

# Journal of Gerontological Social Work



ISSN: 0163-4372 (Print) 1540-4048 (Online) Journal homepage: http://www.tandfonline.com/loi/wger20

# Patient-Centered Approach to Building Problem Solving Skills Among Older Primary Care Patients: Problems Identified and Resolved

Susan Enguidanos , Alexis Coulourides Kogan , Bronwyn Keefe , Scott Miyake Geron & Lynne Katz

**To cite this article:** Susan Enguidanos , Alexis Coulourides Kogan , Bronwyn Keefe , Scott Miyake Geron & Lynne Katz (2011) Patient-Centered Approach to Building Problem Solving Skills Among Older Primary Care Patients: Problems Identified and Resolved, Journal of Gerontological Social Work, 54:3, 276-291

To link to this article: <a href="http://dx.doi.org/10.1080/01634372.2011.552939">http://dx.doi.org/10.1080/01634372.2011.552939</a>

|        | Published online: 31 Mar 2011.                               |
|--------|--|
|        | Submit your article to this journal $oldsymbol{\mathcal{C}}$ |
| ılıl   | Article views: 593   |
| a<br>a | View related articles 🗷                                      |
| 4      | Citing articles: 2 View citing articles 🗗                    |

Full Terms & Conditions of access and use can be found at http://www.tandfonline.com/action/journalInformation?journalCode=wger20

Journal of Gerontological Social Work, 54:276–291, 2011

Copyright © Taylor & Francis Group, LLC ISSN: 0163-4372 print/1540-4048 online DOI: 10.1080/01634372.2011.552939



# Patient-Centered Approach to Building Problem Solving Skills Among Older Primary Care Patients: Problems Identified and Resolved

#### SUSAN ENGUIDANOS and ALEXIS COULOURIDES KOGAN

Leonard Davis School of Gerontology, University of Southern California, Los Angeles, California, USA and Partners in Care Foundation, San Fernando, California, USA

#### BRONWYN KEEFE and SCOTT MIYAKE GERON

Boston University School of Social Work, Boston, Massachusetts, USA

#### LYNNE KATZ

Kaiser Permanente Bellflower Medical Center, Downey, California, USA

This article describes problems identified by older primary care patients enrolled in Problem Solving Therapy (PST), and explores factors associated with successful problem resolution. PST patients received 1 to 8, 45-min sessions with a social worker. Patients identified problems in their lives and directed the focus of subsequent sessions as consistent with the steps of PST. The 107 patients identified 568 problems, 59% of which were resolved. Most commonly identified problems included health related issues such as need for exercise or weight loss activities, medical care and medical equipment needs, home and garden maintenance, and gathering information on their medical condition. Problems identified by patients were 2.2 times more likely to be solved than those identified by a health care professional. Using PST in primary care may facilitate patients in addressing key health and wellness issues.

KEYWORDS problem-solving therapy, primary care, older adults, social work, patient-centered

Received 27 August 2010; accepted 5 January 2011.

Address correspondence to Susan Enguidanos, MPH, PhD, Hanson Family Assistant Professor of Gerontology, University of Southern California, Davis School of Gerontology, 3715 McClintock Avenue, Gero 228-B, Los Angeles, CA 90089–0191. E-mail: Enguidan@usc.edu

#### INTRODUCTION

Primary care physicians face numerous challenges when treating frail, older adult patients. Patient problems include complex health needs arising from multiple chronic conditions, low health literacy, socioeconomic stressors (Counsell et al., 2007; Kane, 2002), and reduced compliance with recommended health care behaviors (Wilson et al., 2007). Although the patients' failure to adhere to treatment recommendations is a primary barrier to effectively treating older adults with multiple chronic conditions presenting in primary care, the providers' lack of adequate time to evaluate, treat, and educate their older patients in a pressured environment also serves as a considerable impediment (Linzer et al., 2000; Keefe, Geron, & Enguidanos, 2009; Schauffler & Rodriguez, 1993). Often restricted to 10–15 min per patient, physicians rarely have the time to address psychosocial issues, especially when combined with multiple medical comorbidities (Clarke, Neuwirth, & Bernstein, 1986; Netting & Williams, 2000).

One approach to address both disease self-management and psychosocial issues has been implementation of problem-solving therapy (PST), a cognitive-behavioral intervention that facilitates the application and acceptance of problem-solving attitudes and skills (D'Zurilla & Goldfried, 1971). Willis and colleagues (2006) observed that older adults who received cognitive training to enhance problem-solving strategies retained that ability and reaped long-term benefits with stable, positive effects found at the 5-year follow-up that consisted of decreased difficulty in performing instrumental activities of daily living as compared to control group participants (effect size 0.29, 99% CI, 0.03-0.55). Additionally, studies integrating PST within primary care settings have utilized nurses or social workers to conduct the intervention (Geron & Keefe, 2006; Unutzer et al., 2001) to address the time constraints of primary care physicians. Perhaps best known of these interventions is Project IMPACT (Improving Mood-Promoting Access to Collaborative Treatment), a randomized trial of a collaborative primary carebased model for late-life depression. The intervention integrated PST and medication management provided in the primary care clinic by a depression care manager, with results revealing the IMPACT program to be more effective than usual care in treating depression. At 8 months, 45% of IMPACT patients had a minimum of a 50% reduction in depressive symptoms, as compared to 19% of usual care patients (Unutzer et al., 2002). Furthermore, Project IMPACT led to significant physical functioning improvements among intervention subjects (Callahan et al., 2006) and proved to be a cost-effective treatment mode (Katon et al., 2005).

Previous studies involving the use of PST among older adults have demonstrated improved outcomes in addressing conditions such as depression (Gellis, McGinty, Horowitz, Bruce, & Misener, 2007; Hegel, 2000), chronic pain or unexplained physical symptoms (Karp, Shega, Morone,

& Weiner, 2008; Wilkinson & Mynors-Wallis, 1994), and self-management of diabetes and related symptoms (Amoako & Skelly, 2007). Moreover, federal funding supporting further studies indicates the importance of a patient-centered approach to care that encourages disease self-management, health promotion, and patient empowerment through behavioral changes. A patient-centered approach can, in turn, delay progression or onset of additional conditions, improve physical functioning, reduce symptoms, and enhance the quality of life of patients with chronic conditions (Bennett et al., 2005; Burke, Arkowitz, & Menchola, 2003). The use of PST with older adults demonstrates the positive impact of these interventions on physical and psychological outcomes for older adults, many of which are consistent with the goals of the primary care physicians who treat older patients. In spite of the demonstrated effectiveness of PST models, implementation in primary care settings confronts several barriers, including belief that PST program goals compete with primary care medical goals (Nutting, et al., 2008) and the lack of evidence of sustainability of patient-centered programs post clinical trail to warrant implementation (Blasinsky et al., 2006). Therefore, investigation into the types of problems identified by the patients in PST interventions may provide key insight for primary care clinicians and help to overcome barriers to integrating PST into primary care. Understanding the older patient's concerns through the problems they identify can better inform primary care physicians, nurses, and social workers of the challenges faced by this population and the potential value of the intervention to primary care practice. Additionally, exploring factors associated with problem resolution may support the development of new methods that can improve older patient outcomes in primary care.

This article presents a descriptive analysis of problems identified by older patients enrolled in a social work facilitated PST intervention in primary care. The specific research questions were:

- 1. What are the problems identified by older primary care patients with multiple chronic conditions?
- 2. What factors are associated with successful problem resolution?

#### **METHODS**

Data used in this study were part of a larger randomized controlled trial, conducted from October 2004 to October 2006, testing the effectiveness of a PST-based social work intervention in two primary care offices of a managed care organization located in the metropolitan Los Angeles area. Inclusion criteria and PST intervention methods employed in the randomized controlled trial are identical to those in this study (Geron & Keefe, 2006). Formal review and approval by the respective institutional review boards

(IRBs) for both the clinical and research sites were obtained. This article reports on findings from patients receiving problem solving therapy within a primary care setting.

## Participants and Recruitment

Participants were recruited from two primary care offices by reviewing lists of pending visits for the week. Patients aged 65 years and older with two or more chronic conditions and with at least one emergency room visit or hospital admission in the past 6 months, met the initial criteria for study inclusion and were contacted via telephone by graduate level research assistants for further screening. This screening included a cognitive assessment (as measured by a score of seven or less on the Short Portable Mental Status Questionnaire; Pfeiffer, 1975) and determination that their primary language was English. Patients meeting these criteria and consenting to participate in the study were enrolled and randomly assigned to the PST intervention or the usual care group (continued receipt of HMO services). Participants in this analysis, a subset of the original study population, include only those patients engaged in the problem solving therapy intervention.

The overarching goal of the study was to determine whether a social work PST intervention was improved psychological and physical outcomes for older primary care patients with multiple chronic conditions.

#### PST Intervention

PST teaches patients to address their life difficulties by reducing problems into smaller sections and identifying specific steps toward making positive change (Nezu & Nezu, 2009). This skills-training approach emphasizes patient-directed problem identification and resolution. PST steps generally include problem orientation, problem definition and formulation, generation of alternatives, decision making, and solution implementation and verification.

The intervention was conducted at the primary care clinic or at the patient's home (if the patient was unable to get to the clinic) and included between four and eight 45-min PST sessions with a social worker. However, 39 patients elected to terminate PST before the four sessions, and 16 patients received more than eight sessions, primarily due to abbreviated sessions resulting from scheduling issues or patient illness. The first session began with the patient formulating a list of problems to address. Although the majority of problems were identified by the patient, the social worker introduced key problems that he or she identified, as well as those indicated by the primary care physician. These problems were added to the problem list if the patient agreed that they were of concern. No problems were included on the problem list without the patient's agreement and assent. Problems generated on this list were addressed in subsequent PST sessions.

Following problem identification, patients began the task of selecting a problem from the list to solve with guidance from the social worker. After selecting a problem, the patients generated potential solutions, selected and implemented a solution, and began the problem resolution process. To the extent possible, patients selected problems and methods for independent resolution, consistent with the PST model. Subsequent sessions continued with PST steps until the problem was resolved, at which time the patient would select another from the list and repeat the process. More details on the PST steps are published elsewhere (Enguidanos, Davis, & Katz, 2005).

Following completion of the fourth and subsequent sessions, social workers conducted chart reviews to determine if the patient met criteria for discharge. These criteria included: (a) the successful resolution of two problems during PST sessions and (b) independent application and resolution of at least one problem outside of the sessions (total of three problems resolved). Individuals who failed to meet discharge criteria at the end of four sessions received up to four additional PST sessions.

# PST Training and Fidelity

Social workers were trained by national experts on advanced PST methods that focused on the common issues specific to working with older adults. Training also incorporated a role-playing element for social workers to further develop, test, and refine their PST skills in a practice setting. Once the intervention was underway, bi-monthly case conferences were held with study investigators, supervisory clinical staff with significant PST training, and social workers to present all cases and discuss any problems. Additional measures to ensure fidelity of the intervention included audio tape recording (with patient signed consent) of all PST sessions for random review by on-site PST experts, with feedback and additional training as necessary.

#### Data Collection and Measures

Data on problems and resolution were recorded by the social worker on the care plan and kept in the patient's chart. Upon termination of PST sessions, the chart was forwarded to a research assistant for entry into a database.

Demographic characteristics. Patient characteristics included participant's age, gender, marital status, ethnicity, and education level. Ethnicity referred to African American, Latino, Asian-Pacific Islander, Caucasian, other, or unknown. All demographic data were collected at time of study enrollment.

*Source of problem identification.* The person (patient, social worker, or physician) who identified the problem was listed on the problem sheet by the social worker at the first visit with the client. The problem sheet was kept

in the social work care plan and data entered into a spreadsheet. Additional problems and source of problem identification were added as they were identified in subsequent sessions.

*Problem type.* The specific problems to be addressed in PST sessions were recorded on the PST worksheets and maintained in the patient's social work file. Problems were entered as stated and later coded by two project researchers. Categories were identified out of the codes to further aggregate types of problems specified. Researchers identified categories independently and compared results to reach 100% agreement. These categories and examples of problems for each are listed in Table 1.

**TABLE 1** PST Problem Codes

|   | Identified |      | Resolved |      |  |  |
|---|------------|------|----------|------|--|--|
| Problem category                                | Number     | %    | Number   | %    | Examples   |  |
| Medical<br>Exercise/weight loss                 | 76         | 13.4 | 40       | 52.6 | Exercise 20min/day<br>5x/wk  |  |
| Medical care/medical equipment                  | 60         | 10.6 | 35       | 58.3 | Lose 5lbs by 3/1/05<br>Get a new scooter<br>Need dental work<br>done         |  |
| Disease info./disease self-management           | 49         | 8.6  | 32       | 65.3 | Not sure how much<br>pain meds to take<br>Better diabetes<br>self-management |  |
| Self-improvement/self-<br>care                  | 31         | 5.5  | 19       | 61.3 | To keep appointments on time Finally quit smoking                            |  |
| Psychosocial<br>House cleaning/yard<br>clearing | 52         | 9.2  | 32       | 61.5 | Clear out back and<br>side yard<br>Cleaning out<br>kitchen cabinets          |  |
| Home and personal organization                  | 44         | 7.7  | 25       | 56.8 | Organize books on bottom shelves Thin out clothes in closet                  |  |
| Transportation                                  | 40         | 7.0  | 23       | 57.5 | To arrange transportation to mass  |  |
| Pleasurable Activities                          | 40         | 7.0  | 24       | 60.0 | Car needs repairs Go to movies Unable to play golf                           |  |
| Socialization                                   | 33         | 5.8  | 23       | 69.7 | Go to see<br>grandchildren<br>Send out more<br>letters                       |  |

(Continued)

TABLE 1 (Continued)

|                                  | Identified |     | Resolved |      |   |  |
|----------------------------------|------------|-----|----------|------|---|--|
| Problem category                 | Number     | %   | Number   | %    | Examples  |  |
| Home improvement/<br>maintenance | 30         | 5.3 | 21       | 70.0 | Replace light socket<br>in kitchen<br>Decorate mantle for                       |  |
| Financial/legal issues           | 27         | 4.8 | 19       | 70.4 | Christmas<br>Put checkbook in<br>order  |  |
| Advanced care planning           | 23         | 4.0 | 10       | 43.5 | Living trust Complete DPAHC Get second signature on DPAHC                       |  |
| Psychological issues             | 21         | 3.7 | 10       | 47.6 | Anger management<br>Coping with loss of<br>spouse on my                         |  |
| Meals/food<br>preparation        | 19         | 3.3 | 14       | 73.7 | own Cook for a diabetic diet Plan weekly meals                                  |  |
| Miscellaneous                    | 15         | 2.6 | 7        | 47.6 | at home Saved 90 squares for quilt To be excused from                           |  |
| Living situation                 | 8          | 1.4 | 0        | 0    | jury duty Find a new senior apartment Son wants to move me to a retirement home |  |

Note. PST = Problem solving therapy. DPAHC = Durable Power of Attorney – Health Care.

Problem resolution. A dichotomous variable recording problem resolution  $(0 = not \ resolved; 1 = resolved)$  was recorded by the social worker in the PST worksheets. Problem resolution was reported to the social worker by the patient at each PST session, thus status of problem resolution was tracked and recorded at each session.

Clinical record. The social workers maintained clinical records recording contacts with each patient including the number, location, and length of time of each PST session. These data were aggregated and entered in a database.

# **Analysis**

Descriptive statistics were used to report demographic and care plan variables. Chi-square analyses were used to examine differences in problems identified by gender, age, ethnicity, and marital status. Person identifying problems was recoded into a dichotomous variable (patient vs. health care provider) due to the small cell sizes for social worker and physician identified problems. Chi-square tests were conducted to determine differences in types of problems identified by patient versus health care provider and number of problems solved by person identifying problems, gender, and ethnicity. Bivariate correlations were used to test relationships between number of problems solved and number of PST sessions conducted and age of participant.

Multivariate ordinary least squares (OLS) regression analysis was conducted to determine the variables associated with solving more problems, adjusting for patient demographic characteristics and number of PST sessions received. Logistic regression was conducted to examine predictors of problems being solved, using the problem as the unit of analysis. All analysis, descriptive statistics, bivariate analysis, and multivariate models were conducted using SPSS 15.0.

#### RESULTS

## Participant Demographics

From October 2004 to October 2006, 107 participants received PST. Nearly two-thirds (63%) were women, and three-quarters (75.7%) were White, with 15% African American and 6% Latino. Nearly half (45.8%) were married, 28% widowed, and 15% divorced. Overall, the sample reported more than 26% with a college degree; another 36% reported having some college education. Ages of participants ranged from 65 to 95, with an average age of 76 (SD = 6.4). All participants had two or more chronic conditions, with the majority of patients indicating they had two (39.3%) or three (39.3%) chronic diseases, followed by four or more (21.5%). The average number of chronic conditions among PST participants was 2.9 (SD = .97). See Table 2 for sample description.

#### **Problems**

Among the 107 participants receiving PST, a total of 568 problems were identified, with an average of 3.6 (SD=2) per patient. The vast majority (92%) of problems were identified by the patient, with 6% introduced by the social worker and 2% by the physician. Health care professionals were significantly more likely to identify issues related to development of advance directives ( $\chi^2=195.32,\ p<.001$ ). About one-fifth (19%) of the sample identified only one problem; 34%, two to three problems; 27%, four to five problems; and 20% identified six or more problems.

Bivariate analysis among demographic variables revealed that there was no difference in number of problems solved by gender (t = .47, p = .638).

**TABLE 2** PST Patient Demographics (n = 107)

|                    |                        | Frequency | Percent |
|--------------------|------------------------|-----------|---------|
| Gender             | Female                 | 67        | 62.6    |
| Age (years)        | M = 75.72; $SD = 6.44$ |           |         |
| Ethnicity          | Caucasian              | 81        | 75.7    |
| •                  | African American       | 15        | 14.0    |
|                    | Asian/Pacific Islander | 2         | 1.9     |
|                    | Latino                 | 6         | 5.6     |
|                    | Other                  | 3         | 2.8     |
| Chronic conditions | 2                      | 42        | 39.3    |
|                    | 3                      | 42        | 39.3    |
|                    | 4 or more              | 23        | 21.5    |
| Marital status     | Divorced               | 16        | 15.0    |
|                    | Married                | 49        | 45.8    |
|                    | Single                 | 12        | 11.2    |
|                    | Widowed                | 30        | 28.0    |
| Education          | Less than high school  | 15        | 13.9    |
|                    | High school graduate   | 26        | 24.3    |
|                    | Some college           | 38        | 35.5    |
|                    | College graduate       | 11        | 10.4    |
|                    | Post graduate          | 17        | 15.9    |

However, being older (r = .20, p = .042) and White (t = 2.13, p = .035) were positively associated with solving more problems.

After extensive coding, 15 categories of problems were identified (see Table 1). The most frequently identified problem categories included (a) need for exercise or weight loss (13.4%); (b) issues around medical care and medical equipment (10.6%); (c) problems with house and yard cleaning (9.2%); and (d) eliciting information regarding disease and self-management (8.6%).

Overall, about 59% of the problems identified were resolved within the first 10 weeks following study enrollment, during which time PST was provided, with widespread variation in the portion of each problem category resolved ( $\chi^2 = 26.09$ , p = .04). Meal/food preparation problems were most likely to be resolved, with 73.7% resolution. These problems included planning meals for the week, preparing a favorite meal, baking a cake, and even something as simple as making a grocery list. The meal category was closely followed by problems addressing financial/legal issues (70.4%), home improvement/maintenance (70.0%), and socialization (69.7%). Problems involving living situations, such as moves to nursing or assisted living facilities, were not resolved (or were least likely to be resolved) during the study period, followed by advance care planning (43.5%). Types of problems identified, but not resolved, in the category of advance care planning included: completing Durable Power of Attorney for Health Care (DPA-HC), to have a DPA-HC in the medical chart, and to get a second signature on the DPA-HC.

Although the vast majority of problems were identified by patients, physicians and social workers identified some as well. Problems identified by patients were more likely to be resolved (60.5% vs. 48.8%), although this finding was not statistically significant ( $\chi^2 = 2.26$ , p = .13).

#### **PST Sessions**

Although a minimum of four PST sessions were required for each participant, lack of compliance by 39 (31.2%) patients resulted in receipt of three or fewer sessions. Conversely, a maximum of eight PST sessions were intended, however 11 (8.8%) individuals received an abbreviated session due to illness, scheduling or availability, and issues with timeliness that was rectified by a subsequent ninth session. At the end of the eight-session intervention, five (4%) patients exhibiting severe depression were provided with two to four additional PST sessions. The majority of participants (56%) received the full dose of four to eight PST sessions; where the number of PST sessions engaged in by patients ranged from one (6.5%) to 12 (.9%), with the average patient engaging in 5.6 (SD = 2.5) sessions. The number of PST sessions conducted was significantly associated with the rate of problems solved (r = .63, p < .001), thus more PST sessions were positively correlated with solving a greater number of problems. Analysis included all participants receiving PST, even those who did not complete the full dose of the intervention (e.g., minimum of four PST sessions) to investigate the relationship between number of sessions and number of problems resolved.

# Variables Associated With Problem Solving

To better understand patient factors associated with successful problem solving, we conducted OLS regression, using the patient as the unit of analysis, controlling for significant demographic variables (age and ethnicity). The dependent variable was proportion of problems identified that were solved, developed by dividing the number of solved problems by the number identified. The model was significant (F = 4.31, df = 3, p = .007), explaining 11% of the variance in the number of problems solved. The number of PST session (p = .003) was positively associated with proportion of problems solved (see Table 3). After adjusting for these variables, significant effects of ethnicity and age were lost.

To further investigate the impact of problem type and source of problem identification on successful resolution of the problem, logistic regression was conducted using the problem as the unit of analysis. This analysis aimed to determine predictors of solving problems during PST sessions and included all problems (reference: medical problems) and patient as the identifier of problems (reference: physician and social work identified). Analysis of the multivariate model revealed that the model was significant ( $\chi^2 = 27.43$ , df = 15, p = .03); the type of problem selected was not significant

**TABLE 3** OLS Regression Equation Predicting Proportion of Problems Identified Successfully Resolved for Each Client (n = 107)

| Variable               | В    | Standard error | β   | p value |
|------------------------|------|----------------|-----|---------|
| Intercept              | .02  | .34            |     | .96     |
| Number of PST Sessions | .04  | .01            | .29 | <.01*** |
| Age                    | <.01 | .01            | .09 | .48     |
| Ethnicity (ref: Other) |      |                |     |         |
| White (non-Hispanic)   | .05  | .08            | .07 | .33     |

Note. OLS = Ordinary least squares. PST = Problem solving therapy.

**TABLE 4** Logistic Regression of Variables Associated With Successful Problem Resolution Versus Not Successful Resolution (n = 568)

| Variable                                | Coefficient | Odds ratio | p value |
|---|-------------|------------|---------|
| Intercept                               |             |            |         |
| Problem type (ref: medical problems)    | 26          | .75        | .49     |
| Miscellaneous                           | 61          | .54        | .29     |
| Advanced care planning                  | 15          | .86        | .79     |
| Exercise/weight loss                    | 37          | .69        | .31     |
| Financial/legal issues                  | .42         | .1.52      | .41     |
| Home improvement/maintenance            | .37         | 1.44       | .45     |
| Living situation                        | -21.52      | .00        | .99     |
| Disease info./disease self-management   | .32         | 1.38       | .43     |
| Pleasurable activities                  | 06          | .95        | .90     |
| Psychological issues                    | 47          | .62        | .36     |
| Self-improvement/self-care              | .06         | 1.06       | .90     |
| Socialization                           | .38         | 1.46       | .42     |
| House cleaning/yard clearing            | 01          | .99        | .98     |
| Transportation                          | 18          | .84        | .68     |
| Meals/food preparation                  | .55         | 1.73       | .62     |
| Home and personal organization          | 21          | .81        | .62     |
| Person identifying problem (ref: other) |             |            |         |
| Patient identified problem              | .77         | 2.15       | .04     |

*Note.* -2 Log likelihood = 738.02, df = 15, p = .03.

when adjusted for the person identifying the problem. Additionally, problems identified by patients were 2.2 times more likely to be solved than problems identified by physicians or social workers (95% CI [1.04, 14.46]) (see Table 4).

#### DISCUSSION

This article examined problems identified by older adult primary care patients with multiple chronic conditions and their social worker and physician. Although problems represented a diverse list of concerns, issues

 $R^2 = .11$ , F = 4.31, df = 3, p = .007.

<sup>\*</sup>p < .05. \*\*p < .01, \*\*\*p < .001.

surrounding health and management of health conditions were most often identified by patients. Although exercise and weight loss problems were most prevalent, issues surrounding meals and financial/legal concerns were more likely to be resolved during the course of the study. This may be due to the ease in solving these types of problems; although some health improvement goals may be long-term (e.g., weight loss), arranging for meal delivery services or attending congregate meals can be solved easily through enrollment in such programs.

Another factor contributing to the reduced likelihood of resolution may be in the definition of the goal to be achieved. The aim of PST is to break problems into smaller pieces and establish goals that could be achieved between sessions. Some of the unresolved problems may be due to setting ambitious goals, rather than breaking goals into achievable outcomes. For example, if Mr. Jones identifies being overweight as a problem, identifying weight loss as the goal in the PST session is not something that necessarily can be achieved before the subsequent session. The social worker could ask Mr. Jones what type of things he can do to lose weight. This would result in identification of smaller steps toward the overall problem, such as begin walking twice a week or substitute fruit for dessert after meals. Mr. Jones would then be able to weigh the pros and cons of engaging in each of these activities, selecting the one he determines to hold the most promise for resolution. Thus, the goal must be broken down into something that is achievable within a short period of time (e.g., a week) and within the control of the patient.

A primary outcome of this study focused on the problems most likely to be resolved, namely those identified by the patient versus the social worker or the physician. This finding reinforces the patient-oriented philosophy underlying problem solving therapy. Enguidanos and colleagues (2005) reported the shift in practice approach in using cognitive behavioral interventions. Their case studies suggest that by allowing patients to identify their own problems (compared to the care manager doing this for the patient), different types of problems were presented and patients had improved success in solving them. Resolution of problems they, themselves, identified may provide added motivation for working toward resolution, particularly if they are problems that have caused them anxiety or worry. Whereas asking a patient to work on a task or change a behavior that they do not view as concerning or important would be lower priority and would not mitigate anxiety or concerns they have about other issues.

Interestingly, many of the problems selected by patients in this study are consistent with primary care goals of improving patient health and disease self-management skills. Although it is probable that a physician, family member, or friend may acknowledge particular health and life difficulties that they view as pertinent to the patient, the fact that the patient is the one identifying an issue as problematic and something they want to work on is

key. The PST model centers on the patient's perspective, regardless of the issue identified. Although some of the problems identified by patients may seem irrelevant to primary care, they provide a mechanism for the patient to experience success in problem solving skills while alleviating a problem with which they are concerned. This allows them to then move on to another problem on their list that may be more in line with primary care goals. This finding may provide insights for primary care physicians and social workers on improved methods of engaging patients in their health plan and self-care.

It is also important to point out the relationship between the number of sessions attended and the number of problems solved. The linear relationship found between these variables attests to the need for patients to complete the full cycle of sessions (defined as eight sessions) to maintain maximum benefit. Further analysis is needed to investigate the relationship between the number of problems solved and long-term impact on patients in terms of health status and use of medical services, variables studied in the larger social work in primary care study (Geron & Keefe, 2006). Others (Arean, Hegel, Vannoy, Fan & Unutzer, 2008; Unutzer et al., 2008) have found PST to have long-term sustainable effects in lowered depression and use of medical services.

Although this study offers unique insight into problems identified and solved by older adults in primary care, it does have limitations. First, this study was conducted among a population of older adults within a managed care organization and did not target a specific problem, such as depression, as other studies have that incorporate cognitive behavioral approaches and, therefore, may not be generalizable to a broader set of older primary care patients. Additionally, this study examined the problems identified by patients enrolled in PST and does not examine the goals and progress made toward achieving this among patients receiving usual primary care services. Thus, it only provides descriptive data on those patients receiving the PST intervention. Finally, problem resolution was not tracked beyond the 2- month intervention period, leaving much unknown about the further successes that may have occurred following cessation of the PST sessions.

#### **CONCLUSION**

The patient-centered approach employed by PST practice encourages patients to identify problems they would like to solve and provides processes and support for them to address these problems. Results of this study reveal major concerns among older primary care patients and demonstrate the compatibility of these problems with social work goals and interventions, such as health promotion activities including exercise and diet. Longer follow-up

is needed to determine the patients' success in solving problems that require greater efforts and time (e.g., weight loss) to resolve. By allowing patients to identify and address these problems independently, social workers can support primary care patients in achieving their goals. Finally, social workers should encourage primary care patients to complete a full eight-session dose of PST to maximize benefits in terms of solving more problems as well as building a more complete skill-set to apply to future issues. A better trained older primary care patient may independently engage in PST when faced with subsequent life problems, which allows them to exercise control over issues previously perceived as burdensome; a liberating, if not empowering, translational life skill.

#### REFERENCES

- Amoako, E., & Skelly, A. (2007). Managing uncertainty in diabetes: An intervention for older African American women. *Ethnicity & Disease*, 17(3), 515–521.
- Arean, P., Hegel, M., Vannoy, S., Fan, M. Y., Unutzer, J. (2008). Effectivness of problem-solving therapy for older, primary care patients with depression: Results from the IMPACT project. *Gerontologist*, 48(3), 311–323.
- Bennett, J. A., Perrin, N. A., Hanson, G., Bennett, D., Gaynor, W., Flaherty-Robb, M., et al. (2005). Healthy aging demonstration project: Nurse coaching for behavior change in older adults. *Research in Nursing & Health*, 28, 187–197.
- Blasinsky, M., Goldman, H. H., & Unutzer, J. (2006). Project IMPACT: A report on barriers and facilitators to sustainability. *Administration & Policy in Mental Health*, 33(6), 718–29.
- Burke, B. L., Arkowitz, H., & Menchola, M. (2003). The efficacy of motivational interviewing: A meta-analysis of controlled clinical trials. *Journal of Consulting and Clinical Psychology*, 71, 843–861.
- Callahan, C. M., Boustani, M. A., Unverzagt, F. W., Austrom, M. G., Damush, T. M., Perkins, A. J., . . . Hendrie, H. C. (2006). Effectiveness of collaborative care for older adults with Alzheimer's disease in primary care: A randomized trial. *Journal of the American Geriatrics Society*, 295(18), 2148–2157.
- Clarke, S. S., Neuwirth, L., & Bernstein, R. H. (1986). An expanded social work role in a university hospital-based group practice: Service provider, physician educator and organizational consultant. *Social Work in Health Care*, 11(4), 1–17.
- Counsell, S. R., Callahan, C. M., Clark, D. O., Tu, W., Buttar, A. B., Stump, T. E., & Ricketts, G. D. (2007). Geriatric care management for low-income seniors: A randomized controlled trial. *Journal of the American Geriatrics Society*, 298(22), 2623–2633.
- D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and social behavior modification. *Journal of Abnormal Psychology*, 78, 107–126.
- Enguidanos, S. M., Davis, C., & Katz, L. (2005). Shifting the paradigm in geriatric care management: Moving from the medical model to patient-centered care. *Social Work in Health Care*, 41(1), 1–16.

- Gellis, Z. D., McGinty, J., Horowitz, A., Bruce, M. L., & Misener, E. (2007). Problem-solving therapy for late-life depression in home care: A randomized field trial. *American Journal of Geriatric Psychiatry*, *15*(11), 968–978.
- Geron, S. M., & Keefe, B. (2006). Moving evidence-based interventions to populations: A case study using social workers in primary care. *Home Health Care Services Quarterly*, 25(1–2), 95–113.
- Geron, S., Keefe, B., & Enguidanos, S. (2009). Integrating social workers into primary care: Physician and nurse perceptions of roles, benefits and challenges. *Social Work in Health Care*, 48(6), 579–596.
- Hegel, M. (2000). Training therapists in problem-solving therapy of depressive disorders in primary care. *Families, Systems & Health: The Journal of Collaborative Family Health Care*, 18(4), 423–436.
- Kane, R. L. (2002). Clinical challenges in the care of frail older persons. *Aging Clinical and Experimental Research*, 14(4), 300–306.
- Karp, J. F., Shega, J. W., Morone, N. E., & Weiner, D. K. (2008). Advances in understanding the mechanisms and management of persistent pain in older adults. *British Journal of Anaesthesia*, 101(1), 111–120.
- Katon, W. J., Schoenbaum, M., Fan, M. Y., Callahan, C. M., Williams, J. J., Hunkeler, E., . . . Unutzer, J. (2005). Cost-effectiveness of improving primary care treatment of late-life depression. *Archives of General Psychiatry*, 62(12), 1313–20.
- Linzer, M., Konrad, T. R., Douglas, J., McMurray, J. E., Pathman, D. E., Williams, E. S., . . . Rhodes, E. (2000). Managed care, time pressure, and physician job satisfaction: Results from the physician worklife study. *Journal of General Internal Medicine*, 15(7), 441–50.
- Netting, F. E., & Williams, F. G. (2000). Expanding the boundaries of primary care for elderly people. *Health & Social Work*, 25(4), 233–242.
- Nezu, A. M., & Nezu, C. M. (2009). *Problem-solving therapy*. Retrieved from http://www.drexel.edu/coas/psychology/clinicalresearch/PST%20description%20for%20DU%20web%20page.pdf.
- Nutting, P. A., Gallagher, K., Riley, K., White, S., Dickinson, W. P., Korsen, N., Dietrich A. (2008). Care management for depression in primary care practice: findings from the RESPECT-depression trial. *Annals of Family Medicine*, 6(1), 30–7.
- Pfeiffer, E. (1975). A short portable mental status questionnaire for the assessment of organic brain deficit in elderly patients. *Journal of the American Geriatrics Society*, *23*(10), 433–41.
- Schauffler, H. H., & Rodriguez, T. (1993). Managed care for preventative services: A review of policy options. *Medical Care Research & Review*, *50*(2), 153–98.
- Unutzer, J., Katon, W., Callahan, C. M., Williams, J. W. J., Hunkeler, E., Harpole, L., . . . Langston, C. (2002). Collaborative care management of late-life depression in the primary care setting: A randomized controlled trial. *Journal of the American Medical Association*, 288(22), 2836–45.
- Unutzer, J., Katon, W., Williams, J. W. J., Callahan, C. M., Harpole, L., Hunkeler, E. M., . . . Langston, C. E. (2001). Improving primary care for depression in late life: The design of a multicenter randomized trial. *Medical Care*, 39(8), 785–99.

- Unutzer, J., Katon, W. J., Fan, M. Y., Schoenbaum, M. C., Lin, E. H., Della Penna, R. D., & Powers, D. (2008). Long-term cost effects of collaborative care for late-life depressions. *American Journal of Managed Care*, 14(2), 95–100.
- Wilkinson, P., & Mynors-Wallis, L. (1994). Problem-solving therapy in the treatment of unexplained physical symptoms in primary care: A preliminary study. *Journal of Psychosomatic Research*, 38(6), 591–8.
- Willis, S. L., Tennstedt, S. L., Marsiske, M., Ball, K., Elias, J., Mann Koepke, K., . . . Wright, E. (2006). Long-term effects of cognitive training on everyday functional outcomes in older adults. *Journal of the American Medical Association*, 296(23), 2805–2814.
- Wilson, I. B., Schoen, C., Neuman, P., Kitchman Strollo, M., Rogers, W. H., Chang, H., & Gleb Safran, D. (2007). Physician–patient communication about prescription medication nonadherence: A 50-state study of America's seniors. Society of General Internal Medicine, 22, 6–12.