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Prevention of Falls in Dickinson County, Iowa

Tamera Frederick

COUN 6785: Social Change in Action:

Prevention, Consultation, and Advocacy

Social Change Portfolio

Tamera Frederick

Contents

Below are the titles for each section of the Social Change Portfolio. To navigate directly to a particular section, hold down <ctrl> and click on the desired section below.

OVERVIEW

Keywords: Falls, Older adult, Dickinson County, Iowa, Evidenced-based fall-prevention

Prevention of Falls in Dickinson County, Iowa

Goal Statement: Falls will be prevented, or the number of falls will be reduced in Dickinson County, Iowa, by creating awareness, supporting existing programs, and implementing evidence-based programming for older adults.

Significant Findings:

Falls are the leading cause of unintentional death to older adults over 65 years of age. A fall can negatively impact an older adult through injuries, loss of independence, and other negative consequences. The impact of ageism can negatively affect the implementation of programming for the older adult. This is seen in the individual and community bias through attitudes, stereotypes, and beliefs. *Fit, and Strong* (Center for Healthy Aging, 2020) and *Healthy Steps in Motion* (Center for Healthy Aging, 2021) are recommended programs to implement for fall prevention in the community. Increasing awareness and strategies to prevent ageism are also recommended.

Objectives/Strategies/Interventions/Next Steps:

1. Align with Iowa's 2017-2021Strategic Plan for Falls Objectives
2. Partner with Dickinson County Public Health to support existing programs.
3. Provide evidence-based community education programs and small groups targeting adults over 50 years and individuals at higher risk of falls to reduce falls.
4. Create an awareness to the public about fall prevention and ageism.
5. Communicate with legislators at both state and federal level to support legislation that promotes the well-being of the older adult.

INTRODUCTION
Prevention of Falls in Dickinson County, Iowa

Falls are the leading cause of unintentional death to an older adult age 65 years and older. The prevention of falls is a significant health concern for this age group in the United States. When older adult falls, they may never fully recover. As the nation grows older, falls will increase, especially for adults 65 and older. A review of falls for the State of Iowa and specifically a county in Iowa, Dickinson County, will be presented. The scope and consequences of falls will be discussed. Protective factors that prevent an individual from falls will be presented as well as factors that put an individual at risk. The financial impact of falls will be shared on a national level and financial data from Iowa and Dickinson County.

A social-ecological model of health promotion will be presented. This model will examine the risks and protective factors on four levels: individual, relationships, community, and society. The application of two health promotion theories, the Health Behavior Model and the Community Organization Model, will be presented with evidence to support each theory regarding falls. A plan for advocacy for the prevention of falls in Dickinson County, Iowa, is presented.

PART 1: SCOPE AND CONSEQUENCES
Prevention of Falls in Dickinson County, Iowa

According to the Centers for Disease Control and Prevention, approximately one out five falls cause serious injury. Injuries from falls may include broken bones, hip fractures, and traumatic brain injuries (Centers for Disease Control, 2017). The consequences of falls include

the loss of independence, restricted activity, or premature death. As the population of the United States and Iowa grows older, the risks of falls will increase (Centers for Disease Control, 2020).

The Iowa Department of Public Health (IDPH) reported falls are the leading cause of unintentional injury-related deaths among Iowans aged 65 or older. In 2017, 62% of deaths related to unintentional injuries were Iowans in this age group. Iowa fall-related deaths increased by more than 43% for all age groups from 2008-2017. In those over 65, the percentage was even higher. During this same time, among the 65 years and older, 28% of deaths were fall-related. Each year in Iowa, there are an estimated 539 individuals die from this preventable accident. (United Health Foundation, 2021).

Falls are very costly. Each year in the United States, about $50 billion is spent on medical costs related to nonfatal fall injuries and $754 million related to fatal falls. The breakdown for nonfatal falls is $29 billion paid by Medicare; $12 billion by private or out-of-pocket payors, and Medicaid pays for $9 Billion. (CDC Centers for Disease Control and Prevention, 2020). In Iowa, IDPH reported falls have resulted in over 87,000 emergency department visits and 8,600 hospital stays in 2017. That same year, 77% of fall-related hospitalizations were persons 65 years and older. The costs to Iowans were approximately $130 million for emergency room visits and $262 million for hospitalizations in this age group that same year (Policy Briefs: Falls in Iowa, 2019).

According to the Iowa County Fall-Related Deaths document, as reported by the IDPH, from the years 2010-2014, Dickinson County reported seven deaths attributed to falls. The average costs of fall-related hospitalizations of all ages were $27,570.31. The average cost of fall-related hospitalizations of those 65 and older was $23,970.00 (Iowa Department of Public Health, 2021).

Falls are the leading cause of injury, which many older adults never fully recover. Falls often contribute to a downward spiral associated with activity restriction or long-term care admission. As the population gets older, the risks of falls will increase. The most recent Cochrane review found strong evidence for the use of exercise for fall prevention (Sibley et al., 2021. Other benefits of exercise in this age group include the reduction of cognitive decline associated with aging, an intervention for depression, medical issues of increased BMI, diabetes, and hypertension management (Gogniat, Robinson, & Miller, 2021).

PART 2: SOCIAL-ECOLOGICAL MODEL

Prevention of Falls in Dickinson County, Iowa

A guide for establishing a framework for prevention is to use the Social Ecological Model (SEM) of Health. This model assists with identifying multiple factors that may affect health. The SEM "understands health to be affected by an interaction between the individual, the group/community, the physical, social, and political environments" (Center for Disease Control, 2015). Fall prevention in older adults living in rural communities and the risks and protective factors of each level, individual, family, community, and societal, will be explored using the SEM model.

The first level of the SEM model is from an individual perspective of those people aged 65 and older. This level includes the physiology and personal characteristics of the individual. A protective measure from this individual perspective would involve talking with the person's nurse practitioner or physician about their medications. Prescribed medications would be evaluated for sleepiness or dizziness. Eyes checked for glaucoma or cataracts or having eyeglasses updated are also interventions to prevent falls. Other individual protective factors

would be the individual's involvement in behaviors that promote their health and wellbeing. Again, several authors cited physical activity as one of the most beneficial interventions to prevent falls. (Centers for Disease Control, 2017), (Peel et al., 2006), (Scheidt, 2020). Other protective factors would include "moderate alcohol consumption, maintaining a healthy weight, playing a sport, and keeping up on preventive medical exams and self-care" (Peel et al., p 495).

Ensuring the home is safe would also be included when considering individual protective factors. Home-based interventions may consist of removing rugs, using grabbers for items not easily reached, using non-slip mats in the bathtub or shower, improving the home's lighting, using handrails, and wearing well-fitted shoes in and outside of the home (Centers for Disease Control, 2017).

The second level of protective factor is relationships. Family and friends are seen as motivation to remain active. Involvement in children or grandchildren's activities encourages the older adult to get out and be active (Schmidt et al. 2016). Friends can be walking buddies and relationships created when attending activity programs.

Supervised exercise programs can be considered a protective factor on three levels, the individual, relationship, and community. Having family close by was seen to impact health positively and keep the older adult active. Higher socioeconomic status, more years of formal education and marriage, are associated with lower fall risk in this age group (Nicklett et al., 2017). On the community level, activity programming, like yoga, dance, or Tai Chi classes targeted toward older adult can assist with fall prevention.

Risk factors for falls on an individual level are being female and an older age. Other risk factors would include a low BMI and weight loss between middle and older age. This risk factor seems contradictory since weight loss is beneficial. Still, weight loss can indicate frailty in the

older adult that may “increase hip fracture through association with several indicators of poor health, including physical disability and low level of physical activity” (Peel et al., 2006 p 495). Other individual risk factors, tobacco use, excess alcohol intake, chronic illness, memory problems, and mild cognitive impairment, are all associated with falls. Individuals with chronic conditions like high blood pressure, diabetes, cancer, lung disease, heart disease, stroke, and arthritis have a shown to have a higher risk of falls. (Peel et al., 2006)

The fear of falling was seen as an obstacle to not participating in physical activity. The reason for this fear was the consequences of falling, i.e., losing their independence or needing to depend on others for their care. Depression and loneliness contribute to sedentary behavior and immobility and can increase the risk of falls. (Scheidt, 2020). Other risk factors for the older adult would include limited social networks. Sometimes, even family members may be overly concerned about older adults' health and limit physical activity (Schmidt et al., 2016).

When considering protective factors to prevent falls in rural communities, the conversation again returns to creating more opportunities in the community for the older adult to remain physically active. Protective factors may include creating neighborhoods where clear roadways and walkways and good street lighting encourage physical activity. Also, communities providing a space to accommodate the older adult during inclement weather without cost would be another example of protective factors for the older adult in the community. (Schmidt et al. 2016). These walkable environments and programs, and activities that encourage social connections would provide opportunities to benefit the older adult.

Risk factors in the community would be environments that inhibit the older person from physical activity, including unaffordable exercise centers and inclement weather such as very hot or very cold, snow, and ice. Fear of falling on ice, loose gravel or muddy roads, poor street

lighting have all been identified by older adults as things that prevented them from physical activity. (Schmidt et al., 2016)

Although there are benefits to living in a rural community, adults living in rural areas tend to have poorer health outcomes such as increased respiratory disease, injuries, suicide, and the impact of chronic disease is greater. (Schmidt et al., 2016). Nonetheless, older adults prefer to and are remaining in their homes. On a societal level, there is a need to create rural communities that honor that desire and promote the well-being of this older population to continue to have a fulfilling life.

PART 3: THEORIES OF PREVENTION

Prevention of Falls in Dickinson County, Iowa

Theories of health promotion are used to create a foundation for understanding why people do or do not engage in certain health behaviors. Theories also help develop program strategies that impact the health issues and determine what should be measured for evaluation. If planning is based on theory, it has a better chance of being successful. A fall prevention plan would be a multi-level approach. Two theoretical perspectives, the Health Behavior Model, and the Community Organization, will be presented. An explanation of each of these theories will be offered as well as the major constructs. These constructs will be applied to falls from an individual and community perspective.

The Health Behavior Model (HBM) presents a health promotion theory from an individual perspective. The six primary constructs to HBM are perceived susceptibility, severity, benefits, barriers, cue to action, and self-efficacy (National Cancer Institute, 2005, p12-13). This theory addresses the individual's perceptions of the threat posed by a health problem (perceived susceptibility and severity), the benefits of avoiding the threat (perceived benefits), and the factors influencing the decision to act (perceived barriers, cues to action, and self-efficacy).

Using the HBM related to the issue of falls, a person would need to recognize they have the potential to fall (susceptibility), and if they fell, how severe would the consequences be to that fall (severity)? What would the benefits be in implementing some fall prevention interventions (benefits)? These benefits may include evaluating the home for any potential issues that could contribute to a fall, like a rug, having a physician or nurse practitioner evaluate meds, involvement in regular physical activity, and strength training. What would get in the way of implementing these interventions (barriers)? Barriers may include costs of joining a gym, transportation, accessibility, weather. What would remind them to do the interventions (cue), time of day, friends, nurse, physician? Lastly, do they feel they are capable of implementing the interventions (self-efficacy)? These factors will be considered when or if a person implements some type of fall prevention strategy.

Community Organization theory looks at health issues from a broader multi-level approach. This process would include community groups identifying common problems, mobilizing resources, and developing and implementing strategies to reach collective goals. Community organization can involve different approaches to affecting change. There are common concepts that are key to achieving and measuring change. These concepts are

empowerment, community capacity, participation, relevance, issue selection, and critical consciousness. (National Cancer Institute, 2005, pp. 23-24)

A brief explanation is provided for each of the concepts. Empowerment describes a social action through which individuals or organizations gain the confidence and skills to improve their quality of life. Community capacity refers to the characteristics of a community that allow it to identify social problems and address them. Participation engages community members as they gain leadership and problem-solving skills. Relevance involves activating the participants to address the issues that are important to them. Issue selection entails pulling apart interrelated problems into issues that are distinct, immediate, and solvable. Critical consciousness emphasizes helping community members to identify the root causes of social problems. Media advocacy is an additional essential component in community organization. Media advocacy strives to balance news coverage by framing issues to emphasize social, economic, and political influences on health (National Cancer Institute, 2005, p. 25).

When applying this health-related problem to the community organization model, there would need to be an acknowledgment by a local health care organization that the Centers for Disease Control (CDC) has determined that falls are the leading cause of fatal and nonfatal injuries of people over the age of 65. Responding to the community's growing population of those over 65 years old and the increasing prevalence of falls within a community, this health care organization may wish to reduce or prevent falls within their community. (Empowerment) Initially, interviews may be conducted with individuals that had a history of a fall-related hospitalization. The interview would include questions about what would have been beneficial to prevent the fall and what strategies the individual would suggest. (Empowerment) Given this information, members from this age group and other stakeholders may convene and identify the

problem of falls within the community. (Community capacity). Through engagement in this process, the members gain leadership and identify solutions (Participation). The community would address issues that are relevant to this community (Relevance). As there will be interrelated issues, these will be separated and moved into distinct issues to be solved (Issue selection). Through the social action process, community members identify the root causes of the problem and create policies and changes the participants have identified. (Critical consciousness).

In identifying evidence-based programs to reduce falls in the community, the CDC and the National Council on Aging have identified evidence-based programs to implement on an individual or community basis. The CDC has a program targeted at healthcare providers and clinic staff. It is based on encouraging the medical community to assess and evaluate the older adult. It is called Stopping Elderly Accidents, Deaths, and Injuries (STEADI). It encourages the health care professional to evaluate the patient's gait, strength, and balance using common assessments. It encourages the health care provider to look at the client's meds, ask about potential hazards in the home, measure the blood pressure, check for visual acuity, assess the patient's feet, vitamin D intake, and any comorbidities (Centers for Disease Control, 2021).

The National Council on Aging has identified several evidence-based programs to implement in the community, YMCA Moving for Better Balance (MFBB), Tai Chi for Arthritis and Fall Prevention, Tai Ji Quan: Moving for Better Balance, Fit and Strong, Bingocize. These programs involve trained professionals, e.g., nurses, physical therapists, or laypersons. (Centers for Disease Control and Prevention, 2020)

Considering the program to implement in a community would result from the community members' input and the available resources. Two programs, *Fit and Strong* and *Healthy Steps in*

Motion, would be evidenced-based programs for Dickinson County. *Fit and Strong* is group based and geared to those individuals that are at a higher risk of falling. *Health Steps in Motion* of the programs is for a broader population of adults 50 years and older.

Fit and Strong is a "top-tier evidence-based group exercise program" (Center for Healthy Aging, 2021). It combines flexibility, low-impact aerobics, and strength exercises with self-management and group discussion geared toward maintaining behavior change, including mobility and overcoming barriers. The target audience is those individuals that have osteoarthritis and are relatively sedentary. Fit & Strong is a 24-session program delivered two-three times a week, with each session for 90 minutes. This program is to be delivered in person and in a group. Outcomes include improved joint pain, lower-extremity strength, mood, and self-confidence. Improvements are seen at eight weeks and maintained out to 18 months. The program can be delivered by a trained lay leader and or certified fitness instructor. (Center for Healthy Aging, 2021).

Healthy Steps for Older Adults is an education program for adults 50 years and older. This program has been shown to reduce the incidence of falls by 18% for program participants and reduce falls-related hospitalization costs by $840 for program participants. It is a two, 2-hour workshop covering physical activity, substance abuse, behavioral health, chronic disease, falls prevention, and medication management. A certified workshop leader must complete three Healthy Steps for Older Adults (HSOA) Workshop Leader training modules (Center for Healthy Aging, 2021).

PART 4: DIVERSITY AND ETHICAL CONSIDERATIONS

Prevention of Falls in Dickinson, County, Iowa

The Senate Committee on Aging, Executive Summary (October 2019) reported the following percentages among race and ethnic groups:

> "Among American Indian/Alaskan Natives (AI/AN), 34 percent reported falls, while 29 percent of whites, 23 percent of blacks, and 20 percent of Asian/Pacific Islanders (A/PI) reported falls. Likewise, 17 percent of AI/AN reported fall-related injuries, compared to only 11 percent of whites, 11 percent of Hispanics, and eight percent of blacks. Women have also reported falls and falls-related injuries more frequently than men, but men have higher rates of fatal falls compared to women" (Collins & Casey, 2019)

In reviewing the literature regarding fall rates among different cultures and ethnicities, there are mixed results about the different racial disparities. Han, Ferris, & Blaum (2014), in reviewing the literature, suggested there may be a difference between fall circumstances and location between racial and ethnic groups; there is a "greater rate of falls outside the home of Caucasian populations compared to African Americans but not Chinese cohorts. Chinese cohorts fall more often during the day, and there may be differences in how Caucasians fall compared to African Americans "(p. 1245). The authors felt the complexity and multi-factorial causes of falls makes it difficult to determine the influence of race and ethnicity on fall rates (Han et al.).

In a 2016 article, authors using data from the National Health and Aging Trends Study, NHATS, attempted to discern what factors could explain previous studies that indicated a reduced fall risk observed among blacks compared to whites. This study was not able to explain what the reasons were for these race-based differences. (Sun et al., 2016). In 2018, researchers

used data from the NHATS to determine if the fear of falling (FOF) might explain racial disparities. This 2018 study noted that Black older adults were less likely to fear falling than White older adults (Singh et al., 2018). The article cited a study done by Sun and colleagues (2016) that found Black older adults had a "30 percent decreased risk for sustaining a fall and a 40 percent decreased risk for sustaining recurrent falls. In 2020, the discussion of fear of falling continued with a look at the fear of falling in Black older adults. Fear of falling is associated with a "lasting concern about falling that leads to an individual avoiding activities that he/she remains capable of performing" (Washington et al., 2020). This article found that Black older adults were 2.17 times more likely to have a fear of falling, and this population would have similar FOF rates to White or other races of older adults within those with high fall risks. These authors suggested that further studies incorporate "measures of psychological factors" in addition to performance-based function to address the FOF among Black older adults (Washington et al., 2020).

In consideration of the topic of diversity, there needs to be a discussion of ageism. Ageism refers to "the stereotyping and discrimination of people due to their chronological age or perception that they are old, or elderly" (Gordon, 2020). Age-based discrimination has been compared to race or gender. In the United States, there is an implicit bias through negative messages about older people. Exposure to the news, common movies, and advertisements has influenced how our minds view people growing older. The stereotype is older people are forgetful, grouchy, or frail. Ageism affects all people but particularly the older population, through all areas of life.

The workplace and healthcare are two places where ageism occurs on a macro-level. In the workplace, when an older person loses their job, it has been shown they have more difficulty finding employment. These workers show higher unemployment rates and longer durations of

unemployment. Negative stereotypes in the workplace are beliefs older workers are less competent and have decreased work performance; they have inflexibility and are reluctant to change. These negative beliefs are also seen with management and influence less frequent hiring of older workers and targeting older workers with layoffs (Gordon, 2020).

In healthcare, there is a lack of access to physicians that specialize in geriatric care. The number of physicians choosing to specialize in geriatrics is far below the demand. Financial reimbursement for time spent in the office with older adults is low, and it's argued ageism is the reason for this (Gordon, 2020 p 171). The "cost and effectiveness of the geriatric assessment has been demonstrated, yet geriatric assessment is poorly reimbursed under Medicare to the point that other more cost-effective procedures must subsidize such activities. Medicare payments are heavily biased toward such procedures" (Gordon, p 171).

As there are not enough geriatric physicians, primary care physicians lack understanding of the aging process and feel continual decline of the older adult is inevitable. There is much evidence of ageist behaviors among healthcare professionals. Some examples are physicians minimizing concerns of older adults, attributing these concerns to their age and not to a medical condition. There is a lower likelihood that physicians will use preventive methods to treat medical or psychiatric problems and physicians consider older patients difficult and less pleasant to deal with.

Looking at ethical issues related to falls, race, and older adults, I am focusing on ageism. From the 2014 ACA Code of Ethics, the first and foremost ethical code that would apply here would be Code A.1.a.: Primary Responsibility: The counselor's primary responsibility is to respect the dignity and promote the welfare of clients. (American Counseling Association, 2014). The second ethical code I think that would be applicable is the ACA code A.7.a. Advocacy:

When appropriate, counselors advocate at individual, group, institutional, and societal levels to address potential barriers and obstacles that inhibit access and growth and development of clients (American Counseling Association, 2014). The third code that loosely applies here would be ACA code C.2.b. New Specialty Areas of Practice. Counselors practice in specialty areas new to them only after appropriate education, training, and supervised experience (American Counseling Association, 2014). My rationale for this code is the older adult does have different issues than other age groups. It would be important that the counselor be abreast of the concerns that face this age group as mental health counselors have not had been able to provide services to the Medicare client due to lack of Medicare coverage unless it would be out-of-pocket or the supplement allowed for this.

Medicare currently does not provide coverage for licensed professional counselors yet. According to the ACA website, bipartisan legislation has been introduced in the Senate and the House to permit Medicare coverage for LPC's (American Counseling Association, 2021).

PART 5: ADVOCACY

Prevention of Falls in Dickinson County, Iowa

The barriers to implementing a fall prevention program in the community are negative stereotypes and beliefs regarding older people. These beliefs may include being old is downward spiral toward the end; what's the point? The erroneous assumption is there is no

financial gain in creating communities that cater to the older adult. This is a barrier to making changes that may help all members of my community.

A barrier at the community level is a lack of awareness of fall prevention and the recognition that not all falls happen inside the home. Many falls happen outside of the home. Another community barrier is the local government does not have a plan to create an age-friendly community. This is a barrier on both a community and a policy level.

According to the Senate Committee on Aging in 2019, states were encouraged to implement evidence-based multi-component interventions that included education and awareness, physical mobility, and home safety (Collins & Casey, 2021). The State of Iowa has a strategic plan to decrease falls. The goals are:

1. Decrease patient falls in the healthcare setting.
2. Reduce falls in the elderly population.
3. Reduce injuries and deaths from falls by expanding the availability of evidence-based programs.

These goals have objectives and a timeline to encourage counties to create environments for the older adult to remain safe and active in their communities. (Iowa Department of Public Health, August 2021)

Barriers to policies and legislation promoting the older adult were the pandemic. COVID-19 put a spotlight on the disregard of the older adult. This was seen during a scaricity of beds and supplies; physicians were forced to choose who would receive treatment. Age seemed the prevalent decision maker (Reynolds, 2020).

Advocacy for the older adult on an institutional level would be contacting my federal legislators and encouraging them to move the Senate Bill S. 2174 or the WELL Seniors Act of

2021. The bill is currently sitting in the committee of the Ways and Means. In addition, encouraging the Federal Legislators to vote for the bill allowing Medicare funding for professional counselors. Educating myself on what bills are being considered on the state level to support the older adult and contacting the Representatives for my county would also be a way to advocate for the older adult on the State level. On the community level, another way for advocating for fall prevention, is talking with the county public health about what the county is doing for fall prevention.

Writing letters to the editor discussing ageism and how it affects the older person in my community would increase awareness of the topic of ageism. Other ways to increase awareness would be offering a program called "Ageism First Aid" (Gerontological Society of America (GSA), 2020). This program would be delivered to major key players in the community, the city council, and the public. Ageism First Aid would open the door to talk with the city council of the importance of creating environments to assist the older adult and developing a community where all age levels are supported.

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DIRECT EMAIL ADDRESS: Tjfrederick13@outlook.com