Establishing a Direction for the Fire and Health Liaison Project

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Establishing a Direction for the Fire and Health Liaison Project

**Description**
The Fire and Health Liaison Project was inspired by the Manchester Fire and Mental Health Liaison Project (MFMHLP). The MFMHLP is a collaboration between Manchester Mental Health and Social Care Trust (MMHSCT) and Greater Manchester Fire and Rescue Service (GMFRS) beginning in March 2009. As a part of the MFMHLP, an occupational therapist serves as the Fire and Mental Health Liaison Officer (FMHLO). As the FMHLO, the occupational therapist accepts referrals from both the MMHSCT and GMFRS for individuals suspected of being at a high risk for fire, coordinates joint home fire safety checks, and carries out fire risk assessment and intervention for individuals with mental health disabilities. The FMHLO uses occupational therapy skills to assess the individual in relation to their environment, activities of daily living, and risk of fire. Following assessment and intervention, the FMHLO creates a risk management report to provide recommended control measures and a risk management plan.

In 2013, “Developing Community Partnerships for Fire Safety and Prevention Program” was the first project completed by Pacific University occupational therapy students as a part of the Fire Liaison Project. It was implemented by Benjamin Fenison and Alyssa Finn with the overall goal of increasing communication between health care providers and emergency responders to promote safety for those with disabilities within the Colorado Estes Park community. Primary strategies utilized to meet project goals were: identifying stakeholders, conducting needs assessments, establishing partnership agreements between stakeholders, gathering contact information, researching demographic information, and exploring assessment options.

This year, occupational therapy students Kelsey Fuller and Nicole Sato strived to address similar increased fire risks for those with disabilities within Washington County. Prior to this project, there was a lack of understanding regarding how to address increased fire risk for those with physical and mental disabilities within Washington County. Information gathered and summarized in this study identified population needs and will serve as a reference for the future direction of the Fire and Health Liaison Project.

**Resource:** [http://fireliaison.wikispaces.com/](http://fireliaison.wikispaces.com/)

**Disciplines**
Occupational Therapy

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This year, occupational therapy students Kelsey Fuller and Nicole Sato strived to address similar increased fire risks for those with disabilities within Washington County. Prior to this project, there was a lack of understanding regarding how to address increased fire risk for those with physical and mental disabilities within Washington County. Information gathered and summarized in this study identified population needs and will serve as a reference for the future direction of the Fire and Health Liaison Project.

The focus of this project was to gather information regarding the need for programs which address increased fire risk for those with physical and mental disabilities within Washington County. All goals focused on establishing a future direction for the Fire and Health Liaison Project. Goals included in this project were to develop an understanding of how increased fire risk for those with physical and mental disabilities are being addressed within Washington County, understand the level of communication between health care providers and emergency first responders, gather information on current fire safety programs for those with disabilities, identify potential methods for evaluating individuals at suspected higher risk for fire, and understand stakeholder interest in future Fire and Health Liaison projects.

Information was gathered in relation to factors contributing to increased fire risk, national fire incidence trends for those with physical and mental disabilities, current research on fire risk, data available to support the need for future programs, stakeholder interest in potential programs,
current programs targeting needs of the identified population, opportunities and barriers of potential programs, and level of communication between health care providers and emergency first responders. The authors conducted research through Internet searches, phone calls to health care providers and fire districts within Washington County, attending meetings with stakeholders, and emailing stakeholders.

The gathered information was organized in SWOT analysis grid sheets or summarized in paragraph form. All information was uploaded onto an interactive Wikispace webpage created and organized by the authors. The purpose of the webpage is to serve as a resource for future occupational therapy students to quickly access information for the Fire and Health Liaison Project as well as serve as a place for sharing information between occupational therapy students, health care providers, and emergency first responders who work with those with physical and mental disabilities. The Wikispace webpage can be easily accessed at http://fireliaison.wikispaces.com/.

The results of the project indicate a need to facilitate communication between health care providers and emergency first responders as it relates to identifying individuals at higher risk for fire as well as stakeholder interest in such communication. During interviews, fire prevention personnel and health care providers indicated that increased communication was needed to meet the specific needs of those with physical and mental disabilities. Other identified needs included: educational programs for first responders addressing specific needs of those with physical and mental disabilities, method for first responders to refer individuals for further assessment to occupational therapists, and a method for gathering local data on fire incidence for identified population.

The Occupational Therapy Framework supports the extension of services to meet the needs identified in this program by stating that occupational therapists are responsible for “knowing and performing preventative procedures to maintain a safe environment as well as recognizing sudden, unexpected hazardous situations and initiating emergency action to reduce the threat to health and safety” (American Occupational Therapy Association, 2002). Future students involved in the Fire and Health Liaison Project may use information compiled on the Wikispace to support the development of programs, which will address the need areas identified through this project.
**SWOT Analysis Grid Sheet: Fire Liaison IPP**

**Internal:** Individuals or groups of individuals over which the organization has a degree of control or authority; occupational therapists within Washington County

**External:** individuals or groups of individuals outside of the authority or control of the organization; Emergency first responders, those with physical and mental disabilities within Washington County

<table>
<thead>
<tr>
<th>I</th>
<th>Strengths</th>
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<tbody>
<tr>
<td>N</td>
<td>Occupational therapists use the Occupational Therapy Practice Framework (OTPF) to define their scope of practice.</td>
</tr>
<tr>
<td>T</td>
<td>Engagement in occupation includes both the subjective (emotional or psychological) aspects of performance and the objective (physically observable) aspects of performance. Occupational therapists and occupational therapy assistants understand engagement from this dual and holistic perspective and address all the aspects of performance (physical, cognitive, psychosocial, and contextual) when providing interventions designed to support engagement in occupations and in daily life activities (American Journal of Occupational Therapy, 2002).</td>
</tr>
<tr>
<td>E</td>
<td>Occupational therapists are knowledgeable about the variety of physical, cognitive, and psychosocial client factors that influence development and performance and how illness, disease, and disability affect these factors. The occupational therapist recognizes that client factors influence the ability to engage in occupations and that engagement in occupations can also influence client factors (American Journal of Occupational Therapy, 2002).</td>
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<tr>
<th>W</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>N</td>
<td>Need for increased occupational therapy practitioner education.</td>
</tr>
<tr>
<td>T</td>
<td>Very little, if any, awareness or education within occupational therapy practice regarding the important role OTs play or could potentially play in improving safety and awareness among individuals with physical and cognitive disabilities that may place them at an increased fire risk. In an article reviewing current occupational therapy publications in home health, the importance of addressing fire safety and risks were not found to be included in any of the reviewed articles (Craig, 2012).</td>
</tr>
<tr>
<td>R</td>
<td>The Health Insurance Portability and Accountability Act of 1996 (HIPAA) provides an obstacle in terms of establishing a pathway for client information between occupational therapists and fire safety personnel.</td>
</tr>
<tr>
<td>N</td>
<td>“HIPAA provides federal protections for individually identifiable health information held by covered entities and their business associates and gives patients an array of rights with respect to that information. At the same time, the Privacy Rule is balanced so that it permits the disclosure of health information needed</td>
</tr>
</tbody>
</table>
The OTPF states that occupational therapists are responsible for “knowing and performing preventative procedures to maintain a safe environment as well as recognizing sudden, unexpected hazardous situations and initiating emergency action to reduce the threat to health and safety” (American Journal of Occupational Therapy, 2002).

**The ethical standards of the occupational therapist profession support the responsibility of therapists to meet the fire safety needs of those with physical and mental disabilities.**

The first principle, beneficence, of the ethical standards “requires taking action by helping others, in other words, by promoting good, by preventing harm, and by removing harm (American Journal of Occupational Therapy, 2010).

The fourth principle, social justice, supports “the general idea that individuals and groups should receive fair treatment and an impartial share of the benefits of society” and that the occupational therapists role includes taking “responsibility for educating the public and society about the values of occupational therapy services in promoting health and wellness and reducing the impact of disease and disability (American Journal of Occupational Therapy, 2010).

**Occupational therapists have a role in disaster preparedness.**

Occupational therapists have the education and skills to design disaster preparedness interventions that are “meaningful and purposeful to those engaged in them… that support the individual for patient care and other important purposes” (U.S. Department of Health and Human Services, 2014).

**Limited resources (time, money) within occupational therapy departments.**

“Tuality Home Health therapy department has two full time occupational therapists and one on-call occupational therapist” (Tuality Home Health Therapy Manager, personal communication, March 3, 2014).

**Funding and reimbursement constraints and complications.**

“Reimbursement can also be complicated because of varying state and local payment policies, as is the case with reimbursement through Medicare, which is run by the federal government” (American Occupational Therapy Association, 2012).

Relationship between client health insurance and the number and type of occupational therapist recommendations for equipment and home modifications. Research found that publicly insured patients received fewer occupational therapy home modification recommendations compared to privately insured patients (Lysack & Neufeld, 2003).

While there are a number of standardized assessments that may be used by occupational therapists to identify those who may be at increased fire risk, there are no assessments developed to specifically assess fire risk for individuals with
or the agency in performing what the context of the disaster
requires” (Scaffa, Geradi, Herzberg, & McColl, 2006).

“Occupational therapy practitioners can contribute to
interdisciplinary efforts of disaster preparedness through their use
of activity analysis, skills at grading and adaptation of tasks,
knowledge of contexts, and an understanding of the occupational
needs of individuals and families” (American Occupational
Therapy Association, 2011).

There are a number of standardized assessments that may be
used by occupational therapists to identify those who may be
at increased fire risk.

The Safety Assessment of Function and the Environment for
Rehabilitation Tool (SAFER).
• The four page assessment covers 128 items or functions
divided into 15 areas of possible concern; Living situation,
mobility, kitchen, eating, household management, fire
hazards, dressing, grooming, bathroom, medication,
communication, recreation, wandering, memory aids, general
items and security. The assessment follows that tenant that
“when safety is being considered, it is not enough to know
whether the client is protected by such features as a smoke
alarm and a fire extinguisher, or that accidents are less likely to
happen because the stairs are well lit and in good condition; it
is also necessary to know how the client fits into that
environment” (Oliver, Blathwayt, Brackley, & Tamaki, 1993).

The Westmead Home Safety Assessment (WeHSA)
physical or cognitive disabilities. Further, the majority of
assessments identified primarily assess the environment, often
excluding how the person functions in that environment.

The SAFER was developed for geriatrics in order to “identify
problems that could endanger the lives of seniors or force them to
move into institutions” (Oliver, Blathwayt, Brackley, & Tamaki,
1993).

The WestMead Home Safety Assessment was developed for
older populations and primarily assesses “the physical and
environmental home hazards of people at risk for falling”
(Clemson, 1997).

The Cougar Home Safety Assessment was developed for older
individuals and primarily assesses the environmental factors of
the individual’s residence (Fisher, Coolbaugh, & Rhodes, 2006).

The Safety for Older Consumers Home Safety Checklist is a self-
assessment for residents to evaluate the safety of their
environment (United States Consumer Product Safety
Commission, n.d.).

The Home Safety Assessment Tool is a self-assessment that
addresses environmental hazards within and outside of the
home. Includes solutions for problem areas within the home
primarily to decrease falls for older adults but assessment items
do address fire safety and prevention (University of Buffalo,
2009).
<table>
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<tr>
<th>Assessments need to be developed that assesses the environment, occupation and person on a physical and cognitive level so that needs may be better met to educate, prevent and serve individuals who may be at an increased fire risk due to physical or cognitive disabilities.</th>
</tr>
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<tr>
<td>• The WeHSA is a 72-item checklist developed to assess the physical and environmental home hazards of people at risk of falling, primarily older adults. Hazard information is recorded relating to external and internal traffic ways, the general environment, and specific rooms such as the bathroom. Other risks such as seating, footwear, medication and personal alarm systems are also targeted as part of the assessment (Clemson, 1997).</td>
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| The Cougar Home Safety Assessment for Older Persons 1.0  
• This assessment is a 56-item tool for identifying environmental safety hazards in the homes for older adults. Each safety criterion is rated safe, unsafe, or not applicable. There is also an area for rater comments related to each criterion (Fisher, Coolbaugh, & Rhodes, 2006). |
| The Safety for Older Consumers Home Safety Checklist  
• Developed by the Consumer Product Safety Commission, this assessment was developed for residents to self assess areas of the home, including electrical and telephone cords, rugs, runners and mats, telephone areas, smoke detectors, electrical outlets and switches, light bulbs, space heaters, wood burning stoves, and emergency exit plans (United States Consumer Product Safety Commission, n.d.). |
| The Home Safety Assessment Tool  
• Comprehensive self-assessment that addresses environmental hazards within and outside of the home. Includes solutions for problem areas within the home primarily to decrease falls for older adults but assessment items do address fire safety and prevention (University of Buffalo, 2009). |
### Opportunities

FEMA reports support that those with physical and mental disabilities would benefit by the implementation of the fire liaison project (Federal Emergency Management Agency United States Fire Administration, 2011).

1) Those with mental disabilities often have increased fire risk because it is difficult to recognize fire hazards and navigate an escape route due to cognitive challenges.

An estimated 1,700 residential building fires involving individuals with mental disabilities are reported to U.S. fire departments each year and cause an estimated 85 deaths, 250 injuries, and $61 million in total loss.

- Intentional is the leading cause of residential building fires (40 percent) where a mental disability is reported as a human factor contributing to ignition.
- Sixty-five percent of residential building fires involving individuals with mental disabilities are limited to the object or room of origin.
- Kitchens and bedrooms are the primary areas of origin for residential building fires involving people with mental disabilities (26 percent each).
- Residential building fires involving individuals with mental disabilities are more prevalent in January (9 percent) and December (9 percent) and peak between 4 and 6 p.m.

2) Those with physical disabilities often have increased fire risk because it is difficult to navigate an escape route due to decreased

### Threats

Those with physical and mental disabilities may not advocate for program services due to lack of awareness of increased fire risk or overestimation of first responders ability to reach them on time.

58% of people with disabilities say they do not know whom to contact about emergency plans for their community in the event of a crisis.

61% say they have not made plans to evacuate their homes quickly and safely

People with disabilities said that they had opted not to be identified as disabled in the emergency management plan prior to the 1993 bombing of the World Trade Center out of concern for their privacy or feeling that they did not need special assistance. Those people said the realized their vulnerability after the bombing (FEMA, 2002).

50% of those who are employed part or full time say that no plans have been made to evacuate their workplace safely (FEMA, 2002).

Those with physical and mental disabilities may be resistant to being identified as “high risk” individuals out of fear of stigma or loss of autonomy.
mobility and decreased ability to react quickly to prevent An estimated 700 residential building fires involving individuals with physical disabilities are reported to U.S. fire departments each year and cause an estimated 160 deaths, 200 injuries, and $26 million in total loss.

• Cooking (22 percent) is the leading cause of residential building fires where a physical disability is reported as a human factor contributing to ignition.
• Sixty-five percent of residential building fires involving people with physical disabilities are limited to the object or room of origin.
• The cooking area or kitchen is the primary area of origin for residential building fires involving individuals with physical disabilities (38 percent).
• Residential building fires involving people with physical disabilities are more prevalent in January (12 percent) and December (10 percent).

Almost 2 million people in the US depend on a wheelchair for mobility; 5 million use a cane, crutch, or walker Federal Emergency Management Agency United States Fire Administration (1999).

• The elderly are more vulnerable in a fire than the general population due to a combination of factors including mental and physical frailties, greater use of medications, and elevated likelihood of living in a poverty situation.
• The elderly continue to experience a disproportionate share of fire deaths: In 2007, older adults (aged 65 and older) represented 13 percent of the U.S. population but suffered more than 30 percent of all fire deaths.

Focus groups found that being identified as “special” or “needy” was a concern for those with mobility impairments. A fire safety report found that individuals often felt that concern for fire safety can restrict their freedom of choice (eg. Being denied a bedroom on the upper floor of a college room dormitory) (National Center for a Barrier Free Environment, 1981). Individuals also worried about being marked for fire department recognition of their needs out of fear of falling victim to crime (FEMA, 1999).

**Limited resources (time, money) within the fire department:**

“We are a small department with limited resources: two full time paid persons, part time or 89% volunteers; lack of personnel and man power for program development” (C. Davis, personal communication, February 18, 2014).

“We would need program over three shifts to cover all staff.” (S. Smith, personal communication, February 19, 2014).

**Limited data to support need for extended first responder education.**

“Having an idea of the number of people with physical limitations would help us determine how much resources we need to devote to safety education for this specific group” (S. Smith, personal communication, February 19, 2014).
• The relative risk of individuals aged 65 and over dying in a fire is 2.6 times greater than that of the general population. The risk worsens as age increases. The risk for adult’s ages 65 to 74 is 1.9, but soars to 4.4 for those over the age of 84 (FEMA, 2007).

All interviews conducted with Washington County department personnel reflected program interest.

• *Cornelius Fire Department*: There are no specific programs in place for outreach to individuals with disabilities, just generic considerations for the elderly and young those with disabilities. There are no specific requirements for first responders in working with individuals with physical or mental disabilities. “We have the safety side of thing, you guys have knowledge of what’s best for the patients.” There is no core training on how to work with individual strengths and deficits (M. Johnson, personal communication, February 18, 2014).

• *Forest Grove Fire and Rescue*: Training requirements are not specific, nor are they limited. Our fire prevention division staff are all trained in advanced home safety awareness and also have years of experience dealing with people from all varieties of walks of life, beyond that we have no specific training programs in place. We are always looking for ways to make a better impact on the community and prevent a tragedy from happening in Forest Grove (D. Nemeyer, personal communication, February 24, 2014).

• *Gaston Rural Fire District*: “We don’t have a specific program, something like this would be advantageous to help identify and then develop programs. First responders only
know basic EMS protocols (cognitive impaired and physically impaired somewhat included), meet minimum requirements for rescue during fire situations. I see a benefit to having a professionally led seminar focusing on specific strategies in working with those with physical and mental disabilities. If you have that expertise that would be of great benefit because we would like to treat and assist community members as best we can. How can we best serve them?” (C. Davis, personal communication, February 18, 2014).

- *Hillsboro Fire Department:* “We don’t specifically target those with disabilities. Upon request, we provide fire prevention and safety education with those who have hearing impairments. We have not specifically reached out to any other disability class” (S. Smith, personal communication, February 19, 2014).

The stated objectives of emergency first responders support the implementation of an occupational therapist led identification of individuals at higher risk for fire (Bontemps, n.d.).

According *Part Four: Identifying Root Factors of Risk and Populations at Greatest Risk* of the Executive Analysis of Community Risk Reduction (EACRR), executive fire officers must be able to identify, understand, and address the social, cultural, economic, and environmental factors that affect fire risk at the local level (United States Fire Administration, 2010).

*Unit 1: The Executive Fire Officer as a Community Risk-Reduction Strategist-Enabling Objective 4* identifies the
importance of analyzing unaddressed risks within the community, *Enabling Objective 6* talks about the importance of identifying potential challenges associated with reducing such unaddressed risks.

*Unit 2: Assessing Community Risk-Enabling Objective 1* addresses the need for fire service organizations to continuously assess hazards and causal factors within their community. *Unit 5: Organizational and Community Politics* states that executive officers must employ effective strategies to initiate policy change regarding a pertinent community risk reduction issue (National Fire Academy, 2009).

The 2009 *United States Fire Administration’s (UFSA) Goals and Objectives. Objective 1.1* encourages that local entities seek out and adopt effective risk reduction and prevention strategies. *Objective 2.2* focuses on expanding the use of effective data collection and analysis (United States Fire Administration, 2009).

**Research conducted on the effective delivery of national fire safety programs shows that fire service does not adequately advocate for or support fire safety education for people with disabilities.**

- 86% of fire departments provide fire safety education to the general population, but less than 29% provide fire safety education to people with disabilities. Studies have found that traditional fire and life safety messages are designed with able bodied people in mind resulting in neglect of the safety needs of people with disability through main stream fire and life safety education (Bontemps, n.d.).
References


Bontemps, J. (n.d.). Establishing a fire safety profile of independent living adults who are developmentally disabled. Bend Fire and Rescue, Bend, Oregon.


Establishing a Direction for the Fire and Health Liaison Project
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Pacific University, School of Occupational Therapy, Hillsboro, Oregon

Purpose
The primary aim of the fire and health liaison project is to establish communication between health care providers and emergency responders to promote safety for those with physical and cognitive disabilities.

Project Description
Area: Washington County, Oregon
Target population: Community members with physical and cognitive disabilities
Identified stakeholders: Emergency first responders, occupational therapists
Goals: Establish program direction
- Conduct needs assessment
- Make initial contacts
- Create student resource
Strategies: Literature search, stakeholder interviews, community meeting, SWOT analysis
Outcomes: Introduce project to stakeholders, identify need areas, create interactive website, gathered resources, analysis of findings
End Product
http://fireliaison.wikispaces.com

Summary of Findings
Opportunities: Supports stakeholder mission and interests
Barriers: Lack of resources, communication, and understanding of population needs

Why occupational therapy?
Occupational therapists are uniquely qualified to promote safety and independence of those at increased fire risk through the evaluation of their wants, needs, occupational risks, performance patterns, and skills.

By assessing the match between the person, environment, and occupation, OTs work with people to identify occupational barriers and solutions.

Identified Need Areas
Target Population: Fire risk, safety, inadequate services, poor awareness
Emergency responders: Education, supportive data, data collection and referral methods
Occupational therapists: Education, communication with first responders, assessment methods, awareness

Future of Project
Methods for: Data collection, identification, assessment, referral, intervention, funding, increased communication
Education for: Population, first responders, occupational therapists