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Content Validity and Satisfaction With a Stroke Caregiver Intervention Program

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Abstract

Background and Purpose—Establishing evidence of content validity and satisfaction is an integral part of intervention research. The purpose of this article is to describe content validity and satisfaction relative to the Telephone Assessment and Skill-Building Kit (TASK), an 8-week follow-up program based on individualized assessment of stroke caregiver needs.

Design and Methods—The TASK intervention enables caregivers to develop skills based on assessment of their own needs. During the development of the TASK program, 10 experts rated the validity of the TASK intervention components for accuracy, feasibility, acceptability, and problem relevance. After incorporating feedback from the experts, a randomized controlled clinical trial was instituted using a convenience sample of 40 stroke caregivers to determine satisfaction (usefulness, ease of use, and acceptability) with the TASK intervention ($n=21$) compared with an attention control group ($n=19$). Data collection occurred between March 2005 and June 2006. Data were analyzed using descriptive statistics, independent sample t tests, and content analysis.

Findings—Expert ratings on a 1 to 5 scale, with 5 being strongly agree, provided evidence of content validity (accuracy 4.71, feasibility 4.46, acceptability 4.40, problem relevance 4.67). Caregivers in the TASK group scored significantly higher than the attention control group on all satisfaction measures (usefulness $p=.02$; ease of use $p=.02$; acceptability $p=.05$). Qualitative comments from caregivers provided further evidence of satisfaction.

Conclusions—Evidence of content validity and user satisfaction for the TASK intervention relative to an attention control group was found.

Clinical Relevance—The TASK program may be a viable telephone-based program that can be implemented by nurses to support family caregivers during the first few months after stroke survivors are discharged home.

Keywords

Stroke; family caregivers intervention studies needs assessment; feasibility; satisfaction; validity

With stroke being a leading cause of long-term disability (Lloyd-Jones et al., 2009), families are increasingly being faced with the responsibility for providing care for stroke survivors. Intervention programs that address the unmet needs of stroke family caregivers have been recommended in the literature (Bakas et al., 2009; Visser-Meily, van Heugten, Post, Schepers, & Lindeman, 2005), as well as in current patient care guidelines for stroke rehabilitation (Duncan et al., 2005; Van Heugten, Visser-Meily, Post, & Lindeman, 2006). Before being tested for efficacy in a large study, such intervention programs must be shown to have content validity and to be acceptable to caregivers. The purpose of this paper is to describe the content validity of and satisfaction with the Telephone Assessment and Skill-Building Kit (TASK), an 8-week follow-up program based on assessment of stroke caregiver needs.

Background

Globally, families provide the most care for dependent persons, regardless of whether they live in developed or developing countries (American Association of Retired Persons, 2009). The National Caregiver Alliance's National Center on Caregiving has recommended policy changes and further research to promote the use of caregiver assessment tools and protocols across healthcare settings to improve the support and services for family caregivers (Family Caregiver Alliance, 2006a, 2006b). Caregiver programs and services are especially needed for stroke family caregivers because stroke-related motor, sensory, visual, language, cognitive, and affective impairments make stroke the leading cause of serious, long-term disability (Kelly-Hayes et al., 1998; Lloyd-Jones et al., 2009). Stroke caregivers commonly experience a variety of unmet needs, and the assessment of their needs from the caregiver's perspective is increasingly emphasized in the literature (Bakas, Austin, Okonkwo, Lewis, & Chadwick, 2002; King & Semik, 2006; Visser-Meily et al., 2005), as well as in current patient care guidelines for stroke rehabilitation (Duncan et al., 2005; Van Heugten et al., 2006).

Research demonstrating efficacy of stroke caregiver interventions has produced conflicting results. For example, Visser-Meily and colleagues (2005) found that fewer than half of the studies they reviewed on stroke caregiver interventions provided positive results on one or more outcome measures. Most studies found that the provision of passive information alone has little effect on stroke caregivers (Smith et al., 2008), whereas studies that combined education with active strategies such as problem-solving strategies were more effective (Grant, Elliott, Weaver, Bartolucci, & Giger, 2002; Smith et al., 2008; ven den Heuvel, de

Witte, Nooyen-Haazen, Sanderman, & Meyboomde Jong, 2000). Consistent with recommendations to focus on stroke caregiver needs. Bakas and colleagues (2009) found that their skill-building intervention based on individualized assessment of needs, resulted in significantly improved optimism, reduced difficulty with tasks, and lower threat appraisal associated with providing care.

Assuring that the content of interventions is valid and obtaining evidence of satisfaction by users is very important before large-scale and costly efficacy studies are conducted. Interventions that are efficacious in improving outcomes, but lack evidence of caregiver perceptions of usefulness, ease of use, acceptability, as well as overall satisfaction, would have little value in practice settings. Furthermore, documenting stroke caregiver satisfaction with interventions is consistent with the Institute of Medicine's (2001) priority for patient-centered outcomes based on respect for the needs, values, and preferences of individuals.

Design and Methods

The focus of this paper is to describe the process by which content validity of the TASK program components was assessed by experts, as well as how caregiver satisfaction with the TASK intervention group ($n=21$) compared with an attention control group ($n=19$). Qualitative comments from caregivers in both groups were analyzed as well. Efficacy of the TASK program for stroke caregivers was tested using an experimental design, with those results reported elsewhere (Bakas et al., 2009).

TASK Intervention and Attention Control Procedures

TASK intervention

The TASK, intervention enables caregivers to develop skills based on assessment of their own needs in five main areas: (a) finding information about stroke, (b) managing survivor emotions and behaviors, (c) providing physical care, (d) providing instrumental care, and (e) dealing with one's own personal responses to providing care (Bakas et al., 2009). First, stroke caregiver needs were self-assessed using the Caregiver Needs and Concerns Checklist (CNCC; Bakas et al., 2002). Individualized skill-building interventions were then delivered based on self-assessed priority needs. The TASK intervention included a notebook containing written "tip sheets" that was mailed to caregivers at the beginning of the program. Nurses then provided eight weekly telephone calls to assist caregivers in assessing their own needs and delivering individualized interventions using the notebook as a guide.

Written tip sheets were initially developed for each of the 32 items in the CNCC addressing the five areas of skill-building needs (Bakas et al., 2002). Content for the tip sheets was derived from existing literature as well as from qualitative interviews with stroke caregivers (Bakas et al., 2002). Nine tip sheets addressed finding information about stroke, including warning signs, lifestyle changes, risk factors, medications, and where to find more information and resources for providing care. Seven tip sheets focused on managing emotions and behaviors of the stroke survivor, including depressive symptoms, feelings of dependency, changes in personality and thinking, difficult behaviors, social activities, and communication problems. Five tip sheets addressed providing physical care and included

strategies for assisting the survivor with medications, exercises, mobility and falls, eating and swallowing difficulties, and providing personal care (e.g., bathing, dressing, incontinence). Four tip sheets addressed providing instrumental care, such as managing finances, providing transportation, and finding respite care. Seven tip sheets addressed dealing with one's own personal responses to providing care and covered the caregivers' own emotions, new responsibilities, asking family and friends for help, balancing work and family, keeping an active social life, as well as taking care of their own health. In addition, five process tip sheets were developed to provide skill-building strategies such as strengthening existing skills, screening for depressive symptoms, maintaining realistic expectations, problem solving, and communicating with health professionals. A workbook detailing stress management strategies (Beck, Rush, Shaw, & Emery, 1979; Burns, 1999; Greenbarger & Padesky, 1995) was specifically developed for the survivor and the caregiver. The process tip sheets and the stress management workbook were originally based on Lazarus' Theory of Stress and Coping (Lazarus, 1991; Lazarus & Folkman, 1984) and Mishel's Uncertainty in Illness Theory (Mishel, 1988, 1990). The 37 tip sheets and the stress management workbook were evaluated by 10 experts. Caregivers also received a brochure from the American Stroke Association (ASA) that briefly described the importance of family support, the financial impact of stroke, and taking care of oneself as a caregiver. It also contained a list of resources as well as a list of warning signs for stroke and heart attack. The ASA brochure provided only a fraction of the content provided in the TASK tip sheets.

Attention control

Caregivers randomized to the attention control group received eight weekly calls from a nurse and the brochure on family caregiving from the ASA. Nurses provided active listening and paraphrasing, but did not offer advice or information to the caregivers other than to contact their healthcare provider or the ASA for more information.

Sample and Procedures

During the development of the TASK program, 10 experts rated the content validity ratings of the TASK intervention components. The experts included 4 nurses (2 doctoral nurse researchers, 1 rehabilitation nurse case manager, 1 rehabilitation nurse clinician), 1 project manager involved in the Resources for Enhancing Alzheimer's Caregiver Health (REACH) studies (Schulz et al., 2003), 1 neuropsychologist, and 4 experienced stroke lay caregivers. Similar to procedures for establishing content validity for measurement tools (De Vellis, 2003; Netemeyer, Bearden, & Sharma, 2003), the experts were asked to rate the degree to which the content in each tip sheet addressed the CNCC need or process (problem relevance) from which it was developed. This was consistent with Trochim's (2001) definition of content validity for interventions as translating a cause construct (what goes into intervention) into an observation (the actual intervention). Experts were also asked to rate the accuracy of the information, feasibility of the strategies, and acceptability of the tip sheets for stroke caregivers. Suggestions for editorial changes and improvement in the tip sheets were solicited as well.

After incorporating feedback from these experts, a randomized controlled clinical trial design was employed to compare TASK intervention satisfaction ($n=21$) with satisfaction in an attention control group ($n=19$). The 40 stroke caregivers were recruited within 8 weeks after the survivor was discharged home. Data collection occurred between March 2005 and June 2006. Details regarding recruitment, randomization, and a participant flow diagram have been published elsewhere (Bakas et al., 2009). Most caregivers were female (73%), spouses (58%) or adult children (25%), and Caucasian (73%) or African American (25%; Bakas et al., 2009). There were significantly more male survivors in the attention control group ($P<.05$), but adjusting for survivor gender did not influence the findings. There were no significant differences between the groups for other caregiver and survivor characteristics (Bakas et al., 2009). Informed consent and approval by the university institutional review board was obtained prior to data collection.

Instruments

To assess the content validity of the TASK intervention, investigator-designed rating forms were self-administered by the 10 experts, and then returned to the investigator either by mail or in person. Ratings for accuracy, feasibility, acceptability, and problem relevance were averaged across the 10 experts, with possible scores for each group of tip sheets ranging from 1=*strongly disagree* to 5=*strongly agree*. Ratings on the relevance of the CNCC and intervener scripts and protocols were also obtained.

To assess satisfaction with the TASK intervention and attention control procedures, investigator-designed rating forms were used to collect data from caregivers through telephone interviews by research assistants. These data were collected at the end of the intervention. Items were rated using 5-point Likert-type response scales ranging from 1=*strongly disagree* to 5=*strongly agree*. Caregivers in the TASK Intervention group responded to the items about the TASK tip sheets. Caregivers in the attention control group responded in reference to the ASA brochure. Average scores were computed for each subscale (usefulness, ease of use, and acceptability) as well as a total score (satisfaction) so that all possible scores ranged from 1 to 5. Internal consistency reliability estimates using Cronbach's alpha for each of the subscales and the total satisfaction scale using the entire sample ($N=40$) were acceptable (usefulness .83; ease of use .75; acceptability .76; total satisfaction .93). Open-ended questions regarding the TASK intervention or attention control procedures were also asked, with caregiver responses being audio-taped and transcribed verbatim.

Data Analysis

Data were analyzed using descriptive statistics and independent sample t tests. One-sample Kolmogorov-Smirnov Z tests were used to assess normality, with no significant non-normality detected. In order to maintain an overall Type I error rate of $p<.05$, the procedure outlined by Hochberg (1988) was incorporated to account for multiple tests for items within satisfaction domains. Cohen's d was used as a measure of effect size with $d=.2$ small, $d=.5$ medium, and $d=.8$ large (Cohen, 1988). Qualitative comments from stroke caregivers in each

group were categorized using a predetermined code list addressing the satisfaction domains (usefulness, ease of use, acceptability) for content analysis (Miles & Huberman, 1994).

Results

Content Validity

Table 1 shows expert ratings for the TASK tip sheets within the five main areas on the CNCC, the process tip sheets, and the stress management workbook. Mean expert ratings provided evidence of content validity for the 32 CNCC-based tip sheets and the five process tip sheets (accuracy 4.71, feasibility 4.46, acceptability, 4.40, problem relevance 4.67). The stress management workbook was also rated highly by the 10 experts (average rating=4.13). The average overall expert rating for the TASK program was 4.56. Tip sheets and TASK intervention materials were revised based on qualitative comments made by individual experts. As a result of the feedback, one tip sheet was deleted and two tip sheets were added. The tip sheet that was deleted focused on finding information about where to go for one's own healthcare needs. It was deleted because it overlapped with another tip sheet that focused on taking care of one's own health. Based on expert reviewer recommendations, two tip sheets were added that focused on (a) love, affection, and sexuality issues: and (b) legal healthcare issues and social security. The current TASK notebook contains 38 written tip sheets (33 based on the five CNCC areas; 5 on process tip sheets), a stress management workbook, and a family caregiving brochure from the ASA. The experts also rated the relevance of the CNCC as an assessment form for stroke caregivers (4.70), and rated the degree to which they thought it would be feasible for stroke caregivers to receive interventions from the nurse following the intervener script and protocol (4.00). However, the degree to which experts thought the nurse would be able to follow the intervener script and protocol was lower (3.60), and therefore changes were made to simplify and clarify the script and protocol prior to implementation. Treatment fidelity (design, training, delivery, receipt, and enactment) was monitored during implementation of the TASK program in the randomized controlled clinical trial with details reported elsewhere (Bakas et al., 2009). The TASK intervention and attention control procedures were delivered by four nurses who had a current registered nurse license, and who were cross-trained for both TASK intervention and control procedures using standardized protocols and treatment manuals (Bakas et al., 2009).

Satisfaction

Caregiver ratings for satisfaction with the TASK intervention and attention control procedures appear in Table 2. Caregivers in the TASK group scored significantly higher than the attention control group on all satisfaction domains (usefulness $t(38)=2.56, p=.02, d=.83$; ease of use $t(38)=2.46, p=.02, d=.80$; acceptability $t(38)=2.00, p=.05, d=.65$) and on overall satisfaction $t(38)=2.51, P=.02$, which had a large effect size $d=.81$. When adjusting the p values to maintain an overall Type I error rate of $P<.05$ for items within each satisfaction domain (Hochberg, 1988), rejection of the null was consistent using both adjusted and unadjusted values.

Qualitative comments from the TASK group

Within the usefulness category, all of the caregivers in the TASK group indicated that the program helped them. A few representative quotes from this category are presented here. A male adult child caregiver said, “I’d never been in this situation before and I had absolutely no clue of what to do or how to go about anything, so I think the information that you provided was just what I needed.” A female adult child caregiver said,

I was kind of down in the dumps and that (tip sheet on depression) helped me a lot... I want to thank you for entering me into the program because honestly, I cried a bunch on those nurses' shoulders and I really appreciate it.

A female spouse caregiver said, “(The TASK program) opened my eyes up, made my mind up, showed I had to take care of me. I was neglecting myself. I think I’m beginning to take care of myself now.” Other caregivers in the TASK group talked about how much the tip sheets helped them and how they felt supported by the nurse, Within the ease of use category, a female adult child caregiver in the TASK group said,

If I had a question. I could go into this notebook and find what I needed even up to and including calling the doctor and insisting that they give me an answer. I think as a reference the pages are just wonderful and I've found myself going back and rereading some of the same ones (tip sheets) over and over again.

A female spouse caregiver said, “I feel like we’ve been given some excellent tools and guidelines to help us get through this.” Within the acceptability category, a female adult child caregiver in the TASK group said,

When you called me I didn't realize I needed help because I was a superwoman and I was going to do it if it killed me... and it almost killed me... What I like about it is that you not only deal with the issues of the person with stroke, but you also deal with the health issues and things of the caregiver.

All of the caregivers in the TASK group said they would recommend the program to other caregivers.

Qualitative comments from the attention control group

Most of the caregivers in the attention control group (17 of 19; 89%) said that the program helped them. Within the usefulness category, a representative comment by a female spouse caregiver in this group was, “It was just a real comfort to me to have that call and for somebody to just listen to what I was going through... This has helped me... it really has.” Within the ease of use category, a caregiver (aunt) said. “My work schedule is erratic, but everybody has been very accommodating.” A female spouse caregiver said, “And you don't have to initiate the call, you know, it just happens.” Within the acceptability domain, a typical comment by a female adult child caregiver was, “The nurses call me and I enjoy talking with them.” A female caregiver in the attention control group said, “I would have liked basically the things that I know about strokes or things I looked up on the Internet.” All of the caregivers in the attention control group said they would recommend the program to other caregivers.

Discussion

Content Validity

Establishing evidence of content validity for newly developed interventions from experts is an important component of intervention research. This study is unique in that a group of 10 content experts (nurses, project manager, neuropsychologist, and lay caregivers) provided positive ratings for tip sheets that made up the written components of the TASK program. The use of experts not only provided evidence of content validity for the TASK program, but also revealed important areas that could be further strengthened prior to testing the intervention. For example, comments made by experts resulted in further refinement of specific tip sheets and the addition of two others. Lower expert ratings regarding how well nurses would be able to follow the intervener script and protocol led to important revisions to improve this process. Researchers are urged to consider the use of content experts early in the development of interventions so that important revisions can be made before testing interventions in costly clinical trials.

Satisfaction

With the current emphasis on respect for the needs, values, and preferences of individuals (Institute of Medicine, 2001), measuring satisfaction is a key component of intervention research (Royse, Thyer, Padgett, & Logan, 2001). Satisfaction (usefulness, ease of use, acceptability) was measured using a scale specifically designed for this study that showed acceptable evidence of internal consistency reliability in the subscales as well as the total scale. Although satisfaction ratings were positive for both TASK intervention and attention control groups (above the 3.0 scale midpoint for all of the items), ratings were significantly higher for caregivers in the TASK group. These findings are encouraging because not only does it show that the TASK program is preferred, but that caregivers in the attention control group also benefited from the study. Showing that an attention control group can benefit has important implications for future clinical trials in terms of retaining participants in the control condition. In fact, scores were similar for both groups on items such as “The calls from the nurse each week were convenient” and “I liked getting calls from the nurse.” These findings also underscore the importance of having real-time interactions with the nurse. However, scores on items such as “The (TASK tip sheets; ASA pamphlet) addressed the problems I was having” and “The nurse addressed things I wanted to know” were significantly higher for the TASK program.

Another positive aspect of this study was the richness of the qualitative data that provided a better understanding of the actual experiences of the caregivers enrolled in the study. Qualitative data were categorized according to the three satisfaction domains explored in this study (usefulness, ease of use, acceptability). The findings clearly supported the three areas and the key quotes provided insight into the value of both TASK and attention control procedures. Many of the quotes, in fact, mirrored items in the Satisfaction Scale, providing even more support for the scale's validity. For example, the quote from a caregiver in the TASK group “So I think the information you provided was just what I needed” mirrors the usefulness item “The nurse addressed things I wanted to know.” The quote “What I like about it is that you not only deal with the issues of the person with stroke, but you also deal

with the health issues and things of the caregiver” more fully illustrates the acceptability items in Table 2. This quote was especially illustrative in that the caregiver realized that she was not a superhero. The quote from a caregiver in the attention control group that stated “I would have liked basically the things that I know about strokes or things I looked up on the Internet” is consistent with the significantly lower ratings that the attention control group had on the item “The nurse addressed things that I wanted to know.” The similarity of the qualitative findings with the satisfaction items provide further support for the scale, and also provide more detailed insight as to the benefits of the TASK program.

Limitations

Although a small sample size is appropriate for testing the feasibility of a new intervention, generalizability of the findings from this study is limited to family caregivers of stroke survivors who are predominantly female, spouses, adult children, and either Caucasian or African American. Further research is recommended that includes more ethnically diverse stroke caregivers from a variety of national and international settings.

Conclusions

Establishing evidence of content validity and user satisfaction for interventions is important before conducting large clinical trials of efficacy. In this study, an intervention aimed at caregivers of stroke survivors, the TASK program, demonstrated evidence of content validity and user satisfaction. Qualitative data provided further support for satisfaction with the TASK program over an attention control group. The TASK is a promising intervention, having shown preliminary efficacy in a small sample (Bakas et al., 2009), and future research to test its efficacy and effectiveness in a large sample is needed. If shown to be effective in future studies, the TASK program may be a viable telephone-based program that can be implemented by nurses to support family caregivers during the first few months after stroke survivors are discharged home.

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References

- American Association of Retired Persons. AARP statement to the 53rd session of the United Nations Commission on the Status of Women. 2009. Retrieved March 16, 2009 from <http://www.un.org/womenwatch/daw/csw/53sess.htm>
- Bakas T, Austin JK, Okonkwo KF, Lewis RR, Chadwick LC. Needs, concerns, strategies, and advice of stroke caregivers the first 6 months after discharge. *Journal of Neuroscience Nursing*. 2002; 34:242–251. [PubMed: 12391740]
- Bakas T, Farran CJ, Austin JK, Given BA, Johnson EA, Williams LS. Stroke caregiver outcomes from the Telephone Assessment and Skill-Building Kit (TASK). *Topics in Stroke Rehabilitation*. 2009; 16(2):105–121. [PubMed: 19581197]

- Beck, AT., Rush, AJ., Shaw, BE., Emery, G. Cognitive therapy of depression. New York: Guilford; 1979.
- Burns, DD. The feeling good handbook. New York: Plume; 1999.
- Cohen, J. Statistical power analysis for the behavioral sciences. 2nd. Hillsdale NJ: Lawrence Erlbaum; 1988.
- De Veilis, R. Scale development Theory and applications. 2nd. Newbury Park, CA: Sage; 2003.
- Duncan PW, Zorowitz R, Bates B, Choi JY, Glasberg JJ, Graham GD, et al. Management of adult stroke rehabilitation care. *Stroke*. 2005; 36:e100–e143. [PubMed: 16120836]
- Family Caregiver Alliance. Caregiver assessment: Principles, guidelines and strategies for change Report front a National Consensus Development Conference. Vol. I. San Francisco: Author; 2006a.
- Family Caregiver Alliance. Caregiver assessment Voices and views from the field Report from a National Consensus Development Conference. Vol. II. San Francisco: Author; 2006b.
- Grant JS, Elliott TR, Weaver M, Bartolucci AA, Giger JN. Telephone intervention with family caregivers of stroke survivors after rehabilitation. *Stroke*. 2002; 33:2060–2065. [PubMed: 12154263]
- Greenbarger, D., Padesky, CA. Mind over mood Change how you feel by changing the way you think. New York: Guilford; 1995.
- Hochberg Y. A sharper Bonferroni procedure for multiple tests of significance. *Biometrika*. 1988; 75:800–802.
- Institute of Medicine. Crossing the quality chasm- A new health system for the 21st century. Washington, DC: National Academy Press; 2001.
- Kelly-Hayes M, Robertson JT, Broderick JP, Duncan PW, Hershey LA, Roth EJ, et al. The American Heart Association Stroke Outcome Classification. *Stroke*. 1998; 29:1274–1280. [PubMed: 9626308]
- King RB, Semik PE. Stroke caregiving: Difficult times, resource use, and needs during the first 2 years. *Journal of Gerontological Nursing*. 2006; 32:37–44.
- Lazarus, RS. Emotion and adaptation. New York: Oxford University Press; 1991.
- Lazarus, RS., Folkman, S. Stress, appraisal, and coping. New York: Springer; 1984.
- Lloyd-Jones D, Adams R, Carnethon M, De Siinone G, Ferguson B, Flegal K, et al. Heart disease and stroke statistics 2009 update: A report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation*. 2009; 119:e21–e181. [PubMed: 19075105]
- Miles, MB., Huberman, AM. Qualitative data analysis- An expanded sourcebook. 2nd. Thousand Oaks CA: Sage; 1994.
- Mishel MH. Uncertainty in illness. *Image: Journal of Nursing Scholarship*. 1988; 20(4):225–232.
- Mishel MH. Reconceptualization of the uncertainty in illness theory. *Image: Journal of Nursing Scholarship*. 1990; 22(4):256–262.
- Netemeyer, RG., Bearden, WO., Shartna, S. Scaling procedures: Issues and applications. Thousand Oaks, CA: Sage; 2003.
- Royse, D., Thyer, BA., Padgett, DK., Logan, TK. Program evaluation: An introduction. 3rd. Belmont, CA: Wadsworth/Thompson Learning; 2001.
- Schulz R, Belle SH, Czaja SJ, Gitlin LN, Wisniewski SR, Ory MG. for the REACH investigators. Introduction to the special session on Resources for Enhancing Alzheimer's Caregiver Health (REACH). *Psychology and Aging*. 2003; 18(3):357–360. [PubMed: 14518799]
- Smith J, Forster A, House A, Knapp P, Wright JJ, Young J. Information provision for stroke patients and their caregivers. *Cochrane Database of Systematic Reviews*. 2008; doi: 10.1002/14651858.CD00.1919.pub2
- Trochim, W. The research methods knowledge base. 2nd ed. Cincinnati, OH: Atomic Dog; 2001.
- Van Heugten C, Visser-Meily A, Post M, Lindeman E. Care for carers of stroke patients: Evidence-based clinical practice guidelines. *Journal of Rehabilitation Medicine*. 2006; 38:153–158. [PubMed: 16702081]
- ven den Heuvel ETP, de Witte LP, Nooyen-Haazen I, Sanderman R, Meyboom-de Jong B. Short-term effects of a group support program and an individual support program for caregivers of stroke patients. *Patient Education and Counseling*. 2000; 40:109–120. [PubMed: 10771365]

Visser-Meily A, van Heugten C, Post M, Schepers V, Lindeman E. Intervention studies for caregivers of stroke survivors: A critical review. *Patient Education and Counseling*. 2005; 56:257–267. [PubMed: 15721967]

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Clinical Resources

The following Web sites provide more information about stroke and family caregiving that may be useful for incorporating new knowledge into practice.

- American Stroke Association: www.strokeassociation.org
- National Stroke Association: www.stroke.org
- National Family Caregivers Association: <http://www.thefamilycaregiver.org/>

Table 1
Mean Content Validity Expert Ratings for the TASK Tip Sheets (N= 10)

Category ^a	Problem relevance	Accuracy	Feasibility	Acceptability	Row totals
Informational need	4.68	4.79	4.46	4.40	4.58
Managing emotions and behaviors	4.77	4.71	4.53	4.43	4.60
Providing physical care	4.84	4.75	4.54	4.53	4.67
Providing instrumental care	4.38	4.56	4.35	4.27	4.39
Caregiver's responses to caregiving	4.66	4.70	4.48	4.48	4.58
TASK process tip sheets	4.59	4.66	4.32	4.23	4.45
Column totals	4.67	4.71	4.46	4.40	4.56
Dealing with emotions after stroke. A workbook for stroke survivors and caregivers	4.50	4.60	3.50	3.90	4.13

^aResponse scale: 1 =strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5 =strongly agree.

Table 2
Satisfaction Usefulness, Ease of Use and Acceptability) by Caregivers in the TASK Group (n=21) and ASA Attention Control Group (n=19)

Satisfaction subscales and items ^a	TASK Mean (SD)	ASA Mean (SD)	t	P	d
Usefulness subscale	4.40(.61)	3.88(.68)	2.56	.02*	.83
The (TASK tip sheets, ASA pamphlet) addressed the problems I was having as a caregiver	4.28(.90)	3.58 (.69)	2.57	.01*	.83
The (TASK tip sheets, ASA pamphlet) worked well for me.	4.19(1.08)	3.68 (.67)	1.76	.09	.57
The nurse addressed things I wanted to know.	4.71 (.46)	4.15 (.83)	2.64	.01*	.86
The calls from the nurse helped me.	4.42 (.68)	4.11 (.99)	1.21	.23	.39
Ease of use subscale	4.42 (.50)	4.03 (.54)	2.46	.02*	.80
The (TASK tip sheets, ASA pamphlet) were easy to use.	4.52(.51)	4.00 (.67)	2.80	.01*	.91
I plan to use the (TASK tip sheets, ASA pamphlet) as a reference for the future.	4.38 (.67)	3.73 (.81)	2.76	.01*	.90
The calls from the nurse each week were convenient.	4.38 (.59)	4.34 (.53)	.22	.83	.07
Acceptability subscale	4.38(.71)	3.94 (.66)	2.00	.05*	.65
I liked the (TASK tip sheets; ASA pamphlet)	4.38 (.59)	3.79 (.63)	3.07	.00*	.99
I liked getting calls from the nurse.	4.38 (.92)	4.10 (.88)	.97	.34	.31
Total satisfaction scale	4.41 (.57)	3.94 (.60)	2.51	.02*	.81

* p .05,

^aResponse scale. 1 =strongly disagree; 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree