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Facilitating Effective Communication Between First Responders and Older Adults During Fall Incidents: An Educational Intervention

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Facilitating Effective Communication Between First Responders and Older Adults
During Fall Incidents: An Educational Intervention

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A Capstone Submitted in Partial Fulfillment of the Requirements for the Degree

Master of Science in Occupational Therapy

School of Health and Natural Sciences

Dominican University of California

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This thesis, written under the advisement of Dr. Ruth Ramsey, Ed.D, OTR/L and approved by the chair of the program, Dr. Ruth Ramsey, Ed.D, OTR/L, has been presented and accepted by the faculty of the Occupational Therapy Department in partial fulfillment of the requirements for the degree of Master of Science in Occupational Therapy. The content and research methodologies presented in this work represent the work of the candidates alone.

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Abstract

PURPOSE. The purpose of this project was to provide first responders with communication strategies for older adults that may help when responding to fall-related calls. General information was also provided to First Responders on working with older adults with a focus on the aging process, fall risk factors, and communications strategies.

METHODS. A series of educational sessions to first responders at a local fire district were developed and presented by occupational therapy students. Materials were developed by presenters from evidence-based resources and tailored to the target population. Each presentation focused on statistics about older adults, the aging process, fall risk factors, and effective communication strategies for older adults. Each two-hour presentation consisted of a lecture, role play, and a discussion period.

RESULTS. Evaluations were completed by participants upon the conclusion of each educational presentation. Evaluations included rating the quality and information provided, and whether participants recommend this training to other first responders. The average rating was 92-98% which indicated participants strongly agree and the training was useful and would recommend it to other first responders.

CONCLUSION. As the older adult population increases, more individuals wish to “age in place”, leading to an increased number of falls among older adults, and requiring emergency care from first responders. Information and communication strategies provided through educational presentations to first responders may help facilitate effective communication during an emergency call with an older adult and also prevent future falls. Collaboration with first responders can help occupational therapists develop new roles regarding fall prevention and communication with older adults.

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Introduction

Older adults are the fastest growing age group in the United States (United States Department of Health and Human Services [HHS], Healthy People 2020, 2013). Among older adults, falls are the leading cause of both fatal and non-fatal injuries (CDC, 2013). It is estimated that one out of three “older adults” or individuals 65 years or older, falls each year (Centers for Disease Control and Prevention [CDC], 2013) and fall rates will continue to rise as the “Baby Boom” generation ages (Healthy People 2020, 2013).

A fall incident may have significant negative outcomes for an older adult. Twenty to thirty percent of people who fall suffer moderate to severe injuries such as lacerations, hip fractures, and head traumas (CDC, 2013). Injuries sustained by an older adult can make it more difficult to remain functional, live independently, and participate in daily activities and may also increase the risk of early death. A decrease in activities leads to reduced mobility and loss of physical fitness, and in turn increases the risk of falling (CDC, 2013).

Research suggests that both intrinsic and extrinsic factors contribute to falls (Weitzel et al., 2011; Fiske, Gatz, & Wetherell, 2010; Rubenstein and Josephson, 2002). Intrinsic risk factors include age-associated changes to gait and balance, sensations, psychosocial factors, and declines in functional communication. (Rubenstein and Josephson, 2002; Harwood et al., 2012). Extrinsic risk factors include environmental hazards, poor footwear, and misuse of adaptive devices. (Rubenstein and Josephson, 2002).

First responders such as police officers, firefighters and rescue workers (Academies, 2013), are trained to respond expertly to emergencies with lifesaving

techniques. First responders are often the first individuals to come in contact with an individual who has fallen (Elmqvist, Fridlund & Ekeberg, 2008). As the first to reach individuals in trouble, first responders must be able to accurately communicate with and assess the patient in order to administer proper care. (Pressman, Piertryzyk & Schneider, 2011). Communication between first responders and the person who has fallen is critical for providing quality care (Eadie, Carlyon, Stephens, & Wilson, 2013). Poor quality care can result in a refusal to follow medical advice or accept a referral, often leading to negative health outcomes, including additional fall incidents.

Occupational therapists are licensed health professionals with specialized knowledge of age-related changes in older adults, strategies to prevent falls, and skills to educate caregivers and other helping professionals communicating with older adults. Occupational therapy practitioners provide assessment, training, and support in order to help prevent falls in older adults (AOTA, 2013).

Therefore, a collaboration between first responders and occupational therapists or occupational therapy students can help first responders identify communication deficits routinely encountered when assisting older adults during fall incidents. By providing educational presentations to first responders, communication between first responders and older adults may improve. Partnerships between first responders and occupational therapists may increase effective communication during fall incidents with older adults, therefore providing a better quality of care and improved outcomes for older adults who require assistance from first responders.

Literature Review

Aging in America

According to the Center for Disease Control and Prevention (2013) the number of Americans age 65 or older will double in the next 25 years as a result of two factors: longer life spans and aging “Baby Boomers”. In 2009, the Administration for Community Living of the U.S. Department of Health Services found that adults age sixty-five and older represented 12.9% of the U.S. population, which is nearly one in eight Americans. By 2030, it is estimated that older adults will account for roughly 20% of the U.S. population (CDC, 2013).

Older adults face many challenges when aging. Most older adults want to “age in place”. Aging in place is defined as older adults staying in their homes and communities with their friends and families. A study by the American Association for Retired Persons (AARP) reported that 90% of the older adults surveyed wished to age in place (Farber, 2011). Aging in place can become an issue for older adults because many do not adapt their home environments to meet their changing needs, which can lead to an increased number of falls. Home adaptations may include installing grab bars in the shower, replacing steps with ramps and removing rugs from the floors.

Consequences of Aging

Older adults experience many physical changes as a result of the aging process. Age-related physical changes include a decrease in sensory functions such as vision, hearing, taste, smell, and sensation. It is estimated that 30% of people over age 60 have hearing impairments (Smith & Grove, 2005). Older adults may also experience visual impairments, which can increase their risk of falling by two and a half times (Laurence &

Josephson, 2006). In addition, older adults may have poor blood circulation due to a decreased heart rate, and decreased circulation in older adults may diminish energy levels during physical activities (Smith & Gove, 2005). Older adults often have stiffer, less-coordinated, and more precarious gait patterns. Postural control, speed of body-orienting reflexes, muscle strength and tone, and stepping height all decrease with aging. Increased reflex response times may impair an individual's ability to recover after an unexpected trip, which can lead to an increased risk of falls (Rubenstein, 2002). Gait and balance disorders affect 20% to 50% of older adults (Laurence & Josephson, 2006).

While physical changes are occurring there may also be a decline in cognitive function. Older adults often experience memory loss, decreased attention spans, and decreased visual and spatial abilities (Weitzel et al., 2011). Adults ages sixty-five and older double their risk of developing Alzheimer's and dementia every five years (CDC, 2013). Cognitive decline often results in negative emotions such as sadness, anxiety, loneliness, and lowered self-esteem; these emotions may lead to social withdrawal and apathy. (Silk, 2014). Older adults who experience depression are likely to show negative cognitive changes, increased somatic symptoms, and loss of interest in engaging in their everyday occupations (Fiske, Gatz, & Wetherell, 2010).

Falls in Older Adults

Older adults have an increased risk of falling; one-fourth of persons ages sixty-five to seventy-nine fall every year (Cesari, 2002). Older adults are prone to falls because of clinical disease and age-related physical changes. In a study of adults ages sixty-five and older, 10% needed assistance to walk across a room, 20% were unable to climb a flight of stairs without help, and 40% were unable to walk half a mile (Rubenstein, 2002).

Gait problems may stem from age-related changes in balance as well as dysfunctions in the nervous, muscular, skeletal, circulatory, and respiratory systems. Older adults may also be more susceptible to falls because of deconditioning (Rubenstein, 2002).

Deconditioning is a complex process of physiological change following a period of inactivity, bed rest or sedentary lifestyle, which results in functional losses in such areas as mental status, degree of continence and ability to accomplish activities of daily living (Gillis & Macdonald, 2005).

Falls caused by environmental factors account for 30%-50% of all falls. The most common environmental hazards in the homes of older adults are throw rugs and carpets (Stevens, et al., 2001). However, many falls that occur because of the environment result from an interaction between environmental hazards and the individual's susceptibility to those hazards (Rubenstein, 2002). For example, if an older adult has decreased balance and poor vision due to disease, his or her susceptibility for falling while stepping in and out of the shower increases.

Cognitive impairments also significantly contribute to the increased risk of falling in older adults. According to the Centers for Disease Control and Prevention, a cognitive impairment is when a person has trouble remembering, learning new things, concentrating, or making decisions that affect their everyday life (2011). Alzheimer's, stroke, traumatic brain injuries and other conditions can cause cognitive impairments. Older adults with decreased cognitive function may lack insight and engage in risk-taking activities that can expose them to the risk of falling. The impairment of memory and concentration can make it difficult for older adults to perform activities that require divided attention. This can distract the older adult and cause a fall.

First Responders

First responders are defined as, “a police officer, firefighter, rescue worker, or any other person who provides emergency response, first aid care, or other medically related assistance either in the course of the person’s occupational duties or as a volunteer” (Academies, 2013). Emergency medical services (EMS) started out as an aid for injured soldiers and have grown to help the public (Shah, 2006). EMS was started with Napoleon’s chief physician, Jean Dominique Larrey, who set up a system to treat and transport injured French soldiers during the Civil War (Shah, 2006). By 1960, unregulated systems of EMS had developed. The services were often provided by hospitals, fire departments, or volunteer groups (Shah, 2006). Without any legislation or regulation, EMS was still providing care to patients. In 1965, a survey conducted in 900 cities that found that only 23% regulated EMS services, and 8% had provided advanced medical training, which included American Red Cross advanced first aid course (Shah, 2006). A report by the National Academy of Sciences outlined some EMS inadequacies, which were: no treatment protocols, few trained medical personnel, inefficient transportation, lack of modern communications and equipment, the abdication of responsibility by political authorities, and the lack of research evaluating prehospital care. This report was incorporated into the Highway Safety Act of 1966 (Shah, 2006). This act established federal regulations and involvement to increase EMS plans, ambulance specifications, equipment standards, communications, educational requirements, staffing, and other areas required for caring for medical emergencies (Shah, 2006).

During the 1960s, the American Heart Association and American Red Cross began training health professionals in cardiopulmonary resuscitation (CPR),

defibrillation, cardioversion, and new pharmaceutical therapies. The EMS system has been improving since 1973 due to increases in technology and medication quality to advance the level of emergency care given to patients (Shah, 2006).

First responders receive a total of 17.4 million calls in the U.S. a year (Jacobson et al., 2012). Of those calls, one in twelve are emergency calls for ambulances for older adults who have fallen (Rattue, 2012). During these calls, it takes approximately five minutes to arrive, fourteen minutes on the scene, and eleven minutes to transport a patient if transport is necessary (Jacobson et al., 2012).

A first responder's goal is to arrive at the scene in a timely manner and immediately administer care to the patient. First responders try to reach the patient within eight minutes 90% of the time (Shah, 2006). According to the Battalion Chief of the Novato Fire District (T. Peterson, personal communication), their goal is to arrive at the call within five minutes 98% of the time. Chief Peterson reported that a fire engine and an ambulance arrive at the scene for every call. An engine and ambulance are sent for all calls to increase the speed of arrival and to assist in lifting the older adult (T. Peterson, personal communication, 2014).

First responders use a checklist when arriving at the scene. When first responders arrive at the scene, they first introduce themselves to the patient and ask what their chief complaint is. Then, the first responder observes the scene; this is known as the "primary assessment". The purpose of this assessment is to ensure the scene is safe before administering care, don personal protective equipment (gloves), confirm the patient is safe from further injury, determine how many patients, call for additional resources if needed, observe the position of the patient, and determine what happened to the patient

(Huie, 2015). First responders also assess the home environment and the older adult. The number one goal for first responders is to provide urgent care to the older adult, especially if he or she has sustained injuries or is in critical condition. First responders are also trained to provide acute emergency interventions, such as defibrillation, intubation, and administration of medication (Shah, 2006).

After the primary assessment is administered, the secondary assessment takes place. Its purpose is to determine if there are other non-life threatening conditions. The secondary assessment includes a physical examination of the patient, which can be done while simultaneously obtaining a patient history. This assessment is done to determine whether the patient has any other conditions that could lead to rapid morbidity or imminent mortality (Huie, 2015).

Role of Occupational Therapy in Decreasing Fall Risk

Occupational therapy is a profession that plays a vital role in the prevention of falls in older adults. Occupational therapists possess the necessary skills to evaluate individual and environmental factors that may contribute to falls (Toto, 2012).

Occupational therapists often provide assessment, training, and support to help prevent falls in older adults as part of their clinical practice (AOTA, 2013). When doing a fall prevention intervention, an occupational therapist will first assess the client, observe for any limitations that may affect the client's ability to ambulate, and then determine if they are at risk for falling (Toto, 2012).

During an intervention with a client at risk for falling, the therapist may also perform or suggest environmental modifications to create a safe environment (Pedretti, Pendleton & Schultz-Khron, 2013). A key intervention for the prevention of falls is the

modification of a client's environment. Environmental assessments and modifications includes assessing the home for hazards and installing handrails and other stabilizing devices in the home (Toto, 2012). A study by Turner et. al. (2011), has demonstrated that home modifications can lead to a reduction in falls and injuries related to falls.

Along with environmental modifications, the occupational therapist may design and implement interventions to improve functional mobility. These may include physical conditioning, and education regarding safe techniques to use when completing tasks or activities to decrease the fall risk (AOTA, 2012). These interventions have been proven to increase safety and independence in older adults who are at risk for falling (Toto, 2012). Occupational therapists can also help reduce fall incidents in older adults by establishing and implementing community-based fall prevention programs for clients who are at risk of falling or who have already fallen. Although occupational therapy plays an integral role in fall prevention, a multidisciplinary approach, such as working with first responders, is essential to most effectively address the issue of falls in older adults.

Communication

Communication is used by individuals to perform many functions in their day-to-day activities, including employment, social and leisure activities, community involvement, personal relationships, and meeting their needs for daily living (Baylor et al., 2010). As adults age, their ability to communicate effectively often decreases. With typical aging, communication skills change subtly because of a decline in physical health and cognitive function, including memory (Baylor et al., 2010). In a study of more than 12,000 Medicare beneficiaries aged sixty-five years and older, 42% reported hearing

problems, 26% had writing problems, and 7% had problems using the telephone (Baylor et al., 2010).

Communication is vital when an individual is receiving health-related treatment. In order for helping professionals to provide the best care to an older adult, they must understand their communication needs. For example, many older adults need to have sustained attention, eye contact, simple sentences, and to not be rushed in order to fully understand what is being communicated (Weitzel et al., 2011). A recent study was conducted to determine which factors would increase patients' ability to understand their health care. The results suggested a quiet room with furniture that allows for eye to eye contact, adaptive equipment to supplement verbal communication, and policy changes regarding length of time spent with an individual (Baylor et al., 2010). Client-centered communication is necessary in order to deliver optimal care regardless of the setting where individuals receive their health care.

Communication and first responders.

First responders must be able to communicate effectively when responding to calls. During emergency situations, life saving techniques such as stabilizing vitals signs and controlling bleeding are a first priority for first responders (Elmqvist, Fridlund & Ekeberg, 2008). However, first responders must also be able to accurately communicate to assess and administer proper care (Pressman, Piertryzyk & Schneider, 2011).

Therefore, first responders need to be able to communicate effectively with older adults, especially during a fall incident (Elmqvist, Fridlund & Ekeberg, 2008). A study by Goniewicz, Jarosz & Woloszczak-Szubsza measured the professional communication competencies of paramedics. Through analysis of documentation, diagnostic surveys

concerning professional communication competencies of paramedics, and professional self- evaluations, this study concluded that undergraduate education alone produces a relatively low communication competency (2013). The study authors hypothesized that lack of training may not be the cause of low communication competencies, but regression due to the emotional stress of the job (Goniewicz, Jarosz & Wloszczak-Szubzda, 2013).

During such emergencies, one study suggests the first responders should stay physically close, touch the patient (i.e. hold their hand, rub their back), speak in a soft voice, and use their name (Elmqvist, Fridlund & Ekeberg, 2008). Other strategies first responders can use to improve communication are low-tech products such as language boards, mobile phone or tablet apps, and translation products (Pressman, Piertryzyk & Schneider, 2011).

First responders must understand how to effectively communicate with patients in order to better meet the patient's needs and decrease negative feelings that can occur due to poor communication. Individuals in emergency situations regularly report instances in which communication barriers resulted in feelings of increased anxiety, fear, frustration, and overall loss of control with first responders (Pressman, Piertryzyk & Schneider, 2011). Communication barriers may have a negative effect on an individual's willingness to cooperate or comply with recommended treatment (i.e. following up with referral). Communication barriers can also contribute to poor quality of care, therefore use of good communication techniques is crucial for first responders (Eadie et al., 2013) . Many techniques can be used by first responders to decrease communication barriers and negative outcomes. Being seen, heard, and taken seriously are all needed components in

creating a positive encounter between first responders and older adults (Elmqvist, Fridlund & Ekeberg, 2008).

Conclusion

In conclusion, as the population ages, the number of falls in older adults increases. Many aging adults want to remain in their homes and communities rather than move to senior housing. As normal aging takes place physical, sensory, cognitive, and psychosocial changes also occur. These changes may lead to falls, which can be a traumatic experience. First responders are often the first to come in contact with the older adult who has fallen and may benefit from training in effective communication skills. Occupational therapy practitioners are educated and trained in issues related to older adults, including communication and fall prevention. Therefore, occupational therapy practitioners are well suited to provide information and training for first responders in order to facilitate communication with older adults during fall incidents.

Statement of Purpose

First responders are receiving an increased number of calls for fall incidents in older adults. First responders may be lacking the skills, knowledge and training to effectively respond to and communicate with older adults. Occupational therapists have knowledge and skills for working with older adults and in fall prevention (American Occupational Therapy Association, 2013). By educating first responders, occupational therapists can help teach first responders skills needed to communicate effectively with the older adults during fall incidents.

Therefore, the purpose of this project was to develop and implement a series of training sessions for the firefighters of the Novato Fire District. Our goal was to provide

general information about older adults and specific information on effective communication skills for first responders to use when serving older adults, especially those who had fallen. Improving communication may increase the quality of the fall incident experience for the first responders and older adults, and help the Novato Fire District develop strategies to prevent future falls in older adults.

Theoretical Framework

Andragogy is an adult learning theory and was first introduced by Malcolm Knowles in the United States during the early 1970s (Knowles, Holton & Swanson 2005). Andragogy is the art and science of helping adults learn (Knowles et al., 2005). Andragogy includes six assumptions about the characteristics of learners. The first assumption is that as learners mature, their self-concept moves from being dependent to being self-directed. Adult learners feel responsible for their decisions, such as first responders make decisions within seconds to help others. The second assumption is that learners accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning (Knowles et al., 2005). In this project, the first responders have grown in experience with older adults who have fallen because their number one call is for fall incidents.

The third assumption is that learner readiness to learn becomes increasingly oriented towards developmental tasks of their social roles (Knowles et al., 2005). The fourth assumption is that learner's time perspective changes from one of postponed application of knowledge to immediacy of application. Accordingly, their orientation toward learning shifts from one of subject-centeredness to one of performance centeredness (Knowles et al., 2005). During our trainings, the first responders learned

new information to help them when responding to calls. Once the training was over and a call was received, the first responders could then immediately apply the new knowledge to the call. The first responders' and our goal was to improve the performance of the call incident and better assist the individual or individuals in need.

The fifth assumption is the need to know. Adults want to know why they need to learn before they learn (Knowles et al., 2005). The sixth assumption is motivation. There are two types of motivations: external and internal. Most adults have the external motivation (promotion, better pay, etc.), but internal motivation (increased job satisfaction, self-esteem, quality of life, etc.) is more difficult for adults to come by (Knowles et al., 2005). First responder's know they need to continue their education throughout their careers in order to provide effective care to patients. First responders have the external motivation to satisfy the community and help those in need, but for some it may be more difficult to have internal motivation due to an incident not going well for them. Finding the internal motivation to continue and do better next time can be difficult to acquire. However, when they talked about aging family members who had fallen, they seemed to become more intrinsically motivated versus going because it was required.

These six assumptions of andragogy helped the project developers better understand the first responders as adult learners. Experienced first responders have increased knowledge to help new first responders starting out. First responders are thus intrinsically motivated to learn new communication techniques to use with older adults who have fallen (T. Peterson, personal communication, 2014). Based on these

assumptions, the first responders were motivated to participate in the training and communicate their experiences with each other to continue learning.

Knowles also has five principles to guide teaching in andragogy. The first principle is preparing the learners, which includes the student being involved in the planning and evaluation of their instruction and the teacher is the facilitator (Knowles et al., 2005). The project developers outlined teaching topics to facilitate during the teaching presentation. The project developers submitted the topics to Battalion Chief Ted Peterson to receive his input. Once the topics were finalized, they were sent to Mr. Peterson for final approval.

The second principle is diagnosis of needs, which includes the experiences and mistakes made by the learners that show the need for learning (Knowles et al., 2005). Experience is often the best basis for learning. Battalion Chief Tep Peterson told the project developers that when the first responders experienced a difficult fall incident, if mistakes were made they always gathered afterwards to talk about what occurred (T. Peterson, personal communication, 2014). The first responders saw what mistakes were made and what they did well in responding to the incident. The first responders then discussed better ways to handle the situation to learn. During our presentation, we facilitated drills with the first responders. As we did the drills (role-playing), we discussed what went well and what could improve their communication with the techniques provided in the presentation.

The third principle is designing the learning plans. Learners are most interested in learning subjects that have relevance and impact to their job or personal life (Knowles et al., 2005). The majority of calls first responders receive are for older adults who have

fallen (T. Peterson, personal communication, 2014). Communication with the older adults who have fallen is of relevance because the first responder's need to be able to effectively communicate with older adults to give quality care. The first responders attended the training session because they were required to as part of their job. However, the trainings were designed to help them respond more appropriately to the problems they face on a daily basis. In this case, the problem was effective communication with older adults who have fallen.

The fourth principle is the learner is able to participate actively in the learning process (Knowles et al., 2005). The first responders actively participated throughout the educational presentation. The teaching presentation was designed to first discuss first responders' experiences' in assisting older adults during a fall incident. The last part of the session was designed to have the first responders participate in drills to practice the communication techniques that were introduced.

The fifth principle is that learning is reinforced by application and prompt feedback (Knowles et al., 2005). The first responders talked about the drills that were implemented during the training to see what techniques they used and how well the techniques worked for them. The first responders also gave the project developers feedback by filling out a likert-scale survey.

Definitions

For the purpose of this project these terms were used and are defined as follows:

Fall: "An unexpected event in which the participants come to rest on the ground, floor or lower level" (Lamb, Jorstad-Stein, Hauer, & Becker, 2005).

Older adults: “The term used to refer to individuals in their later years of the life span. Arbitrarily set as sixty five years and older in American society for the purpose of age-related entitlements” (Jacobs & Jacobs, 2009).

Aging in place: “Remaining living in the community, with some level of independence, rather than in residential care” (Wiles, Leibing, Guberman, Reeve, & Allen, 2012).

First responder: “A police officer, firefighter, rescue worker, or any other person who provides emergency response, first aid care, or other medically related assistance either in the course of the person’s occupational duties or as a volunteer” (Academies, 2013).

Communication: “To impart information through verbal and non-verbal interactions.” (Jacobs & Jacobs, 2009).

Multidisciplinary: “Several healthcare disciplines provide treatment to one person” (Jacobs & Jacobs, 2009).

Novato Fire District: “The purpose of the district is to provide all-risk emergency and non-emergency services to the City of Novato and the surrounding unincorporated area” (Novato Fire District, 2015).

Methodology

Agency Description

The agency that received the educational presentations during this project was the Novato Fire District. The Novato Fire District consists of five firehouses that serve the community of Novato. The Novato Fire District has four fire engines, one fire truck and three ambulances. The community of Novato is located in Northern California and has a

population of 54,194 residents; 15.7% of these residents are sixty-five years of age or older (United States Census Bureau, 2014). The Novato Fire District has received numerous awards such as the Center for Public Safety Excellence Commission on Fire Accreditation International (2009), the Certificate of Achievement for Excellence in Financial Reporting (2008, 2009, 2010), and the IAFC Fire Service Award for Excellence (2003). The Novato Fire District was selected due to an ongoing collaboration between the Dominican University of California department of occupational therapy and the Novato Fire District.

The mission statement of the Novato Fire District is “To care for, protect and serve our communities” (Silverman, Revere & Nickel 2011). They provide education and training classes such as Community Emergency Response Training (CERT), CPR and fall prevention (Silverman, Revere & Nickel 2011). Novato Fire District’s eight guiding principles are:

1. We are committed to the protection of life, property and the environment.
2. We believe that the communities are the reason for our existence.
3. We will foster and sustain the trust of our communities and each other, while also protecting that confidence through our attitude, conduct and actions.
4. We believe that all members of our diverse communities are entitled our industry’s best practice.
5. We will serve our communities with honesty, fairness and integrity.
6. We will pursue safe, effective, timely, economical and measurable solutions.
7. We will consistently provide professional, skilled, courteous and compassionate customer service.

8. We will be sensitive to the changing needs of our communities (Silverman, Revere & Nickel 2011).

The eight guiding principles of the Novato Fire District demonstrate that they are an organization focused on providing effective and compassionate care to their community.

Project Design

This project consisted of a single two hour educational presentation and brochure delivered six times to different groups of first responders in the Novato Fire District. The presentations were given on March 3, 2015, March 17, 2015, and March 31, 2015. On each day, two presentations took place, the first from 10:00am-12:00pm and the second from 1:30pm-3:30pm. The presentations were broken into two fifty-minute periods with a ten-minute break in the middle. The content of all six presentations was the same, but the participants varied for each session. The purpose of the project was to offer an educational presentation for the first responders of the Novato Fire District. The educational presentation consisted of a lecture portion, presented using a PowerPoint format (Appendix A), and a series of “drills” or role playing, which were used to engage the participants. Role playing was an effective way to enact typical scenarios for the first responders; the presenters were then able to observe how they reacted and give suggestions for future interactions with older adults. After the role play was complete a discussion followed for the other first responders who did not participate in the role play to give suggestions to their fellow first responders. These methods were chosen in consultation with our faculty advisor and Battalion Chief Peterson due to their previous effectiveness at delivering information to first responders. A brochure encompassing fall risk factors and helpful community resources was developed and given to the fire district.

Target Population

Our primary target population were the 66 firefighters of the Novato Fire District. The secondary population who may benefit from the increased communication and sensitivity skills of the first responders of the Novato Fire District is older adults who reside in the city of Novato.

Project Development

To develop this project an extensive review of the literature was conducted to gain knowledge on current research regarding the following: older adults, the aging process, falls in older adults, communication needs of older adults, and first responders. Each presenter was also required to participate in a “ride along” with the Novato Fire District. Through this experience, the presenters obtained information about the firefighters and the Novato Fire District. The “ride along” included observing first responders for five to eight hours and accompanying the first responders on the ambulance and fire trucks during routine calls. Group members were able to watch the first responders respond to calls and observe the group dynamic at the firehouse. The group members developed a better understanding of the strict routines that the first responders follow each day, the fire house atmosphere, and the different roles each first responder has during a call. This was helpful for the presenters to observe because they gained a better understanding of how the planned presentation fit into the schedule of the first responders. It was also beneficial for the presenters to understand and observe that when the first responders get a call they must drop everything and respond. This was important for the presenters to understand because during one of the presentations the

first responders received a call, and the presentation had to be stopped and continued once the first responders returned.

Meetings with the Battalion Chief, Ted Peterson, were held to obtain information about the Novato Fire District. Our faculty advisor Dr. Ruth Ramsey and Chief Peterson met with key informants, such as the medical doctor of the Novato Fire District to better understand the scope of the existing problem. Chief Peterson also provided information about how to develop the teaching presentation and suggest dates when the presentations would take place. Consultations with our faculty advisor took place to assist with organization and implementation of the presentations. Presentation topics were identified from a previous needs assessment conducted by students in an OT Program Development class in Fall 2013, as well as with input from Chief Peterson and faculty advisor.

Project Implementation

The educational presentations (Appendix A) were implemented on March 3, 2015, March 17, 2015, and March 31, 2015. The first educational presentation on these days was held at Novato Fire District Station 61 from 10:00am-12:00pm. The second educational presentation was held at Novato Fire District Station 65 from 1:30pm-3:30pm. At Station 61, the presentations took place in a classroom-like setting with tables, chairs, and a larger projector. At Station 65, the room was set up with eight lounge chairs and a projector. We presented to a total of 66 first responders, with an average audience size of 12, over the course of the three days and six presentations. All four presenters attended each presentation. We did not make any major changes to our original project implementation plan. Learning objectives were:

1. By the end of the presentations participants will understand the changes that occur as adults age, and how these changes can increase the risk of falling.
2. By the end of the presentation participants will be able to name three effective communication strategies for use with older adults.
3. By the end of the presentation participants will demonstrate the communication strategies that were presented.
4. By the end of the presentation participants will have gained resources (i.e. brochure, communication techniques) to use when responding to older adults.

We had the first responders sign a media consent form because we took pictures throughout the presentations for documentation (Appendix C).

The educational presentations (Appendix A) covered many different changes that older adults face as they age. We first presented on the normal aging process. This included hearing loss, decreased reflexes, and decreased stepping height. Next we discussed the fall risk factors for older adults as they age. These fall risk factors included: polypharmacy, decrease in cognition, poor nutrition and hydration, and substance abuse. The presenters related all this information to an increase in fall risk, which leads to more calls for first responders. After the presenters discussed the changes in older adults and what puts them at risk for falling, different communication techniques were taught that the participants could use when working with older adults. Some of these communication techniques included: speak slowly and clearly, show respect, maintain eye contact, use short sentences.

After the participants were educated about the different techniques the presenters read some mock scenarios and asked how the participants would respond. The presenters

then took this activity to the next level and had the participants act out what they would do. At the end of the presentation an original brochure (Appendix B) was given to the participants for older adults, their families and caregivers who may not be going to the hospital but may need some additional assistance after a fall. This brochure included information on risk factors for falling and community resources for nutritional services, help with substance abuse, and fall prevention programs.

Overall, we felt the presentations were a success. One of the major surprises we found when presenting was how humorous the first responders were. For example, when asked how often they work with older adults one first responders replied and said, every day and then pointed to his co-worker. This made the presentations enjoyable but also posed a challenge for us in getting them to take the material seriously. The presenters quickly learned how to joke with the first responders and when it was appropriate, and when to bring the conversation back to a serious tone.

Another obstacle we encountered was the different settings of the various fire stations. In Station 61, which was a classroom setting in the morning, the first responders were very engaged. However, at Station 65 the presentation was in the afternoon, were reclining on lounge chairs, and therefore the first responders were less engaged. As occupational therapy students, the presenters have been educated about the importance of setting up the surroundings to make it easiest to learn. This was demonstrated by the differing responses at the different firehouses' and the different times of days.

Project Evaluation

Evaluation forms were given to all participants at the end of each presentation (Appendix D). The evaluation form asked participants to critique the presentation in the

following areas: objectives of the training were clearly defined, content was organized and easy to follow, participation and interaction were encouraged, this training experience will be useful in my work, trainers were knowledgeable about the training topics, trainers were well prepared, and I would recommend this training to other first responders.

Participants were asked to rate each category using a Likert scale format ranging from one (strongly disagree) to five (strongly agree). The average scores were 95%, which fell within the strongly agree category. This indicates that the first responders believed the training had clear objectives, the content was organized, participation was encouraged, the training was useful to their work, the trainers were knowledgeable, the trainers were prepared, and they would recommend the training to other first responders. Areas for improvement were noted, especially in the category of usefulness of the work in training experience.

The Novato Fire District also had the participants complete a survey after each training, using Survey Monkey to examine the effectiveness of the training. The criteria were: course met the stated instructional objectives, instructor's demonstrated mastery of the subject, and information or materials are applicable to your professional practice. The scores from the NFD evaluation averaged to 84%. The results of the student evaluation and the NFD evaluation differed. The first responders filled the student evaluation out after the presentation when the presenters were still there, and the first responders filled out the NFD survey once the presenters had left. The difference may have been due to a positivity bias in completing the student given evaluations.

Ethical and Legal Considerations

The OT Code of Ethics considered in this project were veracity, autonomy, and beneficence. Project leaders considered the OT Code of Ethics ethical principle of veracity for this project. Beauchamp & Childress (2009) state that veracity is based on the virtues of truthfulness, candor, and honesty. The principle of veracity in health care refers to comprehensive, accurate, and objective transmission of information. Veracity was assured by providing the participants with accurate and evidence-based educational information on effective strategies for communicating with older adults.

The ethical principle of autonomy refers to “self determination” (American Occupational Therapy Association, 2010). Autonomy is a person’s right to hold views, to make choices and to take actions based on personal values and beliefs (Beauchamp & Childress, 2009). Project leaders respected the first responder’s preferred level of participation and ensured that the first responders understood their right to autonomy. Media release forms were given to first responders to ensure project leaders had authorization to use photographic reproductions of them for educational and/or public media purposes.

Beneficence refers to all forms of action intended to benefit other persons (American Occupational Therapy Association, 2010). This ethical principle was considered through the project leaders’ goal to maximize the benefits of this project for the first responder participants.

Discussion, Summary, and Recommendations

We developed this project as a continuation of a past research study conducted by our faculty advisor, Dr. Ruth Ramsey and other occupational therapy students. We

reviewed the literature and consulted with our community partner, Chief Ted Peterson, and established the need for training programs for first responders working with older adults. After reviewing the literature we met with Chief Peterson to discuss what information the NFD needed. We then developed our presentation, rehearsed it and received feedback from our faculty advisor. Then it was time to implement our educational presentations. Presenters arrived thirty minutes early to each presentation to set up and prepare for when the participants arrived. Once the participants arrived the presentation was given.

The entire process of reviewing the literature, consulting with Chief Peterson and our faculty advisor, developing and delivering the presentation was a learning process. We learned how to effectively search the literature, professionally interact with community partners, and plan and implement a two-hour community educational presentation for non-occupational therapists.

We also learned about the true meaning of flexibility. First responders are a lively group that enjoys using humor whenever the opportunity is given. This made presenting to the first responders of the Novato Fire District a challenge because when discussing a serious topic such as aging they were often joking. However, being flexible allowed us to joke with them yet bring them back to the topic when needed.

Overall, we felt the presentations were a success. The first responders benefited from this presentation because it was offered as a “refresher course”. They may not have learned as much new information as we were hoping, however they were reminded of changes that occur during the normal aging process and communication strategies to keep in mind when working with older adults. We believe that the educational presentations

benefitted the first responders of the Novato Fire District in their daily occupations. They will be able to use the information we presented to them while engaged in their occupations as first responders.

If similar projects take place, we suggest the presentations occur in a classroom setting. We found that participants who received our presentation in a classroom setting were more receptive and engaged than participants who were seated in lounge chairs in the fire station's living room. If implementing a similar presentation to first responders, we recommend bringing snacks, such as cookies or donuts. The participants seemed to enjoy and appreciate this, and it also helped build rapport. We also recommend incorporating humor into the presentation, as this helped us feel more comfortable with the first responders and also helped to establish rapport with them.

If we were to implement educational presentations similar to these, we would memorize the material beforehand to be less reliant on our note cards. We would also set up the environment differently or request to present in a different room. We believe that presentations like ours should be implemented in all fire stations.

We believe that this is an important field of endeavor for occupational therapists to do more work in. As occupational therapists, one of our jobs is to educate others. Through this project we educated the first responders of the Novato Fire District on the communication needs of older adults. During this process we also advocated for the communication needs of our future clients, older adults, so they can receive quality care from first responders. Because occupational therapists have knowledge and skills to help prevent falls in older adults, they can educate first responders in this area. In turn this could help reduce falls and reduce the number of calls that first responders receive for

falls. If the number of calls for falls for first responders decreases, first responders will have more time and resources to use in other life-threatening incidents.

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Appendix A

Powerpoint given to first responders

Communicating with older adults: Presentation to Novato Fire Department

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Dr. Ruth Ramsey, faculty capstone advisor
Dominican University of California
Department of Occupational Therapy
03/31/15

Introduction

- Presenters
- Occupational therapy
- Topic



Older Adults: statistics

- 1 in 8 Americans are over 65
- By 2030, 1 in 5 Americans will be over 65
- 16% of Novato residents are older adults



Aging Process

- What changes do you see in others?



Aging process cont.

- Hearing and visual impairments
- Reflexes, muscle strength and tone
- Stepping height
- Changes = increase number of falls
- Which leads to....
- MORE CALLS FOR YOU!

Laurence & Josephson, 2006; Rubenstein & Josephson, 2002; Smith & Grove, 2005

Fall Risk factor: polypharmacy

- Long term use of 2 or more drugs
- Symptoms: decreased alertness, confusion, falls, weakness, tremors, dizziness
- Older adults living in their homes take an avg of 4 prescribed meds
- Which leads to...
- MORE CALLS FOR YOU!



Dagli & Sharma, 2014; Frazier, 2005

Fall Risk factor: nutrition & hydration

- Older adults do not consume enough protein
- Decreased protein leads to increased muscle loss
- Vitamin D deficiency is prevalent in older adults
- Decreased vitamin D leads to low muscle strength and falls
- With age, body loses ability to detect thirst
- Poor fluid intake leads to: dehydration, low blood pressure, fatigue, confusion, and falls
- Which leads to...
- MORE CALLS FOR YOU!

Faes, Spigt, & Rikkert, 2007

Fall Risk factor: Substance abuse

- 1 in 5 older adults may have substance abuse (SA) issues
- People with SA are 4.5 times more likely to fall
- Sensitivity to alcohol ↑ while tolerance ↓
- % of body weight composed of water decreases, which allows alcohol to effect more quickly and to a greater degree
- Higher prevalence with: death of loved ones, retirement, and loss of health



Verster, Brady, & Galanter, 2013

Fall risk factor: Cognition

- Slightest cognitive decline ↑ falls
- Stroke, Parkinson's, Dementia
- ↓ Executive function leads to inconsistent gait
- Which leads to an ↑ number of falls

Fischer, Gleason, Gangnon, Janzowski, Shea, & Mahoney, 2014

Communication deficits in OA

- Older adults experience physical and cognitive decline
- Changes in language comprehension
- Reduced information processing speed

Harwood, 2012

Communication deficits in OA with Dementia/ Alzheimer's

- Symptoms: memory loss, confusion, disorganized thinking, trouble expressing selves, disorientation to time, space, and place
- Reduces the ability to code and understand information (receptive language) and ability to encode and express information
- Behavior is a form of communication, including non verbal behaviors

Harwood, 2012 and Zembruski, 2013

Communication deficits in older adults with hearing impairment

- Third most common chronic condition in OA
- Speech generally sounds mumbled and unclear to OA
- Decline in auditory function: known as presbycusis,
- Affects high frequency sounds
- Decreased ability to understand consonant sounds

Harwood, 2012 and Hingle & Robinson, 2009

break

Welcome Back!

Communication strategies

Speak clearly & slowly

Harwood, 2012

Communication strategies

Show respect to OA

Communication strategies

Maintain eye contact

Communication strategies

**Use short sentences,
simple words**

Communication strategies

**Ask one question at a
time**

Communication strategies

**Use verbatim
repetition**

Harwood, 2012

Communication strategies

Maintain positive tone

Communication strategies

**Verify listener
comprehension**

Communication strategies

Use direct concrete language

Communication strategies

Include older adult in conversation

Harwood, 2012

Communication strategies

Avoid ageist assumptions

Communication strategies

Express understanding and compassion

Communication strategies

Face the older adult directly

Helpful Phrases

Helpful ideas

Emotional labeling

Davis & Dressler, 2013

Helpful ideas

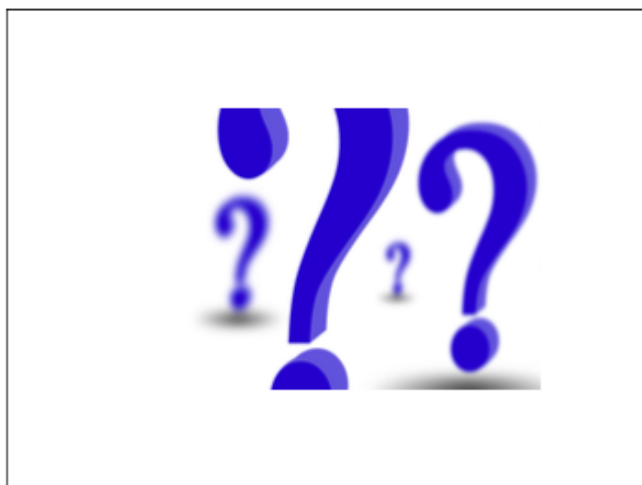
Validating

Helpful ideas

Restating

Helpful ideas

Giving feedback



Video

- [Communication with Older Adult](#)

Scenario 1

- You are talking with an older woman you think may have a hearing impairment. You talk louder but she still seems to have a problem hearing and understanding you. How could you communicate more effectively with her?

Scenario 2

- You respond to a call from a man's wife that he has fallen. Upon arriving the man's wife is nervous and scared for her husband. You want to find out what happened to the man but she keeps talking for him. How would you communicate with both parties?

Scenario 3

- You are in the middle of a call at a patient's home. Everything seems to be progressing in a positive manner, then suddenly you sense patient has become quiet and withdrawn. How would you handle this situation?

Drill #1

- A 93 year old female has a history of falls and was found lying on the left side of her body in the bathroom. When asked, the patient does not report any pain and states, "I'm fine, all I need is a little massage I will be okay." However, the patient screams and begins to cry when EMS attempts to assist her off the floor. The patient cannot bear any weight on the affected side and cries out, "I FEEL SO STUPID! What will others think of me? Please don't take me to the hospital". Medical charts report that patient has a secondary diagnosis of dementia.

Hin, Pulido, Vazquez, 2013

Drill #2

- An 88 year old female, called 911 because she has fallen. When you arrive, she is lying on the kitchen floor. You try to speak to her, but she responds in broken English. She tries to explain what happened in Spanish. How would you communicate in this situation?

Drill #3

- You arrive at an elderly man's home. You suspect he is under the influence. He yells out, "I'm fine, just trying to make the pain go away. Just help me up." How would you communicate in this situation?

Discussion Questions

- Take a moment to discuss an emergency call where you may have felt uncomfortable or experienced difficulty with an older adult.
- Knowing what you know now, what might you have done differently?
- What other strategies and techniques can you offer your fellow team mates?

Hin, Pulido, Vazquez, 2013

Referrals



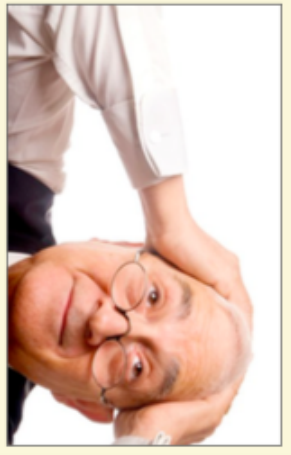
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Appendix B Referral Brochure



What are the risk factors contributing to falls?

- ◆ Poor Nutrition & Hydration
- ◆ Polypharmacy
- ◆ Alcohol/Substance Abuse
- ◆ Hazardous living situations

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DOMINICAN UNIVERSITY OF CALIFORNIA
DEPARTMENT OF OCCUPATIONAL THERAPY

TIPS TO PREVENT FALLS



One in three adults over
65 falls each year.

Are you at risk?

WHO CAN YOU CALL FOR HELP?

MARIN COUNTY INFORMATION AND REFERRAL

MARIN COUNTY ADULT AND AGING 415-457-4636

NUTRITIONAL SERVICES

NOVATO INDEPENDENT ELDERLS (NIEP)

DESCRIPTION:
 +GROCERY DELIVERY
 +SEASONAL PRODUCE AT WHOLESALE PRICE
 +GROCERIES DISTRIBUTED "FARMERS MARKET STYLE"

PHONE: (415)899-8296
WEBSITE: WWW.NOVATOSENIORS.ORG

ALCOHOL/SUBSTANCE ABUSE

MODERATION MANAGEMENT SUPPORT GROUP

DESCRIPTION:
 +FOR ADULTS WHO ARE LOOKING INTO THEIR ALCOHOL USE

PHONE: (415)689-1017

IN HOME SERVICES

IN-HOME SUPPORT SERVICES (IHSS) PROGRAM

DESCRIPTION:
 +RECEIVE IN-HOME SUPPORT WITH PERSONAL CARE, PARAMEDICAL SERVICES, HOUSE CLEANING, COOKING, SHOPPING AND ACCOMPANIMENT TO AND FROM MEDICAL APPOINTMENTS

PHONE: (415)473-7118
ADDRESS: 10 N. SAN PEDRO RD., SAN RAFAEL, CA
WEBSITE: WWW.PAMARIN.ORG

POOR NUTRITION & HYDRATION

Only 15% of older adults consume enough protein. Lack of protein leads to loss of muscle, which increases risk of falling. Drink 6-8 glasses of liquid daily for proper hydration.

POLYPHARMACY

Polypharmacy is defined as "the long term simultaneous use of two or more drugs." Signs of polypharmacy include: tiredness, sleepiness, decreased alertness, and weakness. All these symptoms can lead to falls.

ALCOHOL/SUBSTANCE ABUSE

ABUSE

One in five older adults may be affected by alcohol and drug abuse. Older adults are 4X more likely to fall if abusing alcohol or drugs.

UNSAFE LIVING CONDITIONS

Falls caused by environmental factors account for 30%-50% of all falls. Minimizing throw rugs and carpets can reduce risk of falling.

Appendix C
Media Consent Form



I, _____, agree to be
photographed or videotaped by Dominican University of California.

I fully understand and agree that any statements I make or any photographs taken of me may be displayed in public places, duplicated, distributed and/or published by Dominican University of California in a manner including, but not limited, to the following:

- Photographic display
 - Audio recording
 - Video tape
 - Newspapers
 - Via internet
 - Website

I release Dominican University of California and their officers, agents, employees, volunteers and/or students from any and all claims that might arise from use of such statements and/or photographs.

Date _____

Signature _____
(Signature of parent/legal guardian is required for minors to participate.)

Appendix D
Student Evaluation given to first responders

<p>Presentation to Novato Fire Department: Communication with Older Adults</p> <p>Krystin <u>Beeman</u> OTS, Erica Berger OTS, Isabel <u>Cabezas</u> OTS, and Nicole Mathews OTS</p> <p>March 3,17,31 2015</p> <p>Station 61, 65</p>					
Please rate:					
<i>1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 =strongly agree</i>					
The objectives of the training were clearly defined	1	2	3	4	5
The content was organized and easy to follow	1	2	3	4	5
Participation and interaction were encouraged	1	2	3	4	5
This training experience will be useful in my work	1	2	3	4	5
The trainers were knowledgeable about the training topics	1	2	3	4	5
The trainers were well prepared	1	2	3	4	5
I would recommend this training to other first responders	1	2	3	4	5

Appendix E
Novato Fire District Evaluation

Please answer the following on a scale of 1-5 (poor to excellent):

- Please indicate the extent to which the course met the stated instructional objectives.
- Please indicate the adequacy of the instructors mastery of the subject.
- Please indicate the applicability of the information or material to your professional practice.
- Please indicate the extent to which new information was applicable to your practice.
- Please list any suggestions on how to improve this educational presentation or learning module. If none, then state so in the reply section.
- Please enter any additional information you have (optional).

Appendix F Presenter's Script

Intro:

Who are we?

Hello, and welcome to our presentation about communication with older adults. My name is Nikki, this is Erica, Krystin and Isabel. We are occupational therapy graduate students from Dominican University.

-We will give an example of our experience with an older adult***

Why are we here?

We are here today to continue work that our faculty advisor started with your battalion chief Ted, Peterson a few years ago. We were invited here today to speak to you about older adults and different communication strategies that you can use when working with older adults.

What is OT?

What is occupational therapy? Occupational therapy is a client-centered health profession concerned with promoting health and well being through occupation. The primary goal of occupational therapy is to enable people to participate in their activities of everyday life. For example, kids playing in the play ground, a person with a spinal cord injury learning how to drive with hand controls, and helping older adults live independently.

Why do we care?

As occupational therapists one of our main roles is to be advocates for our patients. Older adults are a primary population that we work with. In order for OA to get the quality care they need they need to be able to effectively communicate with others including first responders. As they age OA have challenges in communications so we as health care and emergency providers need to learn strategies to more effectively communicate to give older adults the quality care they need.

• Question:

- About how many calls did you go on last month that were for an older adult?
- Follow up: What kind of challenges did you face? what was that like for you?

OA Stats:

In 2009, 1 in every 8 Americans were age 65 and older.

By 2030, 1 in every 5 Americans will be 65 and older.

Today, Novato has a population of 54,194 people and almost 16% of older adults account for the population.

Aging Process

• Question (write on board/big paper):

- We would like to ask you all a couple questions now.
 - First, what changes do you see in other adults as they age?
 - And now, what changes do you see in yourself as you age?

Aging Process Cont

• Yes, as we age it is typical to experience many changes. It is estimated that 30% of older adults have hearing impairments. Older adults also experience visual impairments that increase their risk of falling by two and a half times, which may result ***in more calls for falls!!!*** In addition to hearing and vision changes, an individual's postural control, speed of body orienting reflexes, muscle strength and tone, and stepping height all decrease with age. These decreased reflexes may impair an individual's ability to recover after an unexpected trip, which results in more calls for you!

Contribution to falls: polypharmacy

- Now that we have learned about older adult statistics and the aging process, we are going to talk about some risk factors older adults have that lead to an increased chance of falling
- One of the risk factors contributing to falls is polypharmacy
- Can anyone give me the definition of polypharmacy without looking at the powerpoint?
- The formal definition of polypharmacy is, "the long term simultaneous use of two or more drugs;" long term 480 days or more in two years
- The signs and symptoms of polypharmacy include: tiredness, sleepiness, decreased alertness, constipation, loss of appetite, confusion, depression, weakness, tremors, visual or auditory hallucinations, anxiety, dizziness, and falls
- A minor case of polypharmacy is 2-3 drugs, a moderate case is 4-5, and major is greater than 5
- Older adults living in their homes were found to be taking an average of four prescription medications daily
- On admission to a hospital older adults were found to be taking an average of 4-5.7 drugs daily

- Older adults are at risk for adverse drug reactions (ADRs) because of metabolic changes such as older adults are less able to effectively metabolize and excrete multiple medications during the aging process. This risk is further exacerbated by an increased number of drugs used
- Polypharmacy's signs and symptoms may lead to misinterpretations of a new disease which in turn a new drug therapy will be introduced; increasing the case of polypharmacy in that older adult.

Contribution to falls: poor nutrition & hydration

- Only 15% of older adults consume the amount of protein they need
 - When less protein is consumed than is needed there is muscle loss, which results in increased falls.
 - After the age of 70, there is approximately 15% muscle loss per decade
 - Vitamin D deficiency is the most common nutritional deficiency for older adults
 - Low blood levels of vitamin D are associated with decreased muscle strength and falls
 - It is difficult for older adults to obtain adequate amounts of vitamin D from diet and sunshine, so supplements are necessary, but rarely taken
 - If an older adult has poor fluid intake it can lead to: dehydration, low blood pressure, reduced kidney function, urinary tract infections, fatigue, confusion, and falls
- As a person ages, their body loses the ability to detect thirst

Fall risk factor: substance abuse

- Another risk factor for falls includes substance abuse. It is estimated that 1 in 5 older adults may have alcohol and drug abuse issues. Older adults are 4 ½ times more likely to fall when affected by substance abuse. This is because as older adults age, sensitivity to alcohol increases while their tolerance decreases for a variety of reasons. For example, older adults % of body weight composed of water decreases, which allows alcohol to affect them more quickly and to a greater degree. Older adults have a higher prevalence of substance abuse following: death of loved ones, retirement, or loss of health.

Fall risk factor: Cognitive decline

Even the slightest Cognitive decline may increase the risk of falling. Cognitive disorders found in older adults include stroke, Parkinson's and dementia. Most research done that links decreased cognition and falls is focused on executive functioning. Executive functioning includes: planning, executing and monitoring activities, initiation, motivation, and judgement. A decrease in executive function leads to inconsistent gait and an increased number of falls.

Typical communication deficits in older adults

First I want to ask you what kind of changes you see in communication as adults age?

With typical aging communication skills subtly change because of changes in physical health and cognitive decline including memory. Changes in language comprehension are attributed to a gradual and steady decline in working memory. Reduced information processing speed and capacity leads to problems in understanding complex sentence structures.

Communication deficits with Alzheimers/Dementia

I will now discuss some of the communication deficits that OA with Alzheimers'/Dementia have.

The classic presentation of Alzheimer's begins with vague symptoms of memory loss and confusion that gradually worsens. Other symptoms may include: disorganized thinking, impaired judgment, trouble expressing themselves, difficulty recognizing familiar people, and disorientation to time, space and location.

Most patients with Alzheimer's also develop behavioral symptoms at some point during the course of the disease such as agitation, depression, and paranoia.

Dementia reduces the ability to code and understand information and the ability to encode and express information, making it difficult for an older adult to communicate. Therefore, behavior is frequently a form of communication for persons with dementia.

Persons with Dementia may express non-verbal behaviors, such as; restlessness, agitation, aggression, and combativeness, which are often an expression of their unmet needs.

Older adults with Dementia may have repetitive vocalizations and changes in tone, urgency, or repetitiveness of speech which can also signify many needs they are experiencing.

Communication deficits with hearing impairment

Did you know that hearing loss is the third most common chronic condition reported by older adults?

As you all know, hearing loss affects the ability to hear and distinguish certain speech sounds. As a result, speech in general, may sound mumbled and unclear.

Older adults have a decline in auditory functioning know as PRESBYCUSSIS, which particularly affects high frequency sounds. This can make it hard for older adults to respond to warnings, hear phones, doorbells and smoke alarms.

Older adults have a decreased ability to understand consonant sounds, which affect an older adult's ability to understand the beginning and end of words. For example, you might say, "Take the pill in the morning." And they understand it as; "Rake the hill in the morning."

Questions (write on big paper):

- We will be taking a break shortly but first we want to provide you all with some questions to **think** about during the break
 - How can you communicate more effectively with people with these deficits.
 - What works? What does not work?
 - What have you tried?

BREAK

"Welcome back from the break. I hope it was enjoyable and you are ready to continue! Our first topic is communication strategies you can use while on a call with an older adult."

Communication strategies

These communication strategies include:

- Speak clearly
- **Show respect (for example: saying "Sir" or "Ma'am")**
- Maintain eye contact
 - ❖ Be at eye level with patient
- Use short sentences and simple words
 - ❖ "Are you okay?" "Do you have pain?" "You will be okay".
- Ask one question at a time
- **Use Verbatim repetition**
 - Repeating the same sentence allows for better understanding
 - "Are you prescribed any medications?" (Use same sentence)
- Maintain a positive tone
 - Avoid phrases such as can't, won't, should. Instead use a courteous tone that is polite and respectful that does not lecture the older adult or use language that suggest the older adult is at fault or unreasonable
- Verify listener comprehension:
 - By using questions or asking them to repeat back important information
- Use direct, concrete language
 - Avoid idioms such as, "jump the gun," or "rub someone the wrong way."
- **Include the adult in the conversation**
 - Even if the companion is in the room
- Avoid ageist assumptions
- Express understanding and compassion
 - Helps patients manage fear and uncertainty
- Face the older adult directly

Helpful phrases

- In addition to the previous slide here are some helpful strategies and phrases you can use when assisting older adults.
- The first strategy is Emotional labeling: An example of emotional labeling is
 - “You seem really sad about that.”
 - This allows the speaker to put feelings into words, so the older adult feels understood.
- The next strategy is Validating: An example of validating is
 - “I appreciate you telling me that.”
 - This phrase shows good will and promotes trust between the first responder and older adult
- Another strategy is Restating: An example of restating is
 - “So you would like your family to respect your wishes to stay at home.”
 - By summarizing what the individual has stated and repeating it to them shows you are listening and helps verify what the older adult is saying
- The final strategy is Giving feedback: An example of giving feedback includes
 - *“It appears to me that this reoccurrence of falls is causing you and your family hardship.”*
 - This lets the older adult know you are thinking about their situation and allows you to share insights or experiences
 - can any one give me an example of “FEEDBACK”?

Scenarios

1. You are talking with an older woman who you think may have a hearing impairment. You talk louder but she still seems to have a problem hearing and understanding you.
 - focus on facing the patient, talk ing more clearly and slightly louder, verify listener comprehension
2. You respond to a call from a man’s wife that he has fallen. Upon arriving, the man’s wife is nervous and scared for her husband. You want to find out what happened to the man but she keeps talking for him. How would you communicate with both parties?
 - Use direct concrete language, include the man who has fallen in the conversation, show respect, express understanding and compassion
3. The last scenario we have is: You are in the middle of a call at a patients home. Everything seems to be productive and progressing in a positive manner. All of a sudden you begin to sense the patient has become quiet and with drawn. How would you handle this situation?
 - Focus on the patient, ask if he/she is okay or if something else is going on, express understanding and compassion, face the adult, maintain eye contact

Role Play (Drill):

A 93 year old female has a history of falls and has found laying on the left side of her body in the bathroom. When asked the patient does not report any pain and states, "i'm fine, all I need is a little massage I will be okay" however the patient screams and begins to cry when EMS attempts to assist her off the floor. The patient can not bear any weight on the affected side and cries out, "I FEEL SO STUPID! What will others think of me? Please don't take me to the hospital". Medical charts report that patient has a secondary diagnosis of dementia.

Facilitating questions:

- How would you address her concern about "feeling stupid"?
-

Role Play (Drill) #2:

An 88 year old female called 911 because she has fallen. When you arrive, she is lying on the kitchen floor. You try to speak to her, but she responds in broken English. She tries to explain what happened in Spanish. How would you communicate in this situation?

Role Play (Drill) #3:

You arrive at an elderly man's home. You suspect he is under the influence. He yells out, "I'm fine, just trying to make the pain go away. Just help me up." How would you communicate in this situation?

Discussion:

- Take a moment to discuss an emergency call where you may have felt uncomfortable or experienced difficulty with an older adult.
- In retrospective knowing what you know now, what could have you done differently.
- What other strategies and techniques can you offer your fellow teammates?

