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Living With Arthritis: Using Self-Management of Valued Activities to Promote Health

Megan C. Janke,1 Jesse J. Jones,2 Laura L. Payne,2 and Julie S. Son3

Abstract
In this article, we explore how adults with arthritis use self-care strategies in their valued leisure activities, and variations in use based on their access to environmental resources. We conducted six focus groups (N = 34) with adults aged 55 and older with a diagnosis of arthritis. Adults living in residential communities were recruited, with 31% of the sample residing in subsidized housing. Focus group transcripts were analyzed using content analysis based on themes of selective optimization with compensation. We found some differences in strategy use between the resource-rich and resource-poor participants. Adults highlighted the value of their leisure activities and the importance of leisure in maintaining their health and well-being. Our findings point to the need to incorporate leisure education into interventions and programs targeting adults with arthritis.

Keywords
arthritis; content analysis; environment; focus groups; health and well-being; self-care

Approximately 46.4 million adults have doctor-diagnosed arthritis (Hootman, Bolen, Helmick, & Langmaid, 2006), and it is the leading cause of disability in American adults (McNeil & Benette, 2001). Arthritis is a chronic condition that causes changes in individuals’ physical functioning brought on by pain, stiffness, limited range of motion, and fatigue. These restrictions can interfere with adults’ ability to perform everyday activities such as bathing, dressing, cooking, and leisure; thus, they need to find ways to manage or cope with the pain and symptoms to maintain their involvement in valued everyday activities. In addition, arthritis also affects adults’ mental health and well-being. Although approximately 12% to 17% of the general population exhibits symptoms of major depression, 17% to 27% of adults with arthritis report major depression (Rhee et al., 2000). Arthritis does not have to control individuals’ lives, despite these restrictions and changes in health status. Many self-management strategies can be employed to help people improve their health and maintain involvement in activities (Lorig, Sobel, Ritter, Laurent, & Hobbs, 2001).

In this article we explore the role that valued activities, such as leisure, have in maintaining and promoting adults’ health and well-being. Leisure is defined as activities that are freely chosen, meaningful, and enjoyable. Leisure is often overlooked in the literature, but has been associated with multiple health benefits in a variety of populations (Caldwell, 2005), and it is one important self-management tool available to adults. Although individuals have identified leisure activities as a life domain frequently affected by the onset of arthritis, little research has explored how adults find ways to maintain involvement in these activities, and why adults perceive them as being important to their health and well-being. Thus, we sought to better understand the processes that individuals with arthritis use to promote their health through the self-management of their leisure activities.

Literature Review
The widespread occurrence of chronic conditions has led to changes in the management of these diseases at the individual level. Physicians are responsible for identifying treatment plans and determining how a patient’s health is

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managed in the traditional model of health care. In this traditional model, a good patient is “patient”—he or she takes a passive role in the management of his or her condition (Mulcahy, Parry, & Glover, 2010); however, even under this model the patient has the power to resist treatment, implying active self-management of the condition. The prevalence of chronic disease in our society has led to endorsement of a model focused on chronic care (Kane & Kane, 2001) wherein the active involvement of individuals in decision making is recognized and self-care is valued. Although individuals from low-income and underserved populations often bear the biggest burden of chronic disease, less research has focused on the self-management processes and behaviors utilized by these individuals (Eakin et al., 2007). We aim to address this gap in the research by exploring whether adults’ access to resources influences their self-regulation of valued leisure activities when faced with arthritis and possible implications for health.

The voluntary nature of leisure lends it to be one of the first domains of activity that adults with arthritis give up, yet research suggests that doing so might lead to further declines in health and well-being. Adults with arthritis cease engagement in up to two thirds of leisure activities after diagnosis (Wikström, Isacsson, & Jacobsson, 2001), and commonly report difficulties engaging in their other leisure activities (Blalock, DeVellis, Holt, & Hahn, 1993; Zimmer, Hickey, & Searle, 1997). Research indicates that maintaining involvement in leisure has important implications for these adults’ physical and mental health. Greater physical impairment is associated with greater reports of disability in leisure activities, which in turn is related to less satisfaction with abilities (Neugebauer, Katz, & Pasch, 2003). Continuing participation in social and recreational activities is related to fewer declines in well-being (Zimmer et al.) and fewer depressive symptoms (Katz, 1995; Katz & Yellin, 2001). In fact, individuals who noted losing 10% or more of their valued leisure activities because of arthritis were five times more likely to develop depressive symptoms (Katz). Zimmer and colleagues found that adults reporting arthritis-related functional limitations that led them to cease activities were better able to cope with their disease if they replaced them with other activities.

The type of activities adults engage in is also associated with health outcomes. Exercise or leisure-time physical activity (LTPA) is often encouraged for adults with arthritis. These activities are related to improved overall functional status and measures of gait, but are not necessarily associated with reports of decreased pain (Feinglass et al., 2005; Layne et al., 2009). Adults involved in a variety of different types of leisure activities (i.e., cognitive, social, physical, sedentary) reported better health than their counterparts who engaged in predominantly cognitive or physical leisure activities (Payne, Mowen, & Montoro-Rodriguez, 2006). Thus, arthritis-related declines in leisure might be an important factor in the link between physical impairment and depressive symptoms among this population.

The enjoyable and meaningful nature of leisure activities is one reason they have such a capacity to influence the health of individuals (Henderson & Ainsworth, 2002). Despite our knowledge about the health benefits of leisure activities, little attention is generally given to this life domain in the medical field beyond stressing the importance of exercise. Adults who wish to maintain involvement in their valued activities are often required to find ways to adapt and self-regulate their participation with minimal guidance from health care professionals. One theoretical framework that can be used to better understand the utilization of self-management processes is selective optimization with compensation (SOC; Baltes & Baltes, 1990).

According to the metatheory of selective optimization with compensation, successful self-regulation and adaptation of activities can positively influence one’s health and well-being. Selection is defined as adults’ identification and prioritization of their goals and activities because of lost capacity. It can occur in response to individuals’ loss of personal and/or environmental resources in an attempt to maintain function (loss-based selection), or adults can use certain activities in an attempt to improve function (elective-based selection). The second component of SOC is optimization, and it describes how adults maximize their participation in activities through internal and external regulation (e.g., personal beliefs, practicing their skills, sense of effort, use of time). Finally, compensation refers to how adults adapt and modify activities when faced with limitations either from within themselves or the environment to counteract experiences of loss and decline (e.g., activity modification, use of walking aids).

Actual testing of the SOC model in the domain of leisure has been relatively limited, although findings suggest that the individuals’ environment is an important factor. Baltes and Lang (1997) noted that “resource-poor” individuals reported fewer physical leisure, cognitive leisure, and social leisure activities and more television watching when compared to resource-rich individuals. Research related specifically to leisure and arthritis also suggests that SOC is appropriate for understanding self-management behaviors. Gignac, Cott, and Badley (2002) found that nearly all of the participants adapted at least one daily activity, including leisure, to manage their arthritis. Stevens-Ratchford and Lookingbill (2004) reported that physically and mentally engaging leisure activities helped adults with arthritis forget their pain and discomfort, making them feel better about themselves and their functional abilities. More recently, researchers indicated that adults with arthritis use SOC strategies to adapt and self-regulate...
their leisure activities, and that utilization of these strategies is typically associated with more positive health outcomes (Janke, Son, & Payne, 2009).

Our goal in this study was to describe the processes that individuals with arthritis undertake in their leisure activities to better manage their arthritis. Existing research offers support for the association between one’s leisure engagement and one’s health (Caldwell, 2005), but very little is known regarding the processes older adults with arthritis use to maintain involvement in valued leisure activities. These processes are important in understanding the variety of ways older adults select, self-regulate, and modify activities in the leisure domain to maintain their health and well-being. Therefore, our purpose was to examine how older adults develop and use strategies of selective optimization with compensation for self-management of their arthritis in the context of leisure activity. We also hoped to gain insight into how environmental resources influence self-management in these individuals.

Methods

Methodological Approach

We chose focus groups as the means of data collection for several reasons. First, ideas and opinions can be developed through the interactions of the participants, encouraging individuals who might think that they have little to add to the conversation to participate. Focus groups allow members to consider the subject in more depth than they might have previously (Kitzinger, 1995). This interaction also tends to enhance the quality of the data by weeding out false or extreme views (Patton, 2002). A second rationale for using focus groups was that the data provided from these discussions could enhance our understanding of a particular phenomenon (Sofaer, 1999). Focus groups also allowed us to identify major theory-driven themes related to leisure and arthritis using the framework of selective optimization with compensation.

The university’s institutional review board approved all procedures for this research project. From a larger survey-based project (see Janke et al., 2009 for more details), we purposively sampled 23 “resource-rich” individuals (i.e., residing in senior housing or independent living sections of continuing care retirement communities targeting middle- and upper-income residents of the region) and 11 “resource-poor” individuals (i.e., residing in lower income, subsidized housing apartments for older adults) in the region. We conducted three focus groups at resource-rich locations and two focus groups at resource-poor locations. After completing the survey on health and leisure, adults were asked if they would be willing to take part in a focus group session to discuss the topic in more depth. The eligibility criteria for participation required that adults self-report a diagnosis of arthritis, report at least some difficulties because of arthritis, were 55 years of age or older, and had no cognitive impairment as determined by the site director at each of the data collection locations.

The focus group sessions lasted approximately 1 hour at each location. We used Krueger and Casey’s (2009) guide for conducting focus groups. We first introduced the topic to be addressed and had the participants briefly discuss their arthritis and symptoms. Next, the participants discussed the topic of arthritis and its meaning to them in a leisure context. Finally, the focus group facilitator summarized the main points and opinions raised during the session. Four main themes relating to the adults’ arthritis and leisure activities were put forward, addressing (a) how arthritis affected adults’ participation in leisure activities; (b) what factors influenced adults’ decisions to continue, add, or cease leisure activities; (c) what efforts adults made to continue participation in leisure activities; and (d) how resources were used to help adults maintain participation in leisure activities despite arthritis symptoms.

Participants were required to complete an informed consent form and agree to be audiotaped before the session began. The participants were introduced to the research project and encouraged to discuss the issues that were salient and that they identified with personally. The questions in the focus group protocol were used to guide the conversation in the focus groups; however, each group was allowed to expand on topics and ideas that were not included in the moderator’s guide (Krueger & Casey, 2009). We used member checks to enhance credibility. At the end of the discussion, the session moderator provided a summary of the findings after all of the topics had been covered, and the participants were asked to add any additional information they believed to be important and to comment on the accuracy of the reflection. The focus group transcripts were sent to the participants after transcription to provide them with the opportunity to clarify or change any of the thoughts they expressed in the focus group session to ensure accuracy (Creswell, 2007). The focus groups ranged in size from 4 to 8 participants, meeting the recommended size requirements suggested by Kitzinger (1995). Each person who attended the focus group was given a $5 gift card to thank them for their involvement. Focus groups were conducted until data saturation was met (Creswell) for all of the main themes.

Data Analysis

We used content analysis to identify core meanings or themes in the transcribed text. Content analysis is an appropriate technique to use when researchers aim to make sense of qualitative data and identify core consistencies and
mechanisms (Patton, 2002). The focus group sessions were transcribed verbatim for analysis. Once the transcripts had been updated with any participant modifications, the coding procedures were as follows: (a) three members of the research team identified Baltes, Baltes, Freund, and Lang’s (1995) broad theoretical themes of loss-based selection, elective-based selection, optimization, and compensation in the text; (b) a codebook was created based on typical instances of each of the theoretical SOC domains as noted by Freund and Baltes (2002) and the themes from the first round of coding; and (c) the transcripts were then independently analyzed a second time by two members of the research team using the codebook, this time explicitly focusing on themes related to the adults’ leisure activities and arthritis. Similar to the methods used by Ljunggren, Huang, Wang, and Johansson (2010), we analyzed the focus group transcripts for similarities and differences between the two groups: the resource-rich and the resource-poor focus group participants.

After the second round of coding, the themes identified by the two coders were examined for reproducibility (i.e., interrater reliability). Because the components of the SOC framework work dynamically as a unit (Marsiske, Lang, Baltes, & Baltes, 1995), statements in the text could potentially fit more than one dimension of selection, optimization, and compensation. In this case, we identified which dimension most closely applied to the strategy used based on the context of the statement during the focus group interview. Given the complexity of the data, the coders discussed statements that appeared to fit more than one thematic code and carefully evaluated the context in which the strategy was noted to determine which dimension was represented. In the few cases (6 of 286) when the coders did not agree on the most suitable code for a statement, a third member of the research team was called on to assist in the coding of the data as a tie breaker.

Profile of the Participants

Data were collected from 34 middle-aged and older adults through six focus group sessions in the Midwestern United States. The adults ranged in age from 57 to 94 years, with an average age of 76. The majority of the participants were White (83%) and women (88%). Half of the adults were widows, 25% were married, 16% reported being divorced, and 9% had never married. Almost a third of the sample (31.3%) was classified as resource-poor and lived in low-income, subsidized housing. Most of the participants had osteoarthritis (71%), and approximately 13% had been diagnosed with both osteoarthritis and rheumatoid arthritis. More than 75% of the sample had been diagnosed with arthritis for 5 or more years. There was diversity in the adults’ reports of the severity of their arthritis and its impact on their daily lives. Approximately 39% of the participants reported that arthritis had “quite a bit” of an effect on their daily lives, with 32% noting that it had “some” effect; however, 16% noted that arthritis only affected their lives “a little,” and 13% reported “a great deal” of interference in their daily lives because of arthritis. Overall, 77% of the participants reported that they were somewhat or very satisfied with their current health.

Results

The different themes identified in the data are explained below. Quotes illustrating how adults used strategies related to loss-based selection, elective-based selection, optimization, and compensation to adapt to their arthritis and maintain functioning are provided to demonstrate how the findings relate to theory. Table 1 shows how these themes fall within the different SOC strategies used by the adults and whether differences associated with the adults’ resources were related to their use of these self-management strategies. The primary themes were (a) focusing on essential activities, (b) restructuring participation in leisure, (c) health-promoting aspects of leisure, (d) commitment to leisure for health purposes, (e) influence of role models, (f) seizing opportunities, (g) personal beliefs as motivators, (h) modification of leisure activities, (i) use of external aids and resources, and (j) social support. In terms of how these themes relate to SOC, themes (a) and (b) reflect loss-based selection; themes (c) and (d) represent elective-based selection; themes (e), (f), and (g) are indicative of optimization; and themes (h), (i), and (j) reflect compensation.

Focusing on Essential Activities

A few participants stressed that finding ways to stay involved in the most meaningful activities is essential to one’s health. The most common activity mentioned by the participants was spending time with family, particularly grandchildren. Spending time in this activity allowed these adults to “get away” from their arthritis: “When I am with my family . . . you are busy and . . . you don’t think about [arthritis].” One individual commented, “I took care of my great-grandson . . . he loved to run up and down the halls. . . . Then you’d forget [about the arthritis] and I would have to get up and go and get him.” Although many individuals suggested that playing with their grandchildren was difficult because of their arthritis, their conversations indicated this was an important source of meaning and happiness to them.

Other adults mentioned that they centered their attention on a specific activity, or had given up a specific activity, because of its level of importance in their lives. For example, one woman stated, “Bingo. I gave that up. No, I
Table I. Themes of Self-Management in the SOC Domains and Use by Adults by Resources

<table>
<thead>
<tr>
<th>Theme</th>
<th>SOC Domain</th>
<th>Difference by Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focusing on essential activities</td>
<td>Loss-based selection</td>
<td>No apparent differences</td>
</tr>
<tr>
<td>Restructuring participation in leisure</td>
<td>Loss-based selection</td>
<td>No apparent differences</td>
</tr>
<tr>
<td>Health-promoting aspects of leisure</td>
<td>Elective-based selection</td>
<td>Differences in types of activities: resource-rich individuals more involved in organized activities, resource-poor individuals more likely to identify a variety of leisure activities as promoting health</td>
</tr>
<tr>
<td>Commitment to leisure for health purposes</td>
<td>Elective-based selection</td>
<td>Differences in commitment: more common among resource-rich individuals</td>
</tr>
<tr>
<td>Influence of role models</td>
<td>Optimization</td>
<td>Differences in role models: only resource-rich individuals identified using others who are not active as motivators for exercise</td>
</tr>
<tr>
<td>Seizing opportunities</td>
<td>Optimization</td>
<td>No apparent differences</td>
</tr>
<tr>
<td>Personal beliefs as motivators</td>
<td>Optimization</td>
<td>No apparent differences</td>
</tr>
<tr>
<td>Modification of leisure activities</td>
<td>Compensation</td>
<td>A difference noted in types of activities modified: resource-rich participants commented on changing modes of traveling</td>
</tr>
<tr>
<td>Use of external aids and resources</td>
<td>Compensation</td>
<td>Differences in use of external resources: predominantly among resource-rich individuals</td>
</tr>
<tr>
<td>Role of social support</td>
<td>Compensation</td>
<td>No apparent differences in use of external aids</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differences in purpose of social support: resource-rich persons for motivation and energy, resource-poor persons for safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social support from medical professionals and community resources noted mainly by resource-poor participants</td>
</tr>
</tbody>
</table>

am taking a sabbatical on that . . . I am just not interested in it . . . not right now.” Another aspect of this theme was focusing on the participants’ most enjoyable leisure activities, as evidenced by this next statement: “I should be walking instead of doing handwork, but I have more fun doing handwork.” No differences in adults’ use of this strategy were evident based on their classification of being resource-rich or resource-poor.

Restructuring Participation in Leisure

Another theme that emerged was that individuals adjusted how they participated in valued leisure activities because of their arthritis symptoms. Adults used this strategy regardless of their resource levels. Often, reports of this strategy related to giving up an activity and replacing it with something else: “Horseback riding and dancing, those were my two favorite things in the world. And I can’t do either of them anymore. [Now] my leisure activity is reading.” A few individuals did note that they were able to find other ways to satisfy their needs in the activity:

[We can] find ways to be socially engaged or travel through TV programs instead of doing it on our own . . . it is a good way to do things that you would like to do without having to travel, and the money, and the costs.

One woman noted, “I spend a lot more time on the computer now, since I really can’t get out and do other things that I want to do” when she realized she could no longer be as active as she liked.

Another means of restructuring participation in leisure that was mentioned included adapting new standards for participating in existing activities when arthritis interfered. These strategies included consciously limiting the amount of time adults spent on an activity so as not to aggravate their symptoms, making sure they took breaks or time to rest during the activity, and choosing alternative activities that led to similar benefits and outcomes. This theme was evident in the case of one woman who resided in a small, rural community:

I walked the perimeter of the town . . . five miles. You saw all your neighbors and you saw everybody else. And I can’t do that now. So I have to sit on my front porch and hope they go by me so I can holler at them. Because it makes a difference.

Another woman discussed how arthritis affected her music: “I play . . . a string instrument and I have to cut back . . . my arthritis will start acting up if I practice more than an hour or play more than an hour . . . without stopping.” One individual noted that arthritis changed how she interacted with her grandchildren in leisure activities:

[Arthritis] keeps you from doing a lot of it . . . I have got several grandkids locally . . . and when the older ones were young, I could do, you know,
everything with them—play ball and just run around, what have you. And now I can no longer do that; the legs won’t let me. So we spend a lot of time reading and playing with toys that grandma doesn’t have to chase after, and that sort of thing.

As mentioned in the first theme, spending time with family and grandchildren was valued by several of the adults, and arthritis appeared to influence this aspect of their leisure.

**Health-Promoting Aspects of Leisure**

This was a common theme expressed by the majority of participants, regardless of their environmental resources. The most common type of leisure activity used by these adults to achieve better health was leisure-time physical activity (i.e., exercise). For example, one woman explained, “I like . . . to walk [to help me forget my arthritis] . . . Because I need to do something . . . when you sit around you aren’t doing [anything] but gaining weight and thinking about it.” Another participant stated,

> It is important to stay active because it is not going to be getting any better . . . the pain is not going to go away . . . so you might as well keep on doing it. But maybe it is also important to keep doing it because it makes you forget about the pain, too. So, if you sit still the pain is still going to be there. And if you think about it . . . maybe if you keep active, the pain is still going to be there but maybe you aren’t going to notice quite as much.

Although adults commonly recognized the importance of leisure for promoting their health, differences were noted in the types of valued activities in which they participated.

The type of exercise these adults participated in varied greatly by their residence, with those in more resource-rich environments having access to organized group exercise programs and many attending Tai Chi and ballroom dancing several times a week. One resource-rich participant strongly believed that exercise alleviated her arthritis symptoms. She stated,

> I have full range of motion because I have done this exercise class for ten years and walking for twenty-five and the Tai Chi for six or eight years. . . . I know if it were not for [this], you would see a different person . . . I would have deteriorated very badly.

Older adults residing in subsidized housing did not have on-site access to organized activities, and although they were available in the community, these individuals tended to report more involvement in physical activities such as walking or exercise tapes that could be done individually. Many of the adults tried to incorporate exercise into their other leisure activities by taking the stairs or walking down extra aisles of the stores when they shopped.

The adults also appeared to differ by residential location in the types of leisure activities they noted as having health benefits. Particularly among the resource-poorer individuals, there was a sense of engaging in leisure activities because of the way it made them feel and helped them to forget their arthritis. One resource-poor woman exemplified this in her response: “I just get out and go. It helps me . . . I don’t have to be with someone. It just feels better mentally, which makes you feel better physically.” Social events and time spent with family members appeared to have these benefits for some individuals.

**Commitment to Leisure for Health Purposes**

The statements supporting this theme emphasize the importance of committing to regular engagement in the activity and discipline to continue the activity, even if it was not always pleasant; however, only adults classified as resource-rich explicitly stated that they made commitments to their current activities for health purposes. One woman indicated, “I do more walking than I ever did. I always thought walking was a waste of time, but I found out that it is therapeutic.” Others made comments regarding their dedication to exercise, in particular noting that “it is kind of hard to do sometimes, but it is worth the effort,” and that “it hurts every time you do the exercises, [but] you almost have to do it, otherwise it just gets worse. Your body doesn’t want to do anything.” Some of the adults’ attitudes about an activity changed because of the health outcomes they noticed after their participation, making them more committed to the activity.

Adults also mentioned creating goals in their leisure activities to ensure they achieved the greatest benefit. Although this theme was not as commonly expressed among the participants, several individuals indicated they set goals for themselves in their leisure activities because of the benefits they received from their involvement. One woman living in subsidized housing planned on signing up for a rehabilitation class at the local hospital to exercise and alleviate some of her arthritis symptoms: “I am going to take that rehab [rehabilitation] class. . . . I am going to do something.” Another resource-rich participant identified the importance of setting goals to maximize the benefits she received from her valued activities: “I try not to modify because I try to push myself.” However, goal setting was not widely reported by all of the participants.
Adults who were in resource-rich areas were more likely than those in resource-poor areas to make goals involving alternative methods such as Tai Chi or Chi-Gong to achieve benefits. For example, one woman commented,

“If I can’t sleep because of the arthritis pain there is no use lying in bed. You just feel it more and more . . . but if you sit up and do Chi-Gong, especially if your muscles are cramping . . . your muscles will relax and you will get this relaxation which will help the general all-over pain, and [which will] also make you so tired that you . . . go to sleep . . . I often use Chi-Gong in the middle of the night.”

Many participants were eager to learn more from those who had participated after hearing the benefits of Tai Chi, Chi-Gong, or other alternative methods. In addition, a few individuals expressed an interest in attending future programs offered either at their institution or within the community at local parks and recreation facilities to promote their health and well-being.

**Influence of Role Models**

Within the domain of optimization, the adults identified the influence of role models in relation to their involvement in leisure activities. One woman living in subsidized housing stated, “You have got to move, just like my pastor. I do . . . I get up and sometimes I try to power walk. I say, ‘Okay, I am going to do this today.’” Many participants mentioned individuals who had used leisure successfully to improve their health, and noted a desire to emulate these individuals. Participants appeared to use others who were not active as a motivator to get more involved in leisure activities, particularly exercise. This finding was most evident among the resource-rich participants who were engaged in organized exercise programs. For example, one woman stated, “You think about somebody who gave up and didn’t do any of those [exercise classes]. Those are the ones that are sitting in the wheelchairs.” Other resource-rich individuals indicated that it was not just the behavior of others that motivated them to stay active, but also the attitudes of some of the people they interacted with on a daily basis: “I think a little of it [decision to attend exercise class] is because of the personality of the person who leads it . . . [she] has such as vibrant, enthusiastic personality that she makes you want to come.” The participants in one resource-rich focus group, in particular, appeared to be influenced by each other and were a source of inspiration and guidance. One woman who had stopped participating in organized exercise classes was reconsidering this choice after listening to her peers discuss the benefits they had experienced.

**Seizing Opportunities**

This theme focused on specifically putting forth effort to engage in valued leisure activities and adults’ ability to take advantage of moments when their symptoms were not as severe. Regardless of their resource level, adults reported using this strategy as a means of maintaining their involvement in leisure. One woman indicated that she made an effort to socialize and interact with others: “I just get out of my room and there is always somebody you can find to talk to. If you get tired of that you can just do something else . . . go back to your room.” Another woman responded, “I think of excuses to walk somewhere. Down to the mail maybe a couple of times a day, things like that.” Thus, adults’ involvement in some physical activities could potentially increase their social interactions.

Adults with arthritis also utilized this strategy by planning their involvement in leisure activities around their arthritis pain and symptoms. Participants with both resource levels noted using this self-management strategy. For some, this meant engaging in activities during a certain time of day, when their arthritis pain and symptoms were less. Many participants indicated this occurred during the morning, after they had showered and had a chance to loosen up their muscles and joints: “Well usually if I don’t get it done in the morning, I might as well give it up in the afternoon, because my mornings are my best time.” Because this group of individuals lived in the Midwest, the weather was another common factor considered: “With winter coming on, the time of walking depends on the weather.” Other individuals with more severe arthritis were not necessarily sure when they would be feeling their best, so they would have to make decisions about their activities on a day-to-day basis. A woman living in subsidized housing best expressed the use of this strategy:

> Well, all my friends will call and ask me to do something, and I say, “Do you mind if I let you know the morning of? Because, I just don’t know.” And they are all very nice and say if you can we will pick you up but if you can’t we understand. So part of the time I am able to, but most of the time I am not.

Another person stated, “My arthritis comes and goes, and I have had to stop walking at times in the past for short periods of time, maybe three weeks at most.” These examples highlight that some participants would engage in a favorite leisure activity for as long as their symptoms would allow, rest, and then pick the activity back up when they could.
Personal Beliefs as Motivators

This self-management strategy was common among both resource-rich and resource-poor individuals who participated. One woman stated,

Part of arthritis is your attitude. Are you going to [be] happy with it, or are you going to be “Oh poor me” with it? Because if you are “poor me” with it you are not going to last very long or go very far.

Their personal values played an important role in their engagement in valued leisure activities, specifically the belief that they needed to stay active and continue moving to keep their arthritis from getting worse.

Incorporated into these beliefs was the importance of persistence and determination. This was particularly evident in how older adults tolerated the pain associated with their arthritis to maintain involvement in leisure activities: “I know I am going to hurt, but I keep on trying.” Another participant indicated that it was easier for her to cope with arthritis “if you can develop the mind over matter, or somehow have diversion when you are exercising.

. . . A group is helpful, walking in [a] beautiful park.” Several of the adults also mentioned that stopping valued activities because of their arthritis was not an acceptable option, and that “stubbornness” helped keep them engaged in leisure activities they did not want to give up. One participant stated, “You learn to tolerate it [arthritis] . . . you either do that or you cry.” Another highlighted the necessity of putting forth effort to stay active, regardless of the nature of the activity: “Everything that I do is a push to do.” Overall, the participants felt that engaging in leisure activities improved their health and well-being, and they used these beliefs to help them negotiate the difficulties their arthritis pain and symptoms posed to their leisure involvement.

Modification of Leisure Activities

One common compensatory strategy that emerged from these data was the adaptation or modification of leisure activities, allowing adults to continue participation in valued activities. Many individuals did this by replacing meaningful activities with similar activities when their arthritis interfered with their participation, changing the duration or intensity of their involvement, and modifying how they accomplished a leisure activity. The participants’ resources did not appear to significantly influence their use of this strategy; however, there were some differences in the types of leisure activities they mentioned adapting. One participant stated, “You go to do something and realize, oh that hurts . . . I can’t do it. . . . Then you find some other way of doing it.” For one woman this meant changing how she played bridge. She noted that holding the cards had become difficult and she could no longer play in a group: “I can’t play bridge anymore [with others], so I play bridge on the computer.” Although this strategy allowed her to continue this valued activity, she noted that it was not exactly the same, as it did not provide social interaction. Another participant commented that she often went swimming with her spouse for exercise, but recently had to modify her participation in this activity because of arthritis pain in her shoulders:

I had been swimming the crawl, the plain old swimming stroke, and [the physical therapist] told me to switch to the breast stroke, which I hated but learned to like. . . . That is not nearly as hard on your shoulders he said. It sure . . . helped me.

Other adults reported that they had reduced the distance that they walked or spent shorter amounts of time in an activity, such as sewing.

A common response in the resource-rich focus groups was that the adults had changed the way that they traveled because of their arthritis. Many individuals indicated that flying was much more difficult for them now and that they preferred to travel by car when taking trips. This allowed for the incorporation of even more leisure time into their vacations, as indicated by one participant:

We drove to California this summer. We used to do it in three and a half days, and we did it in seven days this time. Partly because we stopped at almost every rest stop . . . it was a combination of needing to stop for toileting but also exercise. And most rest stops have very nice . . . areas to walk, and they pick out some kind of hilly place where you can have a view and winding paths. . . . It was lovely.

Although many of the adults noted modifying and adapting the leisure activity specifically, still others mentioned that they had begun to rely more on external aids and resources to assist them in their valued leisure activities.

Use of External Aids and Resources

A few participants noted that they had looked for resources to help them find ways to maintain their leisure despite arthritis, although this was predominantly evident among the resource-rich individuals. One woman described how she became innovative when she could not use her hands and fingers to turn the key in the ignition of her car:

I cannot start my car with my right hand. . . . I found a way to do it. . . . I put a nail through your key, and just take that point, push down on it, and start it.
Another participant reported searching the Internet and magazines for useful tips on how to alleviate her arthritis symptoms: “The AARP magazines and all those things you get as you get older . . . those little publications. I read them; I look them up on the computer.” These sources provided her with information about Chi walking and belly breathing as techniques to help her manage her arthritis.

The use of external aids to maintain involvement in leisure activities varied for these adults, but was mentioned by all participants regardless of their resources. The most common aid used by the participants was the electric scooters available at shopping malls and stores:

When you go to the mall . . . you can rent one of those electric carts out there. . . . I mean there are times that I just want to go to the mall and look around. . . . And I do take advantage of those [carts] just about all of the time.

One woman identified her knee replacement as an aid, and talked about how it permitted her to engage in a valued activity she had not done for years: “[At] my granddaughter’s wedding, I was able to dance. I danced all over the place.” Another participant noted,

[The bus] picked me up and took me to [the mall] . . . and left me for an hour and a half. . . . That was so much fun to spend a whole hour and a half to look around. . . . I hadn’t shopped for so long.

The local transit system was often identified by adults as being helpful in getting them out into the community and allowing them to participate in leisure activities.

Role of Social Support

Many adults indicated that social support was an important compensatory strategy in keeping them active and helping them stay involved in leisure activities. For many, this support was derived from friends and family members, and appeared to be particularly relevant for leisure-time physical activities. Adults living in residential facilities without organized exercise programs commonly noted finding partners to exercise with for safety reasons:

I don’t go to the exercise room by myself. There is another woman that always goes when I do, so that we are in there together, because I am afraid I will fall on one of the machines. So we just set up a time and go.

The adults involved in Tai Chi and organized exercise classes also reported that social support was important but more for energy and motivation than for safety. As one woman put it,

Organized activities give you this social support, and this is invaluable if you are trying to not think about pain. . . . It is fun because you are with people and you know it is very important, really; it keeps you coming every time.

Although social support was generally described in relation to friends and family members, health care professionals were also identified as a source of social support. A few of the participants noted that a doctor or someone in the medical profession had provided them with encouragement to exercise and stay physically active. One of the resource-poor participants told of her experience with a nurse at the local hospital:

She was so kind. . . . She took me downstairs to rehab and she said that you can come down here . . . this is for community hours, and she gave me a time. She also said people walk through . . . every day, and nobody ever looks at this door. . . . She gave me some papers and told me to fill them out. She said . . . even if you do not have a dime or do . . . they give scholarships and you can come in here and work out. And there is somebody there who will tailor [an exercise program] to you.

This theme was only evident among individuals with fewer resources; none of the adults in resource-rich environments identified medical professionals as an important source of social support.

A few participants commented on the social support offered through community resources, such as the local mass transit and other nonprofit organizations. These community support opportunities appeared to be particularly influential for resource-poor individuals. One woman stated,

My [leisure] activities depend on me having a ride from two of the people that I have mentioned. . . . I feel very fortunate because the mass transit district has a van on Saturday that you can call . . . ask them to come and pick you up and take you within a specified area. It is limited, but can be very useful.

Others commented on the support offered through local community organizations like Faith-in-Action that would help individuals get to necessary appointments and other obligations through assistance with cab fare or volunteer transportation services.

Discussion

The findings outlined in this article offer important insights into how adults with arthritis self-manage their health
through their valued leisure activities by using SOC strategies. These strategies appeared to help these adults successfully cope with their arthritis pain and symptoms, through benefits to their physical health and function as well as their mental health. A few core consistencies or meanings related to the adults’ leisure activities were identified. All participants, regardless of their environmental resources, noted leisure-time physical activities as integral to maintaining their physical function and abilities. This is an important factor to consider, given that 44% of adults with arthritis do not participate in any leisure-time physical activity (Shih, Hootman, Kruger, & Helmick, 2002). Overall, adults were found to stress the importance of perseverance and determination, and believed strongly in the notion of “use it or lose it.”

Spending time with family and engaged in hobbies were the leisure activities identified by participants when they discussed focusing on their most important activities. The benefit of these types of activities was often in the diversion that they provided from arthritis by allowing the adults to forget about their symptoms for a moment, and this is consistent with the findings from Stevens-Ratchford and Lookingbill’s (2004) investigation on leisure and arthritis. This also supports research by Prieto-Flores, Fernandez-Mayoralas, Rosenberg, and Rojo-Perez (2010) that found family to be one of the most important factors in quality of life among older adults. Similar to our findings, they also noted that participants’ different circumstances, including their environmental contexts, were related to their health and quality of life.

Another core theme that emerged from these focus group discussions was the willingness of adults to find new standards of participating in valued activities when their arthritis pain and symptoms began to interfere with their involvement. Individuals residing in resource-rich environments appeared to be more likely to actively seek out resources and acquire new skills to assist them with this endeavor. However, people with fewer resources might have less opportunity to explore leisure across the lifespan (Wikström, Book, & Jacobsson, 2006), focusing more on their obligatory responsibilities than leisure. This could potentially mean they are less aware of alternative leisure activities or resources that they can draw on when they need assistance in modifying existing or identifying new leisure activities. It is also possible that resource-poor individuals are in need of more services and education to assist them in modifying and adapting valued activities to promote their health and well-being. Our findings support this, because we noted that the resource-poor participants appeared to use social support from medical professionals and other community-based resources more than the resource-rich.

In addition, although many adults did replace activities when faced with difficulties because of arthritis, many times they commented that these activities did not fill the void completely: they were not as “valued” as their previous activity. Community resources and programs, such as leisure education, could provide useful information about leisure opportunities and resources relating to possible means of modifying or adapting leisure activities to maintain involvement. Neugebauer et al. (2003) also stressed the importance of interventions and educational programs to help create value in the activities individuals can still participate in, or to identify new activities that might fill similar needs among adults with arthritis.

One notable difference between participants in resource-rich and resource-poor environments was their use of social support in their leisure-time physical activities. The adults in resource-rich environments most commonly reported exercising in groups, whether through organized programs or walking with a friend or spouse. Conversely, the individuals in subsidized housing tended to report engaging in exercise and physical activities individually. This was also evident in their statements related to social support. Individuals who participated in structured exercise programs stressed the value of the social support inherent in these group activities. Research suggests that social support is particularly important for older adults’ involvement in leisure-time physical activity (e.g., McAuley, Elavsky, Jerome, Konopack, & Marquez, 2005), and it has been noted that the importance of social support and encouragement from others should not be underestimated as important predictors of adherence to exercise among adults with arthritis (Marks & Allegrante, 2005).

Although most of the participants reported at least some involvement in physically active leisure, this is important to consider given that those in the resource-poor environment did not appear to have as much social support in relation to their health-promoting behaviors. In a recent article, women living in poverty with greater social support and a sense of inclusion were found to take more risks and try new things, particularly in the sphere of health promotion (Ponic & Frisby, 2010). Griffiths et al. (2010) also noted the importance of understanding how an individual’s chronic condition interacts with loss of function within the context of their physical and sociocultural environment to better understand adaptation and adjustment. These findings have implications for best practices on how to tailor health interventions for the individual based on their current pattern and characteristics. Thus, finding ways to provide on-site exercise classes in low-income settings might be important to providing the necessary social support for promoting healthy lifestyle factors such as exercise among adults with arthritis.

There were a few limitations that should be addressed. It is important to note that the sample was recruited through purposive sampling, and that there was a larger representation of resource-rich adults than resource-poor.
Two locations of our focus groups were subsidized housing apartments and classified as resource-poor, and three facilities were viewed as resource-rich. One of the reasons for this difference is that there were more facilities available to adults with higher levels of income, and this provided a greater pool of facilities from which to recruit the resource-rich participants compared to the resource-poor. We also had fewer residents in the resource-poor facilities volunteer to participate. Therefore, it is possible that apparent differences by resource type were due at least in part to the different levels of sample representation.

Focus groups were the primary source of data for this research; however, there are some limitations associated with this method. Focus groups have the potential to be dominated by certain individuals, suppressing the views and opinions of less vocal participants. Although we made an effort to draw out responses from all of the participants, the findings reflected here might not be representative of all of the individuals. The sample consisted predominantly of women, and this representation did not allow us to address whether there were differences in the adults’ self-management of leisure related to gender. Gender differences might be particularly relevant, because the few men in our focus groups did not tend to be our most active contributors to the discussion. Compared to the larger research project sample from which these focus group participants were drawn, this sample of adults was slightly more likely to be women (88% vs. 84%) and not married (75% vs. 69%). As with most qualitative research, the ability to generalize our findings to a broader audience of older adults is potentially limited because of the community and cultural influences of our particular sample.

In summary, we identified several strategies utilized by adults with arthritis to maintain their involvement in valued leisure activities. Increasing our understanding of SOC processes is useful because it could be possible to find ways to help individuals maintain these valued activities when faced with functional limitations. Given that change in the ability to perform valued activities such as leisure appears to be critical in the link between physical limitations and mental health for adults with arthritis (Katz & Yellin, 2001; Neugebauer et al., 2003), helping adults find ways to self-manage their health through leisure activities is crucial. Our findings provide a first step in identifying strategies used by adults with arthritis to maintain participation in valued leisure activities that they identify as effective contributors to their physical and mental health.

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