

Domestic Violence, Intimate Partner Violence, and Elder Abuse: Know the Basics



Course Author(s): Sean Burke, JD CE Credits: 1 hour Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students Date Course Online: 10/23/2019 Last Revision Date: N/A Course Expiration Date: 04/22/2023 Cost: Free Method: Self-instructional AGD Subject Code(s): 156

Online Course: <u>www.dentalcare.com/en-us/professional-education/ce-courses/ce593</u>

Disclaimer: Participants must always be aware of the hazards of using limited knowledge in integrating new techniques or procedures into their practice. Only sound evidence-based dentistry should be used in patient therapy.

Conflict of Interest Disclosure Statement

• The author reports no conflicts of interest associated with this course.

Introduction – Intimate Partner Violence

Domestic Violence, Intimate Partner Violence, and Elder Abuse: Know the Basics will provide information on Intimate Partner Violence (IPV) and Elder Maltreatment (EM), describe victims and perpetrators, and outline the dental professionals' responsibilities to recognize, report, treat, and prevent such cases.

Dental Students: This is part 1 of a 2-part continuing education series. "<u>Child Maltreatment: The Role</u> <u>of a Dental Professional</u>" is the second course. For students taking these courses, both courses should be completed. As healthcare providers, you are obligated to understand these topics and report, as appropriate.

Course Contents

- Overview
- Learning Objectives
- Definition of Intimate Partner Violence
- Prevalence and Incidence of Intimate Partner Violence
- Signs of Intimate Partner Violence for Dental Professionals
- Role of Dental Professionals in Intimate Partner Violence
- Trauma Informed Care
- Responsibilities and Intervention Techniques for Dental Professionals
- Legal Responsibilities
- Definition of Elder Maltreatment
- Elder Maltreatment as a Serious Problem
- Different Types of Elder Maltreatment and Accompanying Signs Dental Professionals Should Look For
- Risk Factors of Victims and Perpetrators
- Interventions and Reporting Elder
 Maltreatment
- Course Test
- References
- About the Author

Overview

Intimate Partner Violence (IPV) and Elder Maltreatment (EM) are widespread problems that affect people from all cultural and socioeconomic segments of society. Estimates suggest nearly 10 million people every year are victims of domestic violence.¹ Nearly 1 in 4 women and 1 in 9 men experience some type of severe intimate partner violence. On a typical day, domestic violence hotlines throughout the county receive nearly 20,000 calls.²

For older adults (over age 60), nearly 1 in 10 will experience elder abuse, neglect, or financial exploitation. That number moves to 1 in 5 if the individual has cognitive deficits.³

While all health professionals are legally mandated to report suspected cases of child maltreatment to the proper authorities, mandatory reporting of cases of domestic violence including IPV and EM may vary by state. The best practice is to understand one's local reporting laws, as failing to report when mandated could lead to a variety of consequences, including possible loss of license.⁴ Unfortunately, dental professionals as a group have been less inclined to report domestic abuse, especially as compared to other medical professionals.⁵ This must change, especially because dental professionals are in a unique position to recognize head and neck injuries that are common results of IPV and EM.The dental office may be the most consistent place a victim receives health services and a dental professional is often the most trusted health professional in a victim's life.⁶ Dental professionals attuned to issues of domestic violence should be able to recognize and identify many of the warning signs of IPV and EM. This course will provide information about IPV and EM; describe victims and perpetrators; and outline dentists' responsibilities to recognize, report, treat, and even help prevent such cases.

In this course, the term intimate partner violence will be used to describe abuse that is also commonly referred to as domestic violence.

Severe intimate partner violence is specifically defined in the study as violence that includes significant physical contact such as being hit with something hard, beaten, or slammed against something.

Learning Objectives

Upon completion of this course, the dental professional should be able to:

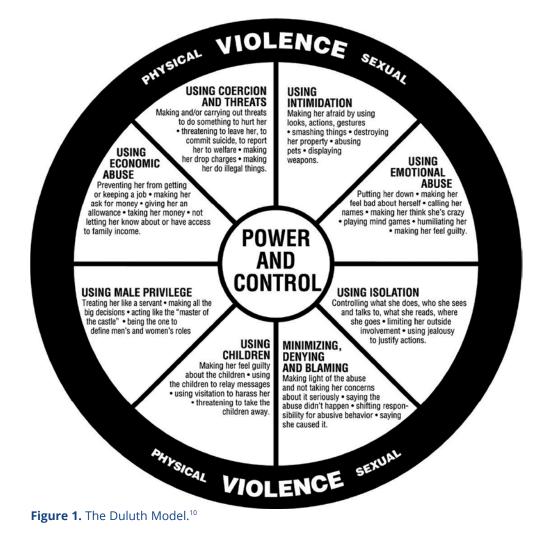
- List the types, signs, symptoms, and warning signs of IPV and EM.
- Better understand the dental professional's obligations to identify and report IPV and EM.
- Describe the physical and behavioral characteristics of the victims.
- Identify various intervention and prevention techniques, including measures that dental professionals can take to prevent further instances of the condition.
- Understand the complexity and breadth of these problems and how they affect victims, families, and entire communities.

Definition of Intimate Partner Violence

Intimate partner violence includes "willful intimidation, physical assault, battery, sexual assault, and/or other abusive behavior as part of a systematic pattern of power and control."⁷ It occurs when such abuse is "perpetrated by one intimate partner against another" and is marked by one "partner's consistent efforts to maintain power and control over the other."⁷

This control may manifest in a variety of forms, including economic and emotional abuse.⁷ Other specific forms of intimate partner violence may include homicide, physical and verbal assault, threats of violence, kidnapping, harassment, criminal trespassing, or stalking. Stalking "generally refers to harassing or threatening behavior that an individual engages in repeatedly, such as sending the victim unwanted presents, following or laying in wait for the victim, damaging or threatening to damage the victim's property, appearing at a victim's home or place of business, defaming the victim's character or spreading rumors, or harassing the victim via the Internet by posting personal information."⁸ Many advocates recognize that stalking behaviors may "[signal] particular risk, as it has been linked with repeat violence (including lethal violence), increased psychological distress and diminished physical and mental health."⁹

The Domestic Abuse Intervention Programs' Power and Control Wheel¹⁰ is a common framework for understanding the dynamics between abusers and victims of intimate partner violence. It is a common tool in counseling and advocacy groups to help women identify tactics their partners have used against them. The power and control



Crest[®] + Oral-B[®] at dentalcare.com

wheel highlights various aspects to IPV, some of which health care professionals may not have considered to be a part of abusive relationships. An abusive partner may exhibit some of these patterns of behaviors but not others in order to maintain the power and control in the relationship.¹⁰

Prevalence and Incidence of Intimate Partner Violence¹¹

- About 1.3 million women and 835,000 men are physically assaulted by an intimate partner annually in the United States.
- Women are significantly more likely than men to be injured during an intimate partner assault. On average, more than four women a day are murdered by their husbands or boyfriends in the US.¹²
- Between 40–50% of all murders of women in the United States are perpetrated by an intimate partner. In nearly 70–80% of intimate partner homicides, no matter which partner was killed, the man physically abused the woman before the murder.
- The lifetime prevalence of all intimate partner victimization is 25% for women and 7.6% for men.
- Each year, upwards of 324,000 pregnant women in the country are battered by the intimate partners, making IPV more common that gestational diabetes or preeclampsia – conditions in which women are routinely screened.¹³
- Patients who are screened by a medical/ dental professional are 2 times more likely to disclose abuse and they are 4 times more likely to seek help.

Signs of Intimate Partner Violence for Dental Professionals¹⁴

Signs of IPV may be observable physical wounds or other marks. Almost 75% of IPV victims have injuries to their head and neck regions, the area of specialty for dental professionals.⁶ They could also include certain types of behavior or behavioral changes. Specific signs include:

 Public and private demeaning actions by intimate partner. The partner may be reluctant to leave her or him alone during the appointment, is domineering, or answers all questions for a patient who would otherwise be capable of answering for him or herself.

- Injuries to the neck, head, and face that may be in different stages of healing including:
- intraoral bruising, patterned bruising around the neck due to strangulation;
- abscessed, avulsed, or non-vital teeth;
- lacerations, burns, fractures to teeth, mandible, maxilla, or nose;
- torn frenum, complaints of headaches.
- Various types of behavior changes, either observed or reported, including:
 - chronic pain or inability to sleep,
 - personality changes,
 - frightened behavior when with the opposite sex,
 - afraid to return home,
 - report of injuries caused by intimate partner,
 - drastic behavioral changes in presence of intimate partner,
 - victim appears embarrassed, vague, anxious, or depressed,
 - low self-esteem,
 - blaming self or others for everything,
 - changes in the patient's routine including patients who used to come in for regular check-ups and who suddenly stops.
 - exaggerated startle response
 - spontaneous tears
 - dissociation from eye contact (or a sudden fading out of the patient's attention/ responses to cues)
 - inability of patient to talk clearly due to breathing patterns or panic
 - reluctance or insecurity in answer questions posed by the dental professional

Role of Dental Professionals in Intimate Partner Violence⁵

A majority of IPV cases include injuries and trauma to the neck and head. Dental professionals are in a unique position to encounter and examine such injuries.

Dental professionals are the least likely of all clinicians to suspect and intervene in IPV cases. Dental professionals report a variety of barriers to intervention including:

limited knowledge and training about IPV issues,

- lack of practical experience on how to intervene,
- misconceptions about the nature of intervention,
- fear of being sued (which when done with good intentions and "reason to believe" is not an issue),
- lack of information on resources for reporting,
- presence of others in the examination room (including the patient's partner or children),
- concerns about offending the patient, and
- embarrassment about bringing up the topic.

Trauma Informed Care

Landmark research known as the Adverse Childhood Experiences (ACE) study has shown that exposure to abuse, neglect, discrimination, violence, and other adverse experiences increase a person's lifelong potential for serious health problems. As health care providers grow aware of trauma's impact and implications of ACE studies, they are realizing the value of trauma-informed approaches to care. Trauma-informed care means taking into account a patient's life experiences so as to deliver care that may improve patient engagement, treatment adherence, and health outcomes. This approach is also designed to improve outcomes and health for providers themselves.15

Developing trauma-informed care skills can be an important way to better recognize and respond to patients who may be victims of violence, including IPV and EM.¹⁵ For a survivor of sexual assault or IPV, the dental office can be a really scary place and may trigger negative responses related to the underlying experiences of abuse. Dental professionals should be aware of these possible triggers and develop techniques to incorporate into their daily practice (as described in the next section describing the AVDR method).¹⁶

Responsibilities and Intervention Techniques for Dental Professionals

Dental professionals must understand their obligations to report when they suspect someone may be a victim of IPV or EM. One proven approach to having this conversation is known as "ask, validate, document, and refer/report if required by law" or AVDR.¹⁷ The AVDR model provides a framework for dental professionals responding to any kind of family violence. It also helps ensure that victims are offered resources that may be needed as well as fulfill a dental professional's legal and ethical obligations.

Before even engaging in the ADVR method, there are some baseline steps dental professionals should take to be prepared to appropriately respond to a patient reporting or showing signs of abuse. Dental professionals should establish and maintain a professional therapeutic relationship with the patient. They should also become familiar with the signs of IPV and EM and the state reporting requirements for each type of abuse. The ADVR method includes:

- **ASK:** This includes not only actively asking questions, but also listening closely and observing suspicious evidence that can be ascertained during a dental patient's office visit (or anyone accompanying them). It helps to be free of distractions and sit in a position that is comfortable for the patient. Ideally, it helps to ask these questions when the patient is alone with the dental professional so that they can be asked in a non-threatening and non-judgmental way. If the patient asks why such questions are necessary, it may help to explain that they are routine screening questions that may not appear to have a relationship with the mouth, but in actuality, they have a significant relationship with oral health. Personal safety and well-being are some of those important things.
- VALIDATE: Respond to patient's feelings and take time to acknowledge that disclosure is scary. Assure the patient that he or she is doing the right thing in telling you. Take anything the patient reports seriously and assure patients of confidentiality to the extent allowed under the state's mandatory reporting laws. It is also important to remember that dental professionals without counseling credentials must avoid offering advice or telling the patient what to do. There are many strategies that you can practice in role-playing activities to become comfortable validating patient reports. Common responses could be:
 - "I am sorry you have been hurt."

- "I am concerned about you and your safety."
- "There are resources out there that can help you."
- **DOCUMENT:** Record or document any evidence that may be helpful, including physical evidence and any verbal comments. If at all possible, it is recommended to use direct quotes from the patient when documenting the conversation. If you report the abusive situation due to the mandatory reporting laws in your state, document a case number into your notes if the state provides one. Consider asking the patient if you can photograph visible injuries, if possible, or make sure to describe orofacial injuries in detail. It is helpful to hold something up to document the extent of the injuries (e.g., if intraoral lesions, place the probe beside it to document how big the lesion is). Finally, use neutral language in your documentation. Instead of "alleges." use the word "reports." Words that have a negative connotation can be used against the victim by the defense counsel (alleges, refuses, etc). This detailed information could be very beneficial information if the victim decides to pursue any legal action against the perpetrator.
- **REFER AND REPORT:** Treat injuries within the expertise of the office and refer to other healthcare providers for other injuries. Provide patients with options and resources for next steps, including referrals to domestic abuse advocacy organizations. Consider having small, easy to conceal cards already available for patients that contain information for local resources. Developing relationships with local domestic abuse programs can help professionals in a dental office make the referral process even more effective and provide dental professionals with ongoing training. Document the referral information given to the patient and file mandatory reports. Schedule a follow-up visit.¹⁴

Legal Responsibilities

Each state generally has specific mandatory maltreatment reporting laws for children and for elders (sometimes categorized as vulnerable adults). General domestic violence reporting laws, including IPV, however, are different. These laws are not adopted in all states and when applicable, "are not limited to a specific age group, but pertain to all individuals to whom specific health care professionals provide treatment or medical care."¹⁷ Depending on the state, a dental professional may have the legal responsibility to report suspected IPV no matter who the victim is.

To learn how to report suspected IPV, contact your state's Department of Human Services or your city or county's Adult Protection Services.¹⁸

Definition of Elder Maltreatment

A uniform definition of EM does not exist, as states take varying approaches to define it in law. Generally, however, it is a knowing, intentional, or negligent act by a caregiver or any other person that causes harm or serious risk of harm to an older adult or vulnerable adult. This includes physical and emotional abuse, neglect, or financial exploitation. Usually the perpetrator is in a position of trust to the victim, but not necessarily in all circumstances.¹⁹

Elder Maltreatment as a Serious Problem

- Thousands of elderly are abused, neglected, or exploited each year, although exact numbers remain unknown in part because of a lack of reporting. For every reported case of elder abuse, authorities estimate that approximately 24 cases go unreported.²⁰
- Many elderly, especially those who depend on others to help them meet their basic needs, face maltreatment by spouses, family members, personal acquaintances, professionals in positions of trust, or opportunistic strangers who prey on the vulnerable.²¹
- Nearly 1 in 10 older adults will experience some form of abuse, neglect, or financial exploitation in their lifetime. Older adults experiencing abuse have a 300% higher risk of death compared to those who have not been mistreated.³

Different Types of Elder Maltreatment and Accompanying Signs Dental Professionals Should Look For¹⁹

In general, an elder may exhibit some signs that could signal any type of maltreatment may be

occurring. Consider changes in the behavior and affect of the patient, including:

- sudden change in behavior;
- withdrawn or passive behavior;
- depression, agitation or anxiety; or
- a self-report of being abused, confined or isolated, or having someone inappropriately controlling their finances.

Note that these changes can also be associated with other medical issues as well, so it is essential to take and have good comprehensive medical history.

- **Physical maltreatment** inflicting, or threatening to inflict, physical pain or injury on a vulnerable elder, or depriving the elder of a basic need. Signs may include:
 - bruises; lip trauma; bone fractures; broken eyeglasses or frames; fractured, loose, or unexplained missing teeth; unexplained bruises, pressure marks, bruising of eye(s), welts, lacerations, cuts, or burns.
- Sexual maltreatment inflicting nonconsensual sexual contact of any kind.
- Emotional or psychological maltreatment – inflicting mental or emotional anguish or distress on an elder person through verbal or nonverbal acts. Signs may include:
 - caregiver's refusal to allow visitors to see the elder alone,
 - consistent degrading comments or threats (including the threat of moving the elder to a nursing home or other facility), or
 - depriving the elder from going into the community.
- Financial or material exploitation illegal taking, misuse, or concealment of funds, property, or assets of a vulnerable elder.
 Signs may include:
 - report of unexpected withdrawals from financial accounts; abrupt changes in the elder's financial documents such as power of attorney forms, healthcare directives, trusts, or a will; and unpaid dental bills (especially if finances are controlled by a fiduciary such as a power of attorney or conservator).
- **Neglect** refusal or failure by those responsible to provide food, shelter, health care, or protection to a vulnerable elder.

Signs may include:

- ill-fitting dentures, lack of dental care, and poor dental or personal hygiene; signs of being restrained; report of confinement or isolation; failure to appear at scheduled appointments; and delays in seeking care.
- Self-neglect the behavior of an elderly person that threatens his/her own health or safety. Self-neglect is different from other types of neglect (i.e. caretaker neglect) because it is not attributable to another person.
- Abandonment the desertion of a vulnerable elder by anyone who has assumed the responsibility for care or custody of that person.

Risk Factors of Victims and Perpetrators

Knowing the basic risk factors about who is likely to be maltreated can help dental professionals better recognize possible signs of abuse, neglect, or exploitation. Social isolation, living arrangement (living with a caregiver), and cognitive issues such as dementia, are all understood to be risk factors.²²

Understanding who perpetrates elder abuse is also helpful to better understand the issue and possibly identify warning signs in patients. Such risk factors include diagnosis of mental illness or chemical dependency, poor or inadequate preparation or training for caregiving responsibilities, inadequate coping skills, exposure to abuse as a child, high financial and emotional dependence upon a vulnerable elder, and lack of social support.²¹ Many times, older adults depend on the perpetrator for caregiving or other needs, complicating common societal interventions such as those offered through the criminal justice system.

Interventions and Reporting Elder Maltreatment

While research on EM is still limited, it is widely understood that many older adults who are maltreated experience more than one type of abuse. The combination of emotional abuse and financial exploitation, for example, is commonly experienced among abused elders. That is why it is important to understand all types of maltreatment.²³ In addition to the trauma-informed techniques addressed earlier, dental professionals can ask the patient three direct questions if they suspect signs of elder maltreatment are present:

- In many states, adult protection or human services officials may be the initial investigators on elder maltreatment cases. Make sure to notify proper authorities, which is often the local adult protection services.²⁵
- Is anyone taking your money?
- Are you afraid of anyone?
- Is anyone hurting you?²⁴

Course Test Preview

To receive Continuing Education credit for this course, you must complete the online test. Please go to: <u>www.dentalcare.com/en-us/professional-education/ce-courses/ce593/test</u>

1. Which of the following is/are potential indicator(s) that a dental professional may notice from a patient enduring an abusive relationship?

- A. Frequent cancelations of dental appointments
- B. Partner insists on being in the room with patient and dental professional during treatment
- C. Patient is uncomfortable with the head and neck exam
- D. Patient exhibits anxiety type of behaviors, such as nail biting, fidgeting, and hesitation in their answers
- E. All of the above are potential indicators.

2. As part of the AVDR method, a dental professional should ______.

- A. listen closely and attentively to the patient
- B. consider using informed trauma techniques
- C. document the conversation with the patient
- D. report the incident consistent with the laws of his or her state
- E. All of the above.
- 3. The "Validate" part of the AVDR model is a way that we can support and encourage the victim of interpersonal violence. The Validate part of the AVDR model also encourages dental professionals to counsel the patient regarding their abusive situation and advise them to leave their relationship.
 - A. Both statements are true.
 - B. Both statements are false.
 - C. First statement is true, second statement is false.
 - D. First statement is false, second statement is true.

4. Dental professionals are the most likely of all health care professionals to intervene in cases of suspected IVP.

- A. True
- B. False
- 5. IPV can range in type and severity, but perpetrators nearly always ______ the victim.
 - A. commit physical abuse against
 - B. exert power and control over
 - C. commit emotional abuse against
 - D. sexually assault
 - E. use financial manipulation over
- 6. The general definition of EM is: any knowing, intentional, or negligent act by a caregiver or any other person that causes harm or serious risk of harm to an older adult.
 - A. True
 - B. False

7. Many older adults may experience ______, although dental professionals ______ consider it a risk factor of maltreatment.

- A. social isolation, should not
- B. cognitive decline, should
- C. adverse childhood experiences, should not
- D. cognitive decline, should not
- E. C and D

8. EM includes____

- A. physical abuse
- B. sexual abuse
- C. emotional/physical abuse
- D. financial exploitation
- E. neglect
- F. abandonment
- G. All of the above.

9. Which of the following, by itself, would not raise concerns about possible EM?

- A. Lip trauma, fractured, loose, or missing teeth
- B. Patient's dentures are ill fitting and dental (and personal) hygiene is poor
- C. Broken eyeglasses, hearing aids, or other personal items
- D. Patient is well-groomed
- E. Patient reports she is missing money

10. Which of the following is true?

- A. EM victims are almost always low income.
- B. EM victims may often experience more than one form of maltreatment.
- C. EM victims will almost always tell dental professionals without prompting that they are being abuse.
- D. EM perpetrators are usually strangers.
- E. EM is a serious, though not widespread, problem.

References

- 1. Black MC, Basile KC, Breiding MJ, et al. The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. 2011 Nov. Accessed October 11, 2019.
- 2. National Network to End Domestic Violence. Domestic violence counts national summary. 2016. Accessed October 11, 2019.
- 3. National Council on Aging. What is Elder Abuse? Accessed October 11, 2019.
- 4. National District Attorneys Association. Mandatory Reporting of Domestic Violence and Sexual Assault Statutes. 2010. Accessed October 11, 2019.
- 5. Littel K. Family Violence: An intervention Model for Dental Professionals. U.S. Department of Justice. Office of Justice Programs. Office for Victims of Crime. 2004 Dec. Accessed October 11, 2019.
- 6. Halpern LR. Violence/Abuse: Role of Dental Education in Identification/Intervention. Accessed October 11, 2019.
- 7. National Coalition Against Domestic Violence. Learn More. Accessed October 11, 2019.
- 8. National Institute of Justice. Overview of Intimate Partner Violence. Accessed October 11, 2019.
- 9. Botuck S, Berretty P, Cho S, et al. Understanding Intimate Partner Stalking: Implications For Offering Victim Services. U.S. Department of Justice. 2009 May 27. Accessed October 11, 2019.
- 10. Domestic Abuse Intervention Programs. FAQs About the Wheels. Accessed October 11, 2019.
- 11. National Institute of Justice. How Widespread Is Intimate Partner Violence? Accessed October 11, 2019.
- 12. Catalano S, Smith E, Snyder H, et al. Female Victims of Violence. U.S. Department of Justice. 2009 Oct. Accessed October 11, 2019.
- 13. Gazmararian JA, Petersen R, Spitz AM, et al. Violence and reproductive health: current knowledge and future research directions. Matern Child Health J. 2000 Jun;4(2):79-84. doi: 10.1023/A:1009514119423.
- 14. Jailwala M, Timmons JB, Ganda K. Recognize the Signs of Domestic Violence. Decisions in Dentistry. 2016 Feb 01. Accessed October 11, 2019.
- 15. Menschner C, Maul A. Key Ingredients for Successful Trauma-Informed Care Implementation. Center for Health Care Settings. 2016 Apr 06. Accessed October 11, 2019.
- 16. University of Kentucky. School of Dentistry. Intimate Partner Violence, Part 1. Accessed October 11, 2019.
- 17. Compendium of State Statutes and Policies on Domestic Violence and Health Care. Family Violence Prevention Fund. 2010; p.2 Accessed October 11, 2019.
- 18. U.S. Department of Health and Human Services. HealthFinder. State Health & Human Services. Accessed October 11, 2019.
- 19. CDC. Violence Prevention. Elder Abuse: Definitions. Accessed October 11, 2019.
- 20. National Center on Elder Abuse. What is Known about the Incidence and Prevalence of Elder Abuse in the Community Setting? Accessed October 11, 2019.
- 21. National Center on Elder Abuse. Who are the Perpetrators? Accessed October 11, 2019.
- 22. Bonnie RJ, Wallace RB. Elder Mistreatment : Abuse, Neglect, and Exploitation in an Aging America. National Academies Press. Washington, DC. 2003.
- 23. Quinn K, Heisler C, Ramsey-Klawsnik H. Polyvictimization in Later Life. National Committee for the Prevention of Elder Abuse. 2014 Nov 5. Accessed October 11, 2019.
- 24. Minnesota Elder Justice Center. Abused, Exploited, Alone. Dr. Laura Mosqueda. 18:24. 2014 Nov 11. Accessed October 11, 2019.
- 25. National Center on Elder Abuse. State Resources. Accessed October 11, 2019.

Additional Resources

• No Additional Resources Available.

About the Author

Sean Burke, JD



Sean Burke is an attorney at Mid-Minnesota Legal Aid and the Disability Law Center where he advocates for persons with disabilities and vulnerable adults. He is also a board member of the Minnesota Elder Justice Center, an organization committed to prevention, protection, and education to halt the abuse of elders and vulnerable adults. He is a graduate of the University of Minnesota Law School.

Email: sean.burke@elderjusticemn.org

Acknowledgement

Sean Burke thanks his colleagues at the Minnesota Elder Justice Center and Dr. Amos Deinard and Ms. Marniasha Ginsberg for their work on previous versions of a similar course. He also thanks Ms. Jennifer Rudy for helping review the course and making several significant contributions.