

Disabling Symptoms

What Do Older Women Report?

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OBJECTIVE: To answer the question, "What do older disabled women report as the main symptoms causing their disability?"

DESIGN: Cross-sectional study of 876 women aged 65 and older who participated in the second interview of the Women's Health and Aging Study, a longitudinal study of community-living women, representing the one third of older women with at least mild to moderate disability.

MEASUREMENTS AND MAIN RESULTS: Women were asked to identify the symptom and the condition that was the main cause of disability in basic and instrumental activities of daily living, and lower extremity mobility. Musculoskeletal pain symptoms were reported as the main cause of disability by at least one third of women with each type of disability. Other symptoms that were less frequently reported as main causes of disability were weakness, fatigue, and unsteadiness. Fear of falls was reported by 14% (95% confidence interval, 11.2% to 17.6%) of 472 women with disability in bathing. When asked to report on the main condition causing their disability, many women responded, "old age" or "no specific disease," but were able to identify symptoms causing their disabilities.

CONCLUSIONS: Musculoskeletal pain was the most common cause of disability reported by older women, followed by weakness and balance difficulties. Greater attention to symptoms that interfere with daily activities of older persons may reduce the burden of disability.

KEY WORDS: activities of daily living; aged; epidemiology; pain; balance.

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Older women are at high risk of developing disability in old age. It is estimated that 32% of women aged 70 or older in the United States have difficulty or inability in performing daily self-care activities.¹ Disability prevalence in our rapidly expanding older population is a major concern, not only because of the detriments to quality of life, but also because of higher health care utilization and costs incurred by disabled persons compared to their nondisabled peers.²⁻⁴

Researchers have identified specific conditions, such as arthritis, diabetes, stroke, and hypertension, that

predispose older adults to functional decline.⁵ However, disease diagnoses alone are insufficient for explaining the heterogeneity of disability in older adults. We know that 2 persons may have the same disease and one may be homebound requiring daily assistance, while the other runs shopping errands for her disabled peers. Severity of disease is likely central to explaining some of these differences, but many persons have multiple chronic conditions that may interact, leading to wide variability in the types of disability.⁶ Social, constitutional, and behavioral issues also contribute to disablement.⁵ Rarely has the role of symptoms been addressed in studies of disability.

Symptoms are the primary reason for half of outpatient visits by older adults.⁷ Of the many symptoms that older persons experience in their daily lives, those that interfere most with daily functioning or are very bothersome are most likely to be reported to health care providers.⁸

Many symptoms are treatable. Identification of the most burdensome symptoms could lead to targeted efforts to better manage these symptoms, in addition to their underlying causes, for the purpose of improving physical functioning. The Women's Health and Aging Study (WHAS), a population-based study of older disabled women, has provided a unique resource for examining the experience of disability in the daily lives of community-living women. In this study, we will identify the symptoms that women report as the main causes of their disabilities.

METHODS

WHAS is a longitudinal study of the causes and course of disability in older women. Details of the study design and methods have been published previously^{9,10} and are available on the website of the National Institute on Aging (<http://www.nia.nih.gov/health/pubs/whasbook/title.htm>). Briefly, participants, aged 65 or older, were selected using an age-stratified probability sample from the Medicare enrollment files representative of the 12 contiguous ZIP codes in the Eastern region of Baltimore and its surrounding suburbs. The response rate for the screening interview was 78% of the Medicare sample who were living at home in the community. Younger women, aged 65 to 74, were somewhat more likely to attend the screening than those aged 75 and older, (81% and 76%, respectively), but older women were more likely to meet the study's disability criteria.⁹ Women who participated in the study were very similar to the total eligible screenee population according to sociodemographic and health characteristics.¹⁰

Study eligibility was based on report of any difficulty in performing 2 or more domains of functioning: upper extremity function (lifting/ carrying 10 pounds, raising

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arms above head, using fingers to grasp or handle); lower extremity function (walking 1/4 mile, climbing up 10 steps, transferring from bed or chair, doing heavy housework); activities of daily living (ADL: bathing, dressing, eating, using the toilet); and instrumental activities of daily living (IADL: using the telephone, doing light housework, shopping, preparing meals, managing money). Women with moderate to severe cognitive impairment, measured by the Mini-Mental State Examination (score <18) were excluded from participation.¹¹ There were 4,137 women screened during in-home screening interviews and 1,409 met eligibility criteria. Of these, 1,002 women agreed to participate and completed the in-home baseline interview and clinical examination. The WHAS population was similar to national populations in terms of disability estimates and in estimates of physician contact.^{9,10} At baseline, 89% of participants reported at least 1 physician visit in the 6 months prior to study enrollment.¹⁰

The study participants were followed for 3 years, from 1992 to 1998, through semiannual in-home visits by trained research staff. The comprehensive visits included a health and functional status interview, physical performance testing, and physical assessments by a registered nurse. The second interview, conducted 6 months following baseline, is the data source for this report. In all, 876 women completed the interview and were included in the present analyses. During the first 6 months, 30 women died and 28 dropped out of the study. An additional 68 women were not included in these analyses because they had proxy respondents ($N = 28$) or were missing relevant information from the interview ($N = 40$).

The focus of this research is women's report of symptoms that cause their disability. During the baseline interview, participants were asked about the main condition that caused their disability, for each activity in which they reported difficulty or inability to perform. They were shown a list of 39 conditions as a reference (Appendix A). Several participants could not identify a specific condition as the main cause of their disability. Thus, in the second interview, 6 months after baseline, a question was added about the main symptom, in addition to the condition, that was the main cause of their disability for each activity with reported difficulty or inability. Participants were shown a list of 34 symptoms as a reference in answering the symptoms questions, and for each specific disability, only 1 main symptom could be selected (Appendix B). Self-reported symptoms by older persons have been found to be consistent with self-reported diseases, indicating the validity of the symptom questions.¹²

For this study, we examined participants' responses about disabling symptoms for tasks within 3 categories of function: ADL (bathing, dressing, eating, transferring, and using the toilet); lower extremity mobility (walking across a room, walking 1/4 mile, and climbing 10 steps); and mobility-dependent IADL (light and heavy housework, meal preparation, and shopping for personal items). Participants rated their disability in each task according to 4 levels:

little, some, or a lot of difficulty, or inability. There were no potential conflicts of interest among the authors in the conduct of this research.

Statistical Analysis

The analyses were conducted using descriptive methods, primarily percentages and frequencies. The percentage of women reporting each symptom was obtained according to each functional task. Standard errors and 95% confidence intervals (95% CIs) were calculated for the proportions of women reporting each symptom. Percentages were subtotaled according to category of symptoms. The most commonly reported symptoms were examined according to level of disability (little/some difficulty, a lot of difficulty, inability to perform activity). For comparison purposes, analyses were conducted on reports of main conditions causing disability. Main symptom causes of disability were presented according to main condition causes of disability.

RESULTS

Because of the age-stratified sampling, 30% of participants were aged 85 years or older at the second interview. The mean age was 78 years (range 65 to 101 years), and 29% were African American. Only 34% had completed high school, and 51% rated their health as fair or poor. The proportions of women with each type of disability who identified specific symptoms as the main cause of their disability are shown in Table 1. By far, the most common types of disabilities were in walking 1/4 mile, climbing stairs, and bathing. In general, musculoskeletal pain symptoms were the most commonly reported symptoms contributing to disabilities in this population of older women. Not unexpectedly, pains in the lower extremities (hip, knee, calf, ankle, foot) were typically identified as the main causes of disabilities in lower extremity mobility tasks that include bathing, transferring, using the toilet, walking, and stair climbing. Fear of falling and unsteadiness (fall risk) was the main cause of bathing difficulty for 25% (95% CI, 21.5% to 29.3%) of the women who reported this common type of disability. More than half of women who had disability in dressing and over one third with disability in eating reported that arm, hand, or wrist pain was the main symptom causing their disabilities.

Of the women with disability walking across a small room, 29% (95% CI, 23.0% to 34.3%) reported that fall risks were the main symptoms causing their disability. In addition to pain symptoms, endurance problems were frequently identified as main causes of IADL and mobility disability, reflecting the efforts needed to perform activities such as housework, preparing meals, shopping, and stair climbing. Vision problems, rarely mentioned as a cause of disability, were associated with shopping disability by 16% (95% CI, 10.0% to 21.6%) of those who were disabled in this activity. Dizziness, cognitive problems, and incontinence were seldom identified as main causes of disability.

Table 1. Percent of Women with Difficulties in Daily Activities Who Report Symptoms as the Main Cause of Their Difficulty or Inability, 876 Women, 6-Month Follow-up Interview, Women's Health and Aging Study

| Symptom | Lower Extremity Mobility, % | | | | Instrumental Activities of Daily Living, % | | | | Activities of Daily Living, % | | | |
|----------------------|-----------------------------|-------------------------------|-----------------------------|---------------------------|--|---------------------------|--------------------|-------------------|-------------------------------|------------------------|------------------------|------------------|
| | Walking 1/4 Mile (n = 557) | Walking across Room (n = 248) | Climbing 10 Steps (n = 510) | Light Housework (n = 107) | Heavy Housework (n = 311) | Preparing Meals (n = 122) | Shopping (n = 147) | Bathing (n = 472) | Dressing (n = 215) | Transferring (n = 327) | Using Toilet (n = 226) | Eating (n = 108) |
| Hip/knee pain | 25.3 | 33.1 | 32.4 | 19.6 | 14.8 | 23.0 | 19.1 | 27.8 | 13.5 | 43.1 | 38.9 | |
| Leg pain | | 1.2 | 1.0 | 1.9 | | 1.6 | 2.0 | | | | | |
| Calf pain | 1.6 | | | | | | | | | | | |
| Ankle/foot pain | 2.5 | 4.0 | 1.4 | | 2.3 | | 1.4 | | | | | |
| Chest pain | 1.4 | | 1.0 | 12.2 | 15.4 | 8.2 | 6.1 | 5.5 | 5.6 | 11.3 | 6.2 | |
| Back pain | 6.5 | 5.2 | | 4.7 | 8.0 | 3.3 | 2.7 | 3.8 | 23.7 | 2.1 | | 2.8 |
| Arm pain | | | | 7.5 | 2.3 | 8.2 | | 1.5 | 11.6 | | | 34.3 |
| Hand/wrist pain | | | | | | | | 1.1 | | 1.5 | | |
| Other pain | 2.2 | 2.0 | 1.4 | 45.9 | 42.8 | 44.3 | 31.3 | 39.7 | 54.4 | 58.0 | 45.1 | 37.1 |
| Pain (subtotal) | 39.5 | 45.5 | 37.2 | | 5.1 | | 1.4 | 14.4 | 1.4 | 2.1 | 3.5 | |
| Fear of falls | 2.9 | 4.0 | 3.3 | 9.4 | 4.2 | 4.1 | 10.9 | 11.0 | 5.1 | 5.5 | 9.7 | |
| Unsteady/balance | 7.9 | 23.4 | 5.3 | | | | | | | | | |
| Dizzy | 1.4 | 1.2 | | | | | | | | | | |
| Fall risk (subtotal) | 12.2 | 28.6 | 8.6 | 9.4 | 9.3 | 4.1 | 12.3 | 25.4 | 6.5 | 7.6 | 13.2 | |
| Fatigue | 9.2 | | 6.9 | 11.2 | 17.0 | 11.5 | 9.5 | 1.3 | 3.7 | | 1.3 | 2.8 |
| Short of breath | 19.9 | 6.9 | 22.6 | 11.2 | 7.1 | 5.7 | 6.1 | 2.8 | 2.8 | | 3.5 | |
| Endurance (subtotal) | 29.1 | 6.9 | 29.5 | 22.4 | 24.1 | 17.2 | 15.6 | 4.1 | 6.5 | 13.8 | 10.2 | 2.8 |
| General weakness | 4.1 | 3.6 | 4.5 | 5.6 | 11.6 | 5.7 | 6.8 | 11.2 | 8.4 | 9.2 | 8.4 | 1.9 |
| Leg weakness | 6.8 | 5.2 | 7.1 | 1.9 | 2.3 | 6.6 | 5.4 | 6.8 | 3.7 | | | 16.7 |
| Arm weak | | | | 1.9 | | 1.6 | 1.4 | 1.9 | | 2.1 | 5.3 | |
| Leg paralysis | | 1.2 | 2.6 | 3.7 | | 4.1 | | 1.5 | 5.6 | | | 13.0 |
| Arm paralysis | | | | | | | | | 1.9 | | | 5.6 |
| Hand numb | | | | | | | | | | | | 8.3 |
| Tremor | | | | | | | | | | | | 45.5 |
| Weakness (subtotal) | 10.9 | 10.0 | 14.2 | 13.1 | 13.9 | 18.0 | 13.6 | 21.4 | 19.6 | 25.1 | 23.9 | 5.6 |
| Vision problem | 2.2 | 1.2 | | 2.8 | 1.6 | 7.4 | 15.7 | | | | | |
| Incontinent | | | | | | | | | | | | 3.5 |
| Confused | | | | | | | | | | | | |
| Concentration | | | | | | | | | | | | |
| Other symptoms | 4.3 | 2.4 | 4.1 | 5.6 | 4.8 | 6.6 | 4.8 | 6.0 | 10.4 | 8.3 | 5.3 | 7.4 |
| Other (subtotal) | 6.5 | 3.6 | 4.1 | 8.4 | 6.4 | 14.0 | 23.3 | 6.0 | 10.4 | 8.3 | 8.8 | 13.0 |

* Only included symptoms reported by 1% or more in each disability category; all others are included in "other symptoms" category. Columns do not total 100% because of missing responses. Less than 5% had missing symptoms in each category.

Differences were observed in symptom reporting according to level of difficulty or inability in performing basic self-care activities. For example, 35% (95% CI, 27.9% to 42.1%) of women with little or some difficulty in bathing attributed their disability to hip or knee pain, compared to 22% (95% CI, 16.8% to 28.7%) of those who were unable to bathe themselves (Fig. 1A). Upper and lower extremity pain symptoms were the most commonly reported causes of difficulty with dressing. In contrast, general weakness, arm paralysis, and fatigue were most often cited as the main

cause of being unable to dress oneself (Fig. 1B). Hip or knee pain was most frequently identified as the main symptom causing each level of difficulty or inability with transferring, a task requiring lower extremity mobility (Fig. 1C).

Consistent with the symptom findings, osteoarthritis was the most commonly reported main condition causing disability in each ADL (Table 2). For example, of the 472 women who reported disability in bathing, 159 (34%; 95% CI, 29.4% to 38.0%) said that hip or knee arthritis was the main condition causing their disability. The next most common response, "no specific disease," was reported by 57 women (12%; 95% CI, 9.1% to 15.0%) as the main cause of their bathing disability.

To better understand the relationship between condition and symptom reporting, we examined the symptoms that corresponded with the main condition reporting for the 2 most common disabilities, bathing and walking 1/4 mile (Table 3). Two thirds of participants who reported hip or knee arthritis as the main cause of their bathing disability reported hip or knee pain as the main symptom cause of disability. Other symptoms reported by the hip or knee arthritis group were fear of falls, unsteadiness, and leg or general weakness. Weakness and fear of falling were also common symptoms identified by persons who reported "no specific disease" or "old age" in response to the condition question. Results were similar for walking disability, with hip or knee arthritis as the most commonly reported condition. Heart disease was also among the 3 most common conditions reported as the main cause of walking disability, and shortness of breath was the predominant symptom cause of walking disability for 67% (95% CI, 54.6% to 79.4%) of the heart disease group. Among persons who reported "no specific disease" causing their walking disability, fatigue and shortness of breath were the most commonly reported symptoms. Missing responses, as opposed to "no specific disease" responses, to the condition and symptom questions were minimal. In general, a few more women had missing responses to the conditions questions versus the symptoms questions (bathing: 5.3% and 3.6%; walking 1/4 mile: 4.1% and 1.8%, respectively).

DISCUSSION

Despite the substantial variability in symptom reporting, a relatively small number of symptoms were identified by most older women as the main causes of their disabilities. For nearly all types of activities, musculoskeletal pain was most frequently reported as the main symptom causing disability. Other commonly mentioned symptom causes of disability were weakness, unsteadiness, and fatigue. Respondents were able to identify symptoms better than chronic conditions as the main causes of their disabilities. In fact, when symptom reporting was compared to condition reporting, symptoms related to fall risks and general weakness were often not linked to a specific conditions, according to participants. In addition, the findings revealed key differences in reported causes of

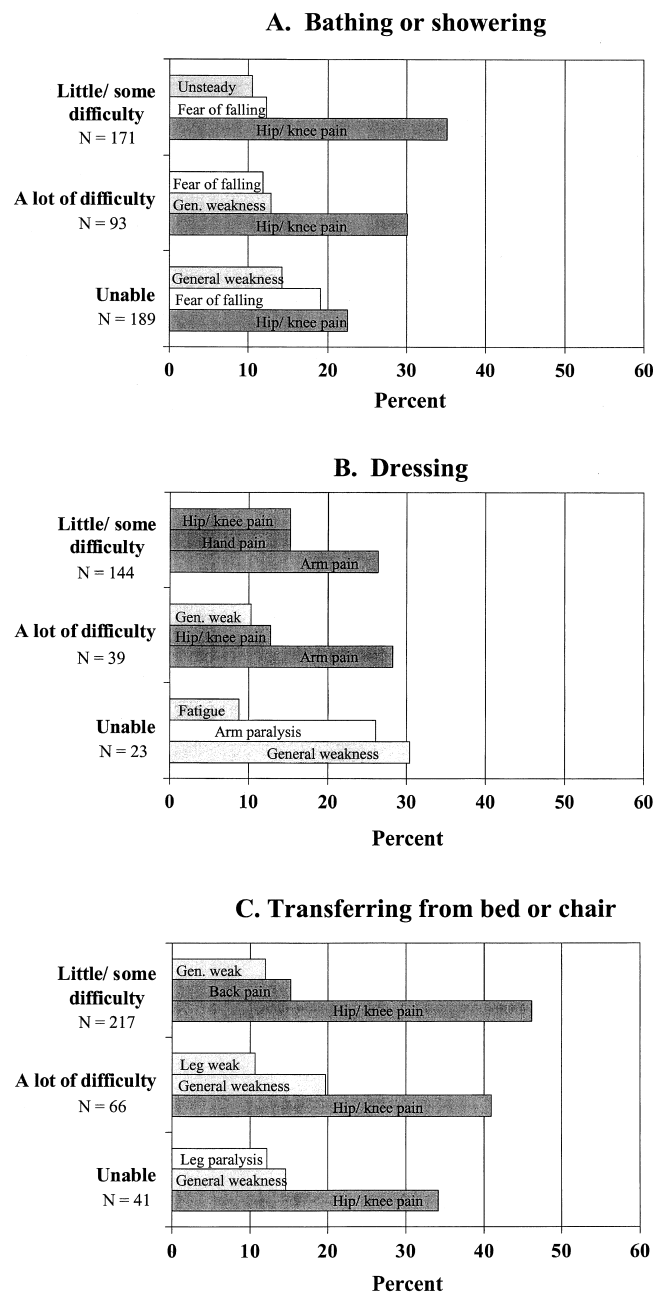


FIGURE 1. Percent of women with the 3 most commonly reported disabling symptoms according to level of difficulty or inability in performing activity, Women’s Health and Aging Study.

Table 2. Most Commonly Reported Conditions* as Main Causes of Disability in Activities of Daily Living

| Condition | Bathing, Dressing, Transferring, Eating, Using Toilet, | | | | |
|---------------------|--|------|------|------|------|
| | % | % | % | % | % |
| Hip/knee OA | 33.7 | 11.2 | 46.5 | | 37.6 |
| Hand/arm OA | | 31.2 | | 41.7 | |
| No specific disease | 12.1 | 8.4 | 9.5 | 9.3 | 12.4 |
| Old age | 5.9 | | | | |
| Stroke | | 8.4 | 7.3 | 15.7 | 11.1 |

* Three most common conditions are shown for each ADL except if there were 2 conditions with same percentage for third most common.
OA, osteoarthritis.

disability by levels of difficulty and inability in performing daily activities. Most importantly, many of the symptoms reported to cause disability are seemingly treatable problems such as pain and deconditioning.

A report from the Cardiovascular Health Study (CHS), a population-based study of 5,201 older men and women in 3 sites across the United States that began in 1989, showed concordance between self-reported diseases and symptoms that were main causes of disability.¹² The CHS population was 95% white, with higher socioeconomic status and better health than the general U.S. population.¹² The most commonly reported symptom cause of disability was pain in the joints or back, consistent with our own findings. In the CHS, "other symptoms" was the second most common response, selected from a list of 11 symptoms.¹² The responses to both the symptoms and conditions questions by disabled women in the CHS were generally similar to the WHAS participants in spite of large socioeconomic and race differences between the 2 study populations.

Our results do not inform us of the causes of disability, which have been addressed in many previous studies,⁵ but instead, describe women's impressions about the main causes of their disabilities. The patterns observed across the activities shown in Table 1 not only offer clues about the common pathologies contributing to

the disabling symptoms but also reveal differences in the physical demands of these activities. In addition, the findings demonstrate the face validity of the question on symptom causes of disability. For example, women reported that fatigue was a frequent cause of disability in IADLs, which generally require more effort than basic self-care tasks. Alternatively, shortness of breath was commonly reported as a cause of disability in walking long distances and climbing stairs, both activities requiring endurance. Unsteadiness was a frequently reported cause of disability in bathing, walking across a room, and shopping. General weakness was most commonly reported for ADL disabilities, reflecting the more disabling nature of this symptom.

The findings from this study initially may seem mundane: women reporting that pain, fatigue, and weakness cause them to be disabled. Such vague symptoms may escape the attention of a primary care provider during the course of a routine medical visit. It is not at all surprising to hear patients with heart disease and arthritis complain of fatigue and musculoskeletal pain. In these circumstances, the traditional focus on underlying pathology would lead perhaps to a medication adjustment or further assessment if indicated. However, the ill-defined problem of weakness may be a harbinger of a clinical syndrome of frailty. In recent analyses of the CHS, a population described previously, weakness, easily measured by grip strength, was determined to be a key component of frailty, a precursor to disability, hospitalization, and death.¹³ These findings were independent of chronic diseases, health status, and social characteristics, providing evidence that seemingly vague symptoms in old age may indicate deteriorating health that is not readily linked to chronic disease.

At what point does disability prevention become the focus of treatment? If a patient reports that her fatigue is so severe and constant that she is no longer able to go out shopping for herself, or has to cut down social activities, does the symptom warrant intervention? What if the patient reports that she now needs help with bathing and dressing because of general weakness? In terms of diagnosis, a standard medical examination may not identify a worsening situation. In terms of treatment,

Table 3. Number of Women Reporting Symptoms as Main Cause of Disability According to Condition Reported as Main Cause of Disability*

| Bathing and Showering (n = 472) Symptom: Number of Women | | | Walking 1/4 Mile (n = 557) Symptom: Number of Women | | |
|---|------------------------------|---------------------|--|------------------------------|------------------------|
| Hip/Knee Arthritis (n = 159) | No Specific Disease (n = 57) | Old Age (n = 28) | Hip/Knee Arthritis (n = 166) | No Specific Disease (n = 63) | Heart Disease (n = 55) |
| Hip/knee pain: 104 | Fear of falls: 18 | Fear of falls: 8 | Hip/knee pain: 113 | Fatigue: 12 | Short of breath: 37 |
| Fear of falls: 15 | General weakness: 17 | General weakness: 8 | Leg weakness: 14 | Short of breath: 12 | Fatigue: 9 |
| Unsteady: 11 | Unsteady: 12 | Leg weakness: 5 | Unsteady: 9 | General weakness: 9 | Chest pain: 5 |
| Leg weakness: 11 | | | Foot pain: 8 | Unsteady: 6 | |
| General weakness: 7 | | | Fatigue: 6 | Fear of falls: 5 | |

* Women were asked 2 questions about cause of disability; one was to identify main symptom, the second identified main condition. Table includes only symptoms reported by 5 or more women.

medical management of chronic disease may not be enough to effectively manage declining function in the older patient. Further evaluation may uncover other factors such as physical deconditioning, social isolation, depression, sleep disturbances, or nutritional deficiencies, to name a few, that may contribute to vague symptoms that interfere with daily activities. Effective disability prevention requires ongoing assessment of functional status and implementation of strategies to reduce risk of functional decline. More work is needed in defining approaches to disability prevention, but we know that physical activity and pain management are two important areas that impact physical functioning but are not adequately addressed in medical practice, particularly in the older population.^{14,15}

Beyond the standard medical regimens that address chronic conditions underlying these symptoms, what more can be done? At the very least, physician advice to patients about recommended exercise levels along with written educational materials can be effective in increasing physical activity.¹⁶ Efforts to engage patients in self-management of chronic conditions, health promotion, and exercise may lead to improved functioning.¹⁷⁻²⁰ The work of Lorig et al. and others has shown that low-cost chronic disease self-management programs are effective in improving function and reducing health care utilization in older persons.¹⁸ Many forms of exercise have proven benefits for functional health in older adults, even in octogenarians and nonagenarians.²¹

Musculoskeletal pain symptoms were reported by at least one third of women with each type of disability. Consistent with our previous reports on the relationship between pain and disability, pain was more commonly reported as a cause of difficulty than inability to perform activities.^{22,23} Others have reported that arthritis is the leading contributor to disability in the older population,^{24,25} and compared to older men, older women have a greater risk for arthritis.²⁶ Both symptom reporting and condition reporting by WHAS participants support these previous studies showing the relationship between musculoskeletal pain, arthritis, and function. Without pain, would these women have the same disability? Accumulating evidence suggests that pain relief in persons with arthritis is associated with improved functioning.²⁷ Exercise has been shown to have lasting benefits for reducing musculoskeletal pain and improving function in older persons with osteoarthritis of the knee.^{20,28,29} We do not know whether this is true for older persons whose pain is not associated with evidence of arthritic disease. Research in this area could improve our understanding of the relationship between musculoskeletal pain and disability, independent of disease, and aid in the development of effective strategies to improve functioning in older persons with chronic pain.

Fear of falling was mentioned frequently as a cause of disability in bathing but was not generally related to any specific chronic condition. Others have shown that fear of falls is associated with walking ability and psychological factors.³⁰ We know from previous research that persons

who have a fear of falling have greater risk for functional decline and nursing home admission.³¹ Researchers have developed approaches to reduce fear of falls,^{30,32,33} but more work in this area is needed. Medical practice has not typically addressed fear of falls, despite growing attention to the problem in the past decade. It is possible that the community-based approaches to address fear of falls and risk of falls in older adults may have an impact on disability stemming from this concern. As with other public health approaches, complementary efforts by health care providers to address fear of falling could result in the greatest benefits to the aged patient population.

Many of the most commonly identified symptoms are treatable, and offer the potential to reduce the disability burden. From a medical standpoint, symptoms must be considered within the context of their etiology, whether it is chronic disease or physical impairments caused by chronic disease. Treatments must be aimed at both symptoms and their underlying pathologies, whenever possible. For chronic impairments, such as arthritic joint deformities, that contribute to pain and fatigue, use of orthopedic braces, shoe modifications, and adaptive equipment can alleviate symptoms and improve function when surgical intervention is not indicated.²⁷ Symptoms such as fatigue, weakness, and fear of falls may reflect a more generalized deconditioning or could be related to depression. However, they may also stem from living with physical impairments caused by disease; for example, range of motion impairments could reduce walking ability and lead to fatigue and weakness. Further research is needed to understand the complex nature of disablement in older persons, but more careful clinical attention to symptoms might alleviate the burden of disability for some older patients.

Our results are generalizable only to similar populations of older community-living women who have disabilities. Symptoms that are disabling to men may differ from those presented here. Our analysis was limited to examining only the "main symptom" causing disability. Respondents were not given the opportunity to identify more than 1 symptom that caused their disability in specific tasks. If given the opportunity, many older women might have reported more than 1 symptom causing disability. It is likely that respondents chose the most bothersome of symptoms when asked to identify the main cause.⁸ Further research is needed to evaluate the co-occurrence of symptoms and how this may influence either the number or severity of disabilities.

The progression of disability is often slow and insidious, particularly in persons aged 85 or older.³⁴ Persons who have difficulty performing ADLs have an increased risk for further loss of functioning.³⁵ There is no point during the slow decline in function at which attention to the problem of disablement is not warranted. Further efforts to address the role of symptoms in the development of chronic and progressive disability in older persons could lead to improvements in quality of life and alleviate the costly problem of disability.

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APPENDIX A

Conditions List

Arthritis of hands, arms or shoulders
 High blood pressure
 Hip fracture
 Injury
 Lung disease (emphysema, asthma, chronic bronchitis)
 Memory problems or confusion
 Parkinson's disease
 Poor circulation in legs
 Stroke
 Eye disease (cataracts, glaucoma, other)
 Weakness/no specific disease
 Arthritis of hips, knees or feet
 Old age
 Surgery
 No specific disease
 Alzheimer's disease or other dementia
 Disc disease
 Medication side effects
 Osteoporosis
 Fatigue
 Shortness of breath
 Other, not disease related
 Back pain
 Weight problem/obesity
 Incontinent/bladder problems only
 Carpal tunnel syndrome
 Hernia
 Amputation
 Spinal arthritis
 Bursitis
 Knee replacement
 Balance problems/unsteadiness
 Hip replacement
 Cancer
 Diabetes
 Depression or other emotional problem
 Hearing problems
 Heart disease (heart attack, etc.)
 Some other problem or condition

APPENDIX B

Symptoms List

Chest pain
 Fatigue, too tired
 Shortness of breath
 Tremor
 Swelling in leg or foot
 Incontinence or fear of incontinence
 Difficulty seeing
 Difficulty hearing
 Confused
 Difficulty concentrating
 Memory problem
 Unsteady on feet/balance problems
 Dizziness or lightheadedness
 Fear of falling
 Anxiety or fear
 Back pain or stiffness
 Wrist or hand pain or stiffness
 Shoulder or arm pain or stiffness
 Hip or knee pain or stiffness
 Ankle or foot pain or stiffness
 Calf (while walking) pain or stiffness
 Leg pain or stiffness
 Other site pain or stiffness
 Fear of pain
 Arm paralysis
 Leg paralysis
 Arm weakness
 Leg weakness
 General weakness
 Hands numb or decreased sensation
 Feet numb or decreased sensation
 Total left side paralysis
 Total right side paralysis
 Other, not disease related
 Other problem or symptom
