being a Worry-free Caregiver (see Appendix C), did the caregiver reviewer disagree with the item statement on the review form (see Table 2). The caregiver that did not agree with the gray-toned colors used on the module as being OK. However, this caregiver reviewer did not make suggestion for change. In regard to minutes that it took the caregiver reviewers to complete the module, a time frame of 20 –25 minutes was originally decided upon as adequate time for completion of the module. This was the time it took the reviewers to read the modules (see Table 2).

Limitations

The review process of the learning modules had limitations. Using email to send out the modules and review forms to the caregiver reviewers was problematic. Two of the learning modules were not evaluated by caregivers. The cover letter, learning module, and review form were emailed to the caregivers and no responses were emailed back from three caregiver reviewers. It may be that these caregivers were not computer savvy, so that the documents could be opened, reviewed, and returned by email. One of the caregivers that did complete the review had trouble opening the review form and submitting the review back by email. This caregiver printed the review form and mailed it back using the United States Postal Service.

Summary of Chapter

All of the experts completed and submitted the reviews of the learning modules. Two of the five caregivers completed and submitted the reviews of the learning modules. The finding of the reviews were reported and discussed in this chapter.
Chapter 5

Discussion

In the previous chapters, the statement of the problem, statement of purpose, a nursing conceptual/theoretical framework, review of literature, discussion of design, material, target population, data collection, data analysis, and findings of the project were presented. A discussion of the findings, conclusions, and implications of this project for nursing practice, education, and future research are presented in this chapter.

Findings

The purpose of the project was to develop four learning modules for caregivers of persons with stroke who participate in a Web-based intervention of education and support, Caring–Web©. The literature supported the need for further education to be provided to caregivers. Developing learning modules was a way to provide this continued education and communication utilizing the Caring–Web©. The literature review supported the multiple benefits that are gained from computer-mediated teaching, geared toward adult learners.

Based on the suggestions by the expert reviewers the learning modules were revised. The learning modules were modified for grammar and typographical errors, and content format was corrected. For learning module Assessing Risk and Understanding Stroke (see Appendix B), one expert suggested readers may be anxious about pre and post assessment and suggested stating that it will not be graded. The developer did not make this change, as it was felt that the word “assessment” did not mean “graded”. The word pre- and post-test would imply grading was involved, and that is why the developer chose the word “assessment.”
In the learning module Being a Worry Free Caregiver (see Appendix C), one expert suggested adding frequency of relaxation techniques. The change was made to add relaxation techniques can be done daily, weekly or as the caregiver feels necessary for their own comfort level.

One caregiver reviewer stated that the gray colors used in one module, Being a Worry-free caregiver (see Appendix C), were not pleasing, but he or she did not include reasoning why. There were colors in the module that may not have been seen by the caregiver, if he/she printed the module in color rather than black and white tones. Therefore the developer did not change the colors at the present time. However, it should be noted that all modules will have more colors and pictures added to them when they are converted to actual Web pages.

In the learning module Caregiver Role and Relationships (see Appendix D), one expert expressed concern over the phrase “sit back and relax”, stating it implied the participant did not have to do anything but listen. The developer did not make this change because the phrase gives a relaxing or easy character to the learning module.

In learning module Dealing the Depression (see Appendix E), one expert answered that the reading level was not appropriate. The developer did not change the wording because it was felt that the reading level was at the lowest level possible to present the topic using medical terminology. In addition on the Web site, a nurse will be available to explain terms not understood by a caregiver.

Orem (2001) noted that universal self-care requisites (USCRs) are needs that are basic and common to all humans and are constantly present. Caregivers of individuals with stroke, dependent care agents in Orem’s terms, assist in meeting the USCRs of
persons with self-care deficits following stroke. Orem described dependent care agency as the abilities of the dependent care agent or the abilities on behalf of another individual aimed at meeting that person’s self-care requisites. The learning modules developed for this project provide information to assist caregivers in providing care to survivors of stroke and impact the caregivers’ self-care needs. After reviewing the learning module Assessing Risk and Understanding Stroke (see Appendix B), caregivers can have an understanding of the stroke disease process. The other three modules may assist caregivers in dealing with emotional changes/normalcy, and solitude, and social interaction. Using the Internet as a way to distribute the learning module will allow the caregivers the freedom to read whenever it is appropriate for them, while always having a nurse to answer their questions on the Caring~Web© site.

These findings are consistent with current literature guidelines. The modules are easy to read, developed at an eight-grade reading level, and written with chunks of information to make for good comprehension. The caregivers have the support of other caregivers, nurses, and Web resources utilizing Caring~Web©.

Review of Limitations

Sending the learning modules for review via email to the experts and caregivers posed a few problems that were presented in the previous chapter. There were three caregiver reviewers that did not respond at all. Was this because they did not receive the email documents or were not comfortable using email? Another potential limitation to using the computer for review purposes is that there are potential problems with the computer itself. Computers may crash and email may be lost. There is no way to know if these events happened in the project.
Implications

The development of these learning modules can be used for many applications. The modules will be made into Web pages on Caring~Web© for information purposes directed at caregivers of persons with stroke. The modules can be used for education in nursing practice. The modules could be reconstructed to incorporate them into a paper handout. Giving patients in a doctor’s office a handout with information about understanding stroke, being a worry-free caregiver, changes in roles and relationship and dealing with depression may be beneficial for many types of patients. There are many people dealing with various disease processes that might benefit from information on how to deal with depression and gain knowledge on changes in caregiver roles and relationships. The learning modules may also be used as a discussion topic for support groups or educational groups.

From an administration, as well as education, point of view, comparison of the cost of developing the learning modules versus the difference on individuals’ lives needs to be taken into account. For example, persons understanding the stroke disease process and risk factors may allow for early recognition of symptoms and result in earlier treatment, thus reducing the cost of medical complications. Reading information on being worry-free, relaxation techniques, and changes in roles and relationship of stroke survivors and caregivers allows the reader to become aware that they are not completely unique in their situations. Providing learning modules to individuals/caregivers may give information to assist in coping with transition of care. It may be more cost effective to develop the modules and potentially save someone from the cost of treating depression, by giving them the information and resources to deal with their depression before it gets
to a critical level.

Future Research

In the future, the four learning module could be designed into a research project to measure caregivers’ learning after module completion. The data could be looked at from a pre-assessment and post-assessment measurement. The modules could also be adapted to be culturally sensitive or gender specific and trialed with these populations.

Summary of Chapter

The findings of the development of the learning modules was reported, including suggestions from both the experts and caregivers. Recommendations for future use of the modules were identified.
References


MEMORANDUM

TO: Linda Pierce, Ph.D., R.N.
Department of School of Nursing
MCO

FROM: Eric Schaub, M.D., M.P.H., Chair
Daniel Cipriani, Ph.D., P.T., Chair Designee
MCO Institutional Review Board

DATE: November 18, 2004

SUBJECT: IRB #103261 - The Caring-Web: Web-based Support for Stroke Caregivers

Your amendment (add Kelly Blickensderfer to study personnel and add additional review of newly developed educational material) to the above protocol was reviewed and approved by the Chair and Chair Designee of the Institutional Review Board. Although consent/authorization for use and disclosure of protected information is waived for this portion of the research since the data being collected does not meet the definition of protected health information and the information, this amendment does not change the previous determination that Consent/Authorization for Use and Disclosure of Protected Health Information for the main portion of the study continues to be required. This action will be reported to the committee at its meeting on 11/18/2004. Thank you for your notification.

PROTOCOL EXPIRATION DATE: 4/4/2005

It is the Principal Investigator’s (P.I.’s) responsibility to:

1. Abide by all federal, state, and local laws and regulations; the MCO federal assurance and institutional policies for human subject research and protection of individually identifiable health information including those related to record keeping and be sure that all members of your research team have completed the required education in these areas.

2. Comply with the HIPAA Privacy Rule and institutional policy regarding the accounting and tracking of uses and disclosures of protected health information.

3. Promptly notify the MCO IRB at (419) 383-6796 of any untoward incidents or unanticipated adverse events that develop in the course of your research. Please complete and submit RGA Form 317 for ALL SUCH REPORTS for this protocol. The Principal Investigator is also responsible for submitting to the MCO IRB reports of adverse events that occur at other sites conducting this study and for maintaining an up-to-date cumulative table of adverse events (RGA Form 316) and submitting it to the MCO IRB for each research project. The Principal Investigator is responsible for reporting adverse events to the appropriate federal agencies and the sponsor (when one exists).

4. Report promptly to the MCO IRB any deviations or violations from the MCO IRB approved protocol in accordance with the procedures outlined in RGA Form 309. In your report include the protocol number and title, the subject’s initials/specimen identifier (as appropriate) and study I.D. number, date of the event, a brief description of the occurrence and a description of any corrective actions taken. The Principal Investigator is responsible for reporting deviations, violations and participant non-compliance to the appropriate federal agencies and the sponsor (when one exists) in accordance with federal regulations, institutional policy and any other legal agreements with these organizations.

5. Obtain prior MCO IRB review and approval for changes in study personnel and for any and all changes/new information that may require additional information be provided to participants.
Welcome to the learning module: Assessing Risk and Understanding Stroke. Everyone impacted by stroke needs to know the risk factors for and understand stroke. This module is designed for you to find out more about stroke.

Please sit back and relax for about the next 20 minutes. You may start and stop reading this module as many times as you like. Be sure to complete and submit the pre- and post-assessment questions.

What will you discover about stroke?

**ANSWER:** At completion of this module, you will learn:

1. What is a stroke.
2. What are the types of stroke.
3. What are the signs and symptoms of stroke.
4. What are the risk factors of stroke.
5. How can you reduce these risk factors.
Pre-assessment Questions

What do you already know about the topic of assessing your risk for and understanding stroke?

DIRECTIONS: Please click on the following statements as either true or false.

1. □ T □ F  A stroke is defined as an injury to the brain.

2. □ T □ F  Two types of stroke are: a blood clot in the brain (ischemic) and bleeding into the brain (hemorrhagic).

3. □ T □ F  The following are signs and symptoms of a stroke: dizziness, vision changes, confusion, and/or difficulty speaking.

4. □ T □ F  You cannot change or do anything about any of the risk factors that lead to stroke.

5. □ T □ F  You can reduce the risk of stroke from occurring by maintaining adequate blood pressure, stopping smoking, maintaining adequate weight, exercising, and controlling your cholesterol.

SUBMIT PRE-ASSESSMENT ANSWERS

☐ Click here to send your answers to your online nurse

Let’s get started in learning about your risk for and understanding stroke; continue to next page.
What is a stroke?

ANSWER: A stroke, also called a brain attack, is an injury to the brain. A stroke can happen when blood cannot get to a part of the brain. The blood is unable to reach the brain due to a blood vessel that is blocked by a clot or the blood vessel bursts. When either of these happen, the part of the brain that cannot get the blood it needs begins to die.

What are the types of stroke?

ANSWER: Ischemic (is-KEE-mic) stroke occurs when a blood vessel clogs within the brain. The underlying condition for this type of stroke is the development of fatty deposits lining the vessel walls.

Insert a picture of the brain with an ischemic stroke here

Hemorrhagic (hem-or-AJ-ic) stroke occurs when a weakened blood vessel bursts or ruptures; bleeding occurs into the brain.

Insert a picture of the brain with an hemorrhagic stroke here

Injury from the stroke can take many forms, depending on the area of the brain that is damaged and the amount of damage done to that area of the brain. The effect of stroke may be temporary, but some strokes are more serious and can cause death. Every stroke is different and no two persons with stroke have the same problems.

What are the signs and symptoms of stroke?

ANSWER: People experiencing stroke may have a variety of signs and symptoms.

- Mental status changes, including decreased concentration, attention, and alertness commonly occur.

- Generalized signs and symptoms of dizziness, decreased coordination, and loss of balance may also be an issue.

- Changes in vision are also common. The pupils in eyes may be unequal, vision may be blurry, double vision can occur, and decrease strength of eye muscles can occur.

- Speech changes can include having garbled speech or being unable to speak.
There may also be difficulty swallowing, decreased gag reflex and the tongue may not be in midline position. In addition, facial droop and drooling may be present.

The arms and legs may become weak or useless. Usually, only one side of the body is affected.

Persons may have a decreased sense of touch and pain. Numbness and tingling of arms and legs are common. Some people first have a fall; this is a key sign that they may be having a stroke.

These signs and symptoms may be present alone or together. They may also change as the stroke progresses or improves over time.

When anyone has signs and symptoms of stroke, remember that time equals brain. By this we mean, there is a narrow window of time between the onset of symptoms and brain injury, or cell death. Once the symptoms are noticed, it is important to get the person help immediately: CALL 911 for emergency care. There is a focus on early intervention by Emergency Medical Services to start treatment immediately to improve patient outcomes.

Please continue to next Web page...

**REMEMBER**

**THINK F-A-S-T**

F = face numbness or weakness especially on one side.

A = arm numbness or weakness especially on one side.

S = speech slurred or difficulty speaking and understanding.

T = time to call 911 – if these events occur suddenly OR are accompanied by:

- Loss of vision

- Loss of balance with dizziness or the worst headache of “your life” with no known cause, both sudden and severe.
What are the risk factors of stroke?

**ANSWER:** There are many stroke risk factors. Some risk factors you cannot change and many you can change.

- **Risk factors you cannot change are:**
  - Age
  - Gender
  - Heredity
  - Prior history of stroke.

- **Many risk factors that you can control and change are:**
  - High blood pressure is the most important risk factor for stroke. High blood pressure usually has no specific symptom and no early warning sign.
  - Cigarette smoking is a major, preventable risk factor. The nicotine and carbon monoxide in tobacco smoke reduce the amount of oxygen in your blood. This can also damage the walls of blood vessels, making clots more likely to form.
  - Diabetes mellitus increases the risk of stroke. Maintain your blood sugar within a normal range to reduce your risk.
  - Certain changes in the blood vessels thicken the blood and make clots more likely, such as arteriosclerosis (thickening and loss of elasticity of blood vessels) and atherosclerosis (fatty deposits in the arteries) that both increase blood pressure.
  - A high level of cholesterol in the blood is a major risk factor for heart disease, which raises the risk of stroke. Discuss your cholesterol level with your health care provider.
  - Being inactive, obese, or both can increase your risk of not only high blood pressure, high cholesterol, diabetes, heart disease, but also stroke.
  - Drinking excessive alcohol may raise blood pressure and may increase risk for stroke.
  - Intravenous drug abuse carries a high risk of stroke.
What is your risk for stroke?

**ANSWER:** Identify the risk factors that apply to you and to find out if you are at risk for stroke, click on the following link:

http://www.lifeclinic.com/focus/stroke/risk_survey.asp

How can you reduce these risk factors?

**ANSWER:** Many measures can be taken to reduce your risk of stroke or prevent another stroke.

- Preventing high blood pressure. High blood pressure can be prevented by exercising, decreasing salt intake, or by taking blood pressure medication as prescribed. Ask your health care provider about the purchase of in-home blood pressure monitoring device, how often to check your blood pressure, and at what level of reading you should seek help. The following web site offers a guide for the management of blood pressure. Click on the following link: www.americanheart.org/presenter.jhtml?identifier=4630

- If you can stop smoking and/or avoid second hand smoke, your risk for having a stroke or another stroke will decrease. Ask your health care provider about a program designed to help quit smoking. The following web site offers a guide to stop smoking, please click on the link: www.surgeongeneral.gov/tobacco/consquits.htm

- Being overweight increases the chance of high blood pressure, a major risk factor for stroke. Exercising regularly may make the heart stronger and improve circulation. You can reduce your weight by diet or exercise. Consult your health care provider about a weight loss program for you. The following web site has information on exercise and diet, please click on the link: http://familydoctor.org/288.xml

- High cholesterol can be managed by diet or with medication. Eating foods low in cholesterol is important in stroke prevention. Dietary counseling is helpful in learning healthier eating habits. The following web site offers a guide to healthy eating, please click on the link: www.americanheart.org/presenter.jhtml?identifier=4561

- Diabetes mellitus increases the risk of all kinds of heart disease, as well as stroke. Good control of blood sugar can delay the onset of diabetic complications. Ask your health care provider about the purchase of in-home blood sugar monitoring device, how often blood sugar should be checked, and at what blood sugar reading you should get emergency help. Keep a record of all blood sugar results for your health care provider
Another way to reduce your risk of stroke is to take blood thinner medication that can be taken to prevent recurrence of stroke. One familiar drug is aspirin. Taking one aspirin a day helps to prevent clots from forming in the blood vessels. There are other blood thinner medications, besides aspirin, that could be taken. Consult your healthcare provider before starting ANY blood thinner medications. The following web sites offers more information on blood thinners, please click on the links: http://www.tmc.edu/thi/blodmeds.html and www.rxlist.com/cgi/generic/warfarin.htm

For more general information on stroke and stroke prevention click on the following web site links:

www.stroke.org

http://www.strokeassociation.org

Post-assessment Questions

What did you learn about assessing your risk for and understanding stroke?

**DIRECTIONS**: Please click on the following statements as either true or false.

1. □ T □ F A stroke is defined as an injury to the brain.

2. □ T □ F Two types of stroke are: a blood clot in the brain (ischemic) and bleeding into the brain (hemorrhagic).

3. □ T □ F The following are signs and symptoms of a stroke: dizziness, vision changes, confusion, and/or difficulty speaking.

4. □ T □ F You cannot change or do anything about any of the risk factors that lead to stroke.

5. □ T □ F You can reduce the risk of stroke from occurring by maintaining adequate blood pressure, stopping smoking, maintaining adequate weight, exercising, and controlling your cholesterol.
SUBMIT PRE-ASSESSMENT ANSWERS

☐ Click here to send your answers to your online nurse

THANK YOU FOR YOUR PARTICIPATION!

Please continue to next page.

Answers to Assessment Questions

1. T A stroke is defined as an injury to the brain.

2. T Two types of stroke are: a blood clot in the brain (ischemic) and bleeding into the brain (hemorrhagic).

3. T The following are signs and symptoms of a stroke: dizziness, vision changes, confusion, and/or difficulty speaking.

4. F You cannot change or do anything about any of the risk factors that lead to stroke.

5. T You can reduce the risk of stroke from occurring by maintaining adequate blood pressure, stopping smoking, maintaining adequate weight, exercising, and controlling your cholesterol.

References


____________________________________________________________

Developed in 2005 by Kelly Blickensderfer, BSN, RN, MCO School of Nursing, Medical College of Ohio for the Caring~Web©
Welcome to the learning module: Being a Worry Free Caregiver. Sometimes changes in our lives, like dealing with stroke, can cause anxiety or worry. This module is designed for you to find out more about being a worry free caregiver.

Please sit back and relax for about the next 20 minutes. You may start and stop reading this module as many times as you like. Be sure to complete the pre- and post-assessment questions.

What will you discover about being a worry free caregiver?

**ANSWER:** At completion of this module, you will learn:

1. Importance of physical, emotional, spiritual and financial health in regard to being a caregiver.

2. What is relaxation.

3. The negative effects of stress.

Pre-assessment Questions

What do you already know about the topic of being a worry free caregiver?

DIRECTIONS: Please click on the following statements as either true or false.

1. T F Physical, emotional, spiritual, and financial health are all important and necessary in taking care of yourself to become a strong caregiver.

2. T F Relaxation is the art of reducing physical and emotional tension.

3. T F Stress can result in poor sleep, depression, and decreased appetite.

4. T F Relaxation affects your body by increasing metabolism and decreasing blood flow.

SUBMIT PRE-ASSESSMENT ANSWERS

Click here to send your answers to your online nurse

Let’s get started in learning about being a worry free caregiver; continue to next page.

Why is it important to care for yourself?

ANSWER: As a caregiver, the welfare of another person depends on you. If you are not in good health, that other person also may suffer. If you have taken on the role of a caregiver, you need to focus on taking care of yourself. Taking physical, emotional, spiritual, and financial care of yourself is essential. The following web site has information on caring for yourself, as a caregiver [click on link to view]: www.caregiver.org
What about your physical health?

**ANSWER:** Physical health is a key concern for caregivers. Getting adequate rest at night is critical. It is important to get 7-8 hours of sleep. In addition, regular exercise will strengthen you to allow you to help someone who needs assistance to walk or move from place to place. It is recommended to get 20 minutes of physical exercise three times a week. A well balanced diet is also linked to maintain overall physical health. Consult your healthcare provider to discuss your own health problems. The following web site offers information on physical health [click on the link to view]: www.physicalhealth.com

What about your emotional health?

**ANSWER:** Emotional health is closely linked to other forms of health, but its importance is often overlooked. Emotions are often conflicting and confusing. It is important for you to talk about emotions stirred up by the job of caring for your loved one with a stroke. You may want to talk to a friend, support group, or your healthcare provider. You may feel anger, guilt, impatience, helplessness, love, and dislike all at the same time. Regardless of which label you give them, you need to recognize that all these feelings are normal. Laughter is important. It can ease tension and frustration. It can help you enjoy small moments of success. For a little chuckle check out the following web site [clink on link to view]: www.jokeaday.com

What about your spiritual health?

**ANSWER:** Spiritual health, basically, is the peace and strength that everyone carries within them. Much of what supports physical and emotional health also maintains spiritual strength. You might add a regular quiet time to your day to help you collect your thoughts and strengthen yourself to continue providing care. Some people go for a walk in the park, use inspirational readings, and/or write in a book (journaling). The following web site gives ideas on journaling your thoughts [click on the link to view]: www.1st-in-self-improvement.com Whatever technique you chose, remember that you are seeking to be at peace with yourself.

What about your financial health?

**ANSWER:** Financially caring for another person can be costly. You may want to carefully consider the financial consequences for you, your family, and your future. You may want to consult with financial or legal advisors.
How can stress affect you?

**ANSWER:** An important way to help maintain your own self-care is to keep your stress level down and in control. Stress not only affects our bodies, but it also affects the way we think and feel. Too much stress can be harmful, having a negative impact on our mental health, as well as relationships with others.

Everyone experiences stress. In combination with an existing health condition, stress can be even more dangerous. It is important to recognize early signs of stress and develop skills to handle it. Take time to review daily routines and stressful events and make a plan to deal with stress on a daily basis. It may be difficult to change your lifestyle immediately to achieve optimal health, but even small changes reap rewards.

What are the effects of stress?

**ANSWER:** Stress may result from different problems such as finances, family issues, work, and health related issues. Stress has both positive and negative effects.

Even in the modern world, the stress response can be an asset for raising levels of performance during critical events such as a sports activity, an important meeting, or in situations of actual danger or crisis. If stress becomes persistent and low-level, however, all parts of the body’s stress apparatus (the brain, heart, lungs, vessels, and muscles) become chronically over- or under activated. This may produce physical or psychological damage over time. Acute stress can also be harmful in certain situations.

**Positive effects of stress may result in:**

- Increasing in productivity
- Increasing attention to details and surroundings
- Compelling us to do a good job at whatever we do.
Negative effects of stress may result in:

- Sleep disturbances
- High blood pressure
- Increased heart rate
- Fast breathing
- Depression
- Tense muscles
- Decreased appetite
- Frustration
- Anxiety
- Anger.

**How does relaxation affect stress?**

**ANSWER:** Caregivers of persons with stroke often feel less in control of their environment and situation. This may increase stress levels. Take a stress quiz [click on the link to view]: [http://www.stress-management.net/stress-test.htm](http://www.stress-management.net/stress-test.htm)

Everyone has the ability to learn how to manage stress responses. Relaxation is one way to do that. Relaxation techniques may be done whenever you feel yourself becoming stressed. Relaxation is the art of reducing physical and emotional tension.
Relaxation affects your body by:

- Slowing and deepening your breathing
- Slowing your heart rate
- Reducing blood pressure
- Increasing blood flow
- Relaxing muscles
- Restoring hormone balance
- Slowing metabolism.

Relaxation affects your mind by:

- Creating a calmer state
- Increasing awareness of feelings
- Reducing stress
- Refreshing your mind.

**What are some relaxation techniques?**

**ANSWER:** The following are examples of methods to enhance relaxation:

- **Deep muscle relaxation.** Deep muscle relaxation helps you to relax your entire body from head to toe, by first tensing-then relaxing-various muscle groups.

- **Deep Breathing.** Deep, slow breathing can actually interrupt your stress response and help you relax. First, clear the air from your lungs by exhaling slowly (through your mouth) until your lungs feel empty. Then inhale (through your nose) until you begin to feel your abdomen rise. Hold for 5 seconds; then exhale and begin the cycle again.

- **Visual Imagery.** This technique is a mental attempt to create a relaxing “picture” that helps reduce the physical stress you are experiencing. Choose a relaxing scene and attempt to visualize it completely, using all
five senses (smell, sight, hearing, taste, and touch).

- **Music.** Music can be very comforting. Choose music that is soothing and pleasing to the ear.

Relaxation techniques can be done daily, weekly, or as the caregiver feels necessary for their own comfort level.

Click on the following web sites to 1) learn more information on stress and relaxation and 2) guide you in becoming a worry free caregiver:


[www.relaxationstation.com](http://www.relaxationstation.com)


**Post-assessment Questions**

**What did you learn about becoming a worry free caregiver?**

**DIRECTIONS:** Please click on the following statements as either true or false.

1. ☐ T ☐ F Physical, emotional, spiritual, and financial health are all important and necessary in taking care of yourself to become a strong caregiver.

2. ☐ T ☐ F Relaxation is the art of reducing physical and emotional tension.

3. ☐ T ☐ F Stress can result in poor sleep, depression, and decreased appetite.

4. ☐ T ☐ F Relaxation affects your body by increasing metabolism and decreasing blood flow.

**SUBMIT PRE-ASSESSMENT ANSWERS**

☐ Click here to send your answers to your online nurse
THANK YOU FOR YOUR PARTICIPATION!

Please continue to next Web page

**Answers to Assessment Questions**

1. **T**  Physical, emotional, spiritual, and financial health are all important and necessary in taking care of yourself to become a strong caregiver.

2. **T**  Relaxation is the art of reducing physical and emotional tension.

3. **T**  Stress can result in poor sleep, depression, and decreased appetite.

4. **F**  Relaxation affects your body by increasing metabolism and decreasing blood flow.

**References**


_______________________________________________________________

Developed in 2005 by Kelly Blickensderfer, BSN, RN, MCO School of Nursing, Medical College of Ohio for the Caring~Web®
Welcome to the learning module: Caregiver Role and Relationships. Stroke may cause individuals and families to change the way that they "do business" and live. This module is designed to help you learn about changes that may occur in roles and relationships, as you become a caregiver.

Please sit back and relax for about the next 20 minutes. You may start and stop reading this module as many times as you like. Be sure to complete the pre- and post-assessment questions.

What will you discover about caregiver roles and relationships?

**ANSWER:** At completion of this module, you will learn:

1. What changes in roles may occur.
2. What changes in relationships may occur.
3. Importance of assigning new roles.
4. Importance of family conferences and outside support.
Pre-assessment Questions

What do you already know about the topic of caregiver roles and relationships?

**DIRECTIONS:** Please click on the following statements as either true or false.

1. □ T □ F Changes in roles include: finances, support, tasks, daily routines, and household responsibilities or activities.

2. □ T □ F You may no longer be able to have the same emotional and physical intimacy you once shared with the person with stroke.

3. □ T □ F It is important to maintain roles and relationships that existed prior to the stroke.

4. □ T □ F A family conference can be a helpful time to discuss long term plans for the care recipient and allow family members to express their thoughts and feelings.

**SUBMIT PRE-ASSESSMENT ANSWERS**

[Click here to send your answers to your online nurse](#)

Let’s get started in learning about caregiver roles and relationships; continue to next page.

**Why can roles and relationships change?**

**ANSWER:** Following a stroke, change may occur with your current roles and relationships. You may take on new or different tasks in caring, such as bathing, feeding, or dressing the person you are caring for. Many caregivers have fear, anxiety, frustration, and adjustments in their ability to deal with their loved one after a stroke. These experiences may affect their roles and relationships. The way some individuals view people with disabilities, such as stereotypes regarding slowness, inability to process ideas, and even physical limitations such as mobility, hearing, and vision, can also affect roles and change relationships.
What are some changes in your roles and relationships?

**ANSWER:** Giving care to a family member with a stroke can bring stress into the family as changes occur in:

- Finances
- Support
- Household responsibilities or activities, such as paying bills, cleaning, laundry, shopping, and cooking
- Daily routines, such as bathing, grooming, and dressing.

When a family member begins to require daily care, “tried and true” family roles are often used first, as a way of coping with the new situation. Sometimes caregivers automatically start acting like the parent. Other family members, brothers, sisters, children, and in-laws may be frightened by the condition or not feel comfortable around the care recipient. Remember, as a caregiver you can not do everything alone. If you accept the role of primary caregiver, you should feel free to request significant help from family members inside and outside the household and from professional providers.

You may find yourself taking on new roles and relationships in your family. You may be feeling enormous grief over the changes in your relationship. You are not selfish for experiencing these feelings. If you are caring for your spouse, you may no longer be able to have the same emotional or physical intimacy that you once shared. Some caregivers report changes in sexual feelings toward their loved one, as a result of providing daily caregiving tasks. React to your loved one with patience and gentleness. Give your loved one plenty of physical contact in the form of hugging, stroking, or patting. In many cases, he or she may simply be anxious and need reassurance through touch and gentle, loving communication.

Sometimes clear-cut family roles can help everyone know what they should do for the family member with a stroke. Roles can provide order and structure to what often seems to be chaos. You need to be aware of the changing relationships that may take place. When you become a caregiver, you will probably find that you will have less time for your children, parents, spouse, siblings, or best friends. Your energy and interest for projects or activities you used to enjoy together may diminish. All these extra stresses affect immediate family.
How can you manage changes in your family?

**ANSWER:** The caregiver, the care recipient, and other family members should discuss the anticipated changes, such as changes in household routines: fixing and eating dinner, house cleaning, and grocery shopping. Daily activities may need to be altered as well. For example, daily walks after eating dinner may be reduced or usual Saturday family outings may need to be altered to fit the new family needs. Young children need to know how they fit in. For example, children could help a grandparent eat or read them their mail.

Family conferences can be helpful in sorting out the expectations for each family member including the care recipient. Family conferences are a good way to make long term plans for everyone involved, as well as sharing information and feelings.

The caregiver, family members, and the care receiver will all encounter new situations in their roles. Maintaining communication, positive support systems, and overall optimal health will assist in adapting to the role and relationship changes that occur after an individual has a stroke. Talk with others who are experiencing similar situations. Support groups allow you to meet with others who are experiencing similar situations and give you others to talk to outside your family and friends.

Each of these situations has the potential to produce significant conflict and stress in the home environment. In the same way that it is important to take care of the person with stroke with regards to mood and stress, it is equally important for caregivers to have times for respite and ability to recoup energy. Couples therapy can be helpful finding a new balance in roles that now are creating conflict. Family therapy may be helpful for these same reasons.

The following web site links provide you with more information about role and relationships changes [click on links to view]:

- [www.strokeassociation.org](http://www.strokeassociation.org)
- [www.umm.edu](http://www.umm.edu)
- [www.naswdc.org](http://www.naswdc.org)
Post-assessment Questions

What did you learn about caregiver roles and relationships?

**DIRECTIONS**: Please click on the following statements as either true or false.

1. □ T □ F Changes in roles include: finances, support, tasks, daily routines, and household responsibilities or activities.

2. □ T □ F You may no longer be able to have the same emotional and physical intimacy you once shared with the person with stroke.

3. □ T □ F It is important to maintain roles and relationships that existed prior to the stroke.

4. □ T □ F A family conference can be a helpful time to discuss long term plans for the care recipient and allow family members to express their thoughts and feelings.

**SUBMIT PRE-ASSESSMENT ANSWERS**

☐ Click here to send your answers to your online nurse

THANK YOU FOR YOUR PARTICIPATION!

Please continue to next Web page

**Answers to Assessment Questions**

1. T Changes in roles include: finances, support, tasks, daily routines, and household responsibilities or activities.

2. T You may no longer be able to have the same emotional and physical intimacy you once shared with the person with stroke.

3. F It is important to maintain roles and relationships that existed prior to the stroke.

4. T A family conference can be a helpful time to discuss long term plans for the care recipient and allow family members to express their thoughts and feelings.
References


Developed in 2005 by Kelly Blickensderfer, BSN, RN, MCO School of Nursing, Medical College of Ohio for the Caring~Web®
Welcome to the learning module: Dealing with Depression. While not every caregiver is affected by depression, some people are. This module is designed for you to find out more about dealing with depression.

Please sit back and relax for about the next 20 minutes. You may start and stop reading this module as many times as you like. Be sure to complete the pre- and post-assessment questions.

What will you discover about dealing with depression?

**ANSWER:** At completion of this module, you will learn:

1. What is depression.
2. What are the signs and symptoms of depression.
3. How does depression differ in women and men.
4. Importance of treatment for those individuals who suffer from depression.
5. Recommended treatment for depression.
Pre-assessment Questions

What do you already know about the topic dealing with depression?

DIRECTIONS: Please click on the following statements as either true or false.

1. T F Depression is a common medical condition.

2. T F Feelings of hopelessness, guilt, decreased energy, difficulty concentrating, and thoughts of suicide are all symptoms of depression.

3. T F There are no differences in how men and women experience depression.

4. T F Most people can not benefit from treatment for depression.

5. T F In general, medication/drug treatment for depression should be taken for six months to one year.

Submit Pre-assessment answers

Click here to send your answers to your online nurse

[Insert picture of a nurse here]

Let’s get started in learning about dealing with depression; continue to next Web page.

What is Depression?

ANSWER: Depression can be brought on by a major life event. Depression is common after a stroke and after taking on the caregiving role. Depression is not a sign of weakness or a character flaw, it is a medical condition. Depression is an imbalance of chemicals in the brain. Caregivers are especially prone to depression, due to taking on a new role in caring for their loved one with stroke. Besides the huge physical and mental impact of caregiving, there may be isolation, change in relationships, physical intimacy changes, and maybe changes in both of your personalities. The challenges of caregiving are many and depression can get in the way of meeting them in a positive way.

What is your risk of depression? Click on the link below and take a self-test for depression: [www.med.nyu.edu/psych/screens/depres.html](http://www.med.nyu.edu/psych/screens/depres.html)
If you have questions about your score contact your family doctor.

**Is sadness different than depression?**

**ANSWER:** The term depression refers to: a persistent sad mood, when experienced nearly every day for at least two weeks and/or loss of interest or pleasure in most activities. Depression is not the same as having the occasional “blues” or feeling sad every once in a while and then bouncing back to your old self. Depression can be mild, moderate, or so bad if affects every part of your life, your body, your feelings, your thoughts, and your behaviors.

People experience depression in different ways. Some may feel a general low-level sadness for months, while others suffer a more sudden and intense negative change in their outlook. The type and degree of symptoms vary by individual and can change over time.

**What are the signs and symptoms of depression?**

**ANSWER:**

Depression is accompanied by some of the following symptoms:

- Continuing sad or “empty” mood
- Feelings of hopelessness and/or negativeness
- Feelings of guilt, worthlessness, and helplessness
- Loss of interest or pleasure in hobbies and activities that were once enjoyed, including sexual intimacy
- Decreased energy, tiredness, or being “slowed down”
- Difficulty concentrating, remembering, or making decisions
- Not sleeping, early-morning awakening, or over sleeping
- Appetite and/or weight changes
- Thoughts of death or suicide, or suicide attempts
- Restlessness.

People with depression may also experience digestive problems such as dry
mouth, nausea, constipation, and diarrhea. Being constantly worried, anxious, or irritable are also possible hidden signs of depression.
What are the differences in women and men experiencing depression?

**ANSWER:**

**Depression in Women:**

Depression in women has a quicker onset, last longer, is more likely to reoccur, and can be associated with stressful life events such as panic or phobia situations, anxious situations, and situations involving eating disorders.

Women are:

- More likely to experience symptoms that are less typical of depression, such as sleeping and eating excessively
- More likely to experience guilty feelings and attempt suicide; although they are successful in suicide less often than men
- Less likely to abuse alcohol and other drugs.

**Depression in Men:**

Men are less likely to show “typical” signs of depression, such as crying, sadness, loss of interest in previously enjoyable activities, or verbally expressing thoughts of suicide. Instead, men are more likely to keep their feelings hidden, but may become more irritable and aggressive.

Depressed men:

- Tend to deny having problems because they are supposed to “be strong”
- Are more likely to talk about physical symptoms of their depression, such as feeling tired, rather than those related to emotions.

**How is treatment started?**

**ANSWER:** One of the hardest things to do is begin to reach out and get the needed help. Begin by talking to family, friends, clergy, or health care provider. The health care provider can work with the person on a treatment plan and find one that is best.
What treatments are available?

ANSWER: Three approaches are commonly used to treat depression.

• **Medication Therapy**: a healthcare provider gives a drug, an antidepressant, to treat the symptoms of depression. In general, this medication needs to be taken for 2-4 week before its effects are noticed. Commonly, all medicines for depression should be taken for six months to one year. For more information on medications click on the following link to view: [www.rxlist.com](http://www.rxlist.com)

• **Psychotherapy**: a trained counselor talks with the person with depression about his/her condition: listens, encourages, and works with him or her to find solutions. For more information click on the following link: [http://www.aboutpsychotherapy.com/](http://www.aboutpsychotherapy.com/)

• **Combination Therapy**: a combination of medication and psychotherapy treatments is used.

More information about therapies for depression can be found on the next page.

Please continue….

Other specific kinds of therapy are used to treat depression:

• **Cognitive behavioral therapy** (CBT) can help to identify and change the thought and behavior patterns that contribute to depression. People who are depressed tend to think negatively, and cognitive behavioral therapy teaches them how to identify and challenge the negative thoughts. This approach is usually done in short-term therapy and has been found to be particularly helpful in depression. For more information click on the following web site: [www.cognitivetherapy.com](http://www.cognitivetherapy.com)

• **Interpersonal therapy** looks at how depression can be connected to troubled emotional relationships. Like cognitive-behavioral therapy, interpersonal therapy tends to be a short-term therapy and has been proven to work well with depression. For more information click on the following web site: [www.med.umich.edu/depression/ipt.htm](http://www.med.umich.edu/depression/ipt.htm)

• **Psychodynamic therapy** links depression to trauma and conflicts that happened earlier in a person’s life, especially during childhood. It can be a short-term treatment, although it is often a longer process. For more information click on the following web site: [http://easyweb.easynet.co.uk/simplepsych/204.html](http://easyweb.easynet.co.uk/simplepsych/204.html)
• **Group therapy** allows a person and other people with depression—or people with the same issues that contributed to their depression—to meet together with a therapist and share experiences. For more information click on the following web site: http://www.rci.rutgers.edu/~rccc/groupbro.html

**Why treat depression?**

**ANSWER:** Depression, though common, needs to be treated. Depression will not just go away. It will limit the energy people need, as a caregiver, to care for their loved one. For someone with a stroke, depression will interfere with his/her recovery. Most depressed people can benefit from treatment. In fact early recognition and treatment seem to decrease the length and severity of depressive episodes for most people. The length of treatment for depression is different for each person.

Dealing with depression is one of the most challenging situations that people ever face. But people who have been successfully treated for depression say that being able to beat depression made them realize how strong they were. And once they got back to themselves, they appreciated life even more.

The following are some web sites to provide you with more information on the topic of depression [click on the link to view]:

www.nimh.nih.gov

www.nami.org

www.mentalhealth.com

**Post-assessment Questions**

**What did you learn about dealing with depression?**

**DIRECTIONS:** Please click on the following statements as either true or false.

1. □ T □ F Depression is a common medical condition.

2. □ T □ F Feelings of hopelessness, guilt, decreased energy, difficulty concentrating, and thoughts of suicide are all symptoms of depression.

3. □ T □ F There are no differences in how men and women experience
depression.

4. □ T □ F Most people can not benefit from treatment for depression.

5. □ T □ F In general, medication/drug treatment for depression should be taken for six months to one year.

SUBMIT PRE-ASSESSMENT ANSWERS

☐ Click here to send your answers to your online nurse

THANK YOU FOR YOUR PARTICIPATION!

Please continue to next Web page

Answers to Assessment Questions

1. F Depression is a common medical condition.

2. T Feelings of hopelessness, guilt, decreased energy, difficulty concentrating, and thoughts of suicide are all symptoms of depression.

3. F There are no differences in how men and women experience depression.

4. F Most people can not benefit from treatment for depression.

5. T In general, medication/drug treatment for depression should be taken for six months to one year.

References:


Developed in 2005 by Kelly Blickensderfer, BSN, RN, MCO School of Nursing, Medical College of Ohio for the Caring~Web®
Appendix F

Critique for EXPERT REVIEW of Learning Modules

Directions: I am asking you, as an expert in the field, to carefully read a Learning Modules.
This review form is for Module: Name of Module
- Highlight in **Bold type** your answer to each question listed below and add comments when requested.
- **Please return one completed review page for each Learning Module within 3 – 5 working days to:** kblickensderfer@mco.edu

1. Is the print large enough for the reader to easily see the words?
   - YES  NO

2. Are the colors visually pleasant for the reader?
   - YES  NO

3. Is the reading level of the content appropriate for the reader?
   - YES  NO

4. Are there other ideas that need to be added to the content?
   - YES  NO
   If you chose YES, what should be added?

5. Is there anything to delete that would make the content clearer?
   - YES  NO
   If you chose YES, what should be deleted?

6. Are the directions for participation understandable/easy to follow?
   - YES  NO
   If you chose NO, what recommendations do you have for improving the directions?

7. Do the chosen web sites provide pertinent information for the reader?
   - YES  NO
   If you chose NO, which web sites do you feel should be eliminated?

8. Is there another web site(s) to add to the content?
   - YES  NO
   If you chose YES, please list the web site(s):

THANK YOU
Appendix G

School of Nursing

Medical College of Ohio
Collier Building
3015 Arlington Avenue
Toledo, Ohio 43614-5803

My name is Kelly Blickensderfer. I am a Registered Nurse and a graduate student at the Medical College of Ohio School of Nursing. My scholarly project for school involves developing educational materials for caregivers of persons with stroke. This information will be provided on an established Web page that focuses on education and support for these caregivers.

As an advanced practice registered nurse associated with the Caring–Web© project, I would like your input regarding two (2) educational Learning Modules [see attachments]. Please read each module and then answer the questions on the review form for each module. Please do not place your name on the review materials.

The development of these education materials may be shared with a professional journal and its readers; however, your identity will remain anonymous. Any other information that is obtained in connection with this review will remain confidential.

Your participation is strictly voluntary. If you decide not to participate in the review process, your decision will not affect current or future relations with the Medical College of Ohio. If you decide to participate, I ask that you complete and return the attached review form within the next 3–5 days to me by email at kblickensderfer@mco.edu Your consent to participate in this project is implied with return of completed review materials.

Thank you for your assistance in helping me develop educational materials for caregivers of persons with stroke.

Kelly Blickensderfer, BSN, RN
Graduate Student
kblickensderfer@mco.edu

Linda L. Pierce, PhD, RN
Professor and Academic Advisor
lpierce@mco.edu
Appendix H

Critique for the CAREGIVER REVIEW of Learning Modules

Directions: I am asking you, as a current or previous caregiver of a loved one with a stroke, to carefully read a Learning Module. This review form is for Module:
Name of Module

- Highlight in **Bold type** your answer to each question listed below and add comments when requested.

- Please return this completed review page within the next week to me by email at:
  kblickensderfer@mco.edu

1. Are the directions for your participation understandable/easy to follow?
   
   YES  NO

   If you chose NO, what recommendations do you have for improving the directions?

2. Is the print large enough for you to easily see the words?
   
   YES  NO

3. Do you like the colors on the pages?
   
   YES  NO

4. Can you easily read the content?
   
   YES  NO

5. Do you have other questions related to the content that need to be added?
   
   YES  NO

   If you chose YES, what should be added?

6. How many MINUTES did it take you to read the module?
   
   _____ Minutes

THANK YOU.
Appendix I

School of Nursing

Medical College of Ohio
Collier Building
3015 Arlington Avenue
Toledo, Ohio 43614-5803

My name is Kelly Blickensderfer. I am a Registered Nurse and a graduate student at the Medical College of Ohio School of Nursing. My scholarly project for school involves developing educational materials for caregivers of persons with stroke. This information will be provided on an established Web page that focuses on education and support for these caregivers.

As a current or previous caregiver for a loved one with stroke, I would like your input regarding one educational Learning Module. Please read the module and then answer the questions on the review form for the module. Please do not place your name on the review materials.

The development of these education materials may be shared with a professional journal and its Readers; however, your identity will remain anonymous. Any other information that is obtained in connection with this review will remain confidential. Your participation is strictly voluntary. If you decide not to participate in the review process, your decision will not affect current or future relations with the Medical College of Ohio. If you decide to participate, I ask that you complete and return the attached review form within the next 5 – 7 days to me by email at kblickensderfer@mco.edu Your consent to participate in this project is implied with return of completed review materials.

Thank you for your assistance in helping me developing educational materials for caregivers of persons with stroke.

Kelly Blickensderfer, BSN, RN
Graduate Student
kblickensderfer@mco.edu

Linda L. Pierce, PhD, RN
Professor and Academic Advisor
lpierce@mco.edu
Abstract

Development of Web-based Learning Modules for Caregivers of Persons with Stroke

After initial hospitalization and stroke rehabilitation, 80% of stroke survivors return to the community relying on their family members for emotional, informational, and instrumental support for their daily living. Educating survivors of stroke and their caregivers is important to prevent further strokes and to assist the caregivers in providing care. The purpose of this project was to develop four learning modules for caregivers of persons with stroke who participate in Web-based intervention of education and support called Caring~Web©. Orem’s self-care deficit nursing theory was identified as the conceptual framework for this project. Nurse experts and caregivers of persons with stroke reviewed these modules. The findings revealed that both groups of reviewers were very positive about the modules. These learning modules were revised based on their feedback that centered mostly on format and grammar. The modules will be added to the Caring~Web.