A Case for Gun Violence Prevention in Medical and Public Health Curriculum

Shaun Hamilton
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A Case for Gun Violence Prevention in Medical and Public Health Curriculum

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Abstract

Gun violence profoundly impacts the landscape of violence in the United States. The costs of gun injuries are, estimated to be $100 billion each year in the United States. Although many physicians and health professionals agree that they have a role to play in the prevention of violence (American Academy of Pediatrics [AAP], 2002), there is a distinct disconnect between perceived responsibility and actual practice (Sidelinger, Guerrero, Rodriguez-Frau, & Mirabal-Colon, 2005). Physicians inherently have a role to play in the prevention of violence. The nature of their occupation places them in the “process” of violence in the form of treatment. It is my contention that a proper gun violence-prevention educational curriculum for medical and aspiring public health professional students can help combat multiple forms of violence, and will help strengthen the infrastructure of public health. In following pages of this manuscript, I have proposed violence prevention module that can be adapted to address multiple types violence and specifically gun violence. This module can be implemented into a degree curriculum to educate medical and public health students. Wright State University Boonshoft School of Medicine’s (WSUBSOM) Medical and Master of Public Health’s curriculums were utilized as templates and examples of how and where a gun violence module can be implemented.

Keywords: youth, firearms, education, assaults, graduate education
A Case for Gun Violence Prevention in Medical and Public Health Curriculum

Violence is a broad-based public health problem that has many facets, dimensions and layers. Whether it is youth violence, intimate partner violence (IPV) or gun violence, violence in all forms continues to be a public health epidemic. Societal costs of IPV, rape, physical assault, and stalking exceed $5.8 billion each year; $4.1 billion of the $5.8 billion are attributed to direct medical and mental health care services (National Center for Injury Prevention and Control, 2003).

In 2010 violence was the second leading cause of death in among youth in the United States (US) between the ages of 10 and 24 (Anderson, 2001). Gun violence impacts violent deaths at a disproportionate rate among certain age groups when compared to other violent deaths. Of all the violent deaths among 10-24 year-olds, an individual’s prime years, 84% were killed with a firearm (Centers for Disease Control and Prevention [CDC], 2011a). These statistics and trends have not gone unnoticed by the US government. Healthy People 2020 (2011) calls for a 10% reduction in the following categories related to violence:

- Reduce homicide incidence from 6.1 homicides per 100,000 to 5.5 homicides per 100,000
- Reduce firearm related deaths from 10.2 firearm-related deaths per 100,000 population to 9.2 deaths per 100,000 population
- Reduce physical assaults from 16.3 physical assaults per 1,000 population aged 12 years and older to 14.7 physical assaults per 1,000 population (Healthy People 2020, 2011)

These data from the CDC, and harm reduction recommendations from Healthy People 2020 clearly indicate that violence, in all forms, is a pervasive public health issue in the US.
Gun violence profoundly impacts the landscape of violence in the US. The costs of gun injuries are, estimated to be $100 billion each year in the US (Cook & Ludwig, 2000). During 2006-2007 there were a total of 25,423 firearm homicides and 34,235 firearm suicides among US residents (CDC, 2007). These national totals include 4,166 firearm homicides and 1,446 firearm suicides among individuals age 10-19 years (Kegler, Annest, & Kresnow, 2011).

Despite these statistics, murders overall in the US decreased steadily since 2006, from 15,087 to 12,996. Firearms murders, which made up 67 percent of all murders in the US in 2010, have followed this trend and decreased by 14 percent (Federal Bureau of Investigations, 2010). Although gun violence has decreased for several years, it continues to remain a public health concern that requires unique strategies, with many questions to be answered. Chief among those questions that remain is how can we, and how do we, public health community and health professionals, prevent this epidemic? But more relevant to this project is the question of who should be the prevention champions? It is my contention that public health and the medical communities be educated on gun violence to help combat this well documented public health concern.

**Purpose Statement**

The purpose of this project is to provide an evidence-based gun violence curriculum module for medical and public health professional students. Formalizing the education of this public health concern will ensure that physicians and public health professionals will attain specific core competencies geared to the comprehension and prevention of various types of violence, while highlighting gun violence. Physicians and public health professionals involuntarily or voluntarily play a role in the violence process. Adequate education on this public health topic can enhance the knowledge base of this population of professionals and can
lead to desired outcomes of violence reduction recommended by Healthy People 2020 (2011, p. 2).

**Literature Review**

Gun violence has multiple causes and therefore requires a number of prevention strategies. Causation can stem from environment, socioeconomic status, and gun laws within region, exposure to violence, and many other causes (Songer, 2009; Drucker, 2011; CDC, 2011a). Understanding that there is no one solution to the prevention of gun violence provides practitioners a broad lens to view the possible interventions that can be considered. With this broad lens, a variety of methods, prevention champions, and resources can be utilized to curtail this public health problem. Unlike chronic public health concerns, firearm injury requires an immediate response due to the potential small window for effective medical intervention. With this reality in mind, treating physicians are often exposed to the ramifications of gun violence and stand in an extraordinary position of medical responsibility. Physicians inherently play a role in the gun violence process via their treatment of the patient. Treatment alone, without relevant education on violence, leaves the physician treating violence patients without a contextual foundation, without the knowledge to reduce the risk of future violence, and without the knowledge to reduce the risk of future or continued violence. Public health professionals voluntarily play a role in gun violence prevention based on the chosen field of study and the career selection in public health. Whether involuntary or voluntary both need a fundamental understanding of violence prevention. All aspects of violence prevention and intervention are relevant to the specific case of gun violence. I therefore review the broader literature on violence and then apply it to the specific case of gun violence.
Fundamentals of Violence Prevention

Wright (2005) provides an excellent summary of the public health approach to youth violence prevention. Among those approaches, he identifies the following: (1) an acknowledgment of the etiologic complexity of violence and the need to incorporate comprehensive strategies into intervention thinking, (2) an integral infusion of a culturally appropriate community context early and consistently as a central component of prevention efforts, and (3) an expectation of a discrete set of core competencies that any health or public health professional should possess regardless of discipline (Wright, 2005, p. 2). These competencies that Wright suggest, should be addressed through fundamental learning and/or training that will allow physicians and health professionals to engage patients and the population at large with a relevant foundation of knowledge related to violence and its etiology.

Complexity of violence risk factors.

An acknowledgment of the complexity of violence has to be a central component to the prevention of violence. The multifactorial nature of violence requires that it be seen as a unique public health problem that deserves unique strategies for its prevention, as Wright (2005) suggests. Various combinations of risk factors for violence can lead to the manifestation of violence such as individual, family, peer/social, and community factors for youth violence (CDC, 2011a). Each of these constructs consist of several risk increasing sub-factors, ranging from an individual’s IQ, authoritarian childrearing attitudes, social rejection of peers, and a high level of transiency in a community, just to name a few (full list in Appendix A) (Lipsey & Derzon, 1998). There are fewer protective factors associated with violence. CDC (2011b) lists 14 protective factors of violence in comparison to the 30 risk factors. Violence protective factors have fewer constructs such as individual/family and peer/social constructs. Protective factors
against violence include religiosity, commitment to school and involvement in social activity to
name a few (full list in Appendix B).

**Individual biological/psychological and behavioral characteristics.**

The multitude of individual risk factors for violence varies from a wide range of paradigms. Mercy, Butchart, Farrington, and Cerdá (2002) argue that biological, psychological and behavioral characteristics contribute to the pool of individual violence risk factors. He contends that biological factors could result from injuries and complications associated with pregnancy and delivery. Another study also suggests that neurological damage attributes to such injury and birth complications might lead to violence (Kandel & Mednick, 1991). Kandel and Mednick’s research showed that complications in childbirth were a predictor for arrests for violence up to the age of 22 years. Similarly, infant low heart rate (predominantly in males) has been associated with sensation seeking and risk-taking, which are characteristics that may predispose boys to aggression/violence in an attempt to increase stimulation and arousal levels (Farrington, 1997). Mercy et al. (2002) states that hyperactivity, poor behavioral control, impulsiveness and attention problems are psychological and behavioral factors that may predict youth violence.

**Family construct violence risk factors.**

Parental conflict and exposure to violence in early childhood has been strongly linked to violence in adolescence and adulthood. McCord (1979) found that harsh physical disciplinary tactics on children and lack of or poor supervision of children by parents were strong predictors of violence during adolescence and adulthood. She reported that poor parental supervision or harsh physical discipline at the age of 10 years old significantly increased the risk of later convictions for violence up to 45 years of age in males. A similar study tracked 900 children in New York City, NY with similar results. Eron, Huesmann, and Zelli (1991) found that physical
or harsh punishment by children’s parents at the age of 8 years predicted arrests for violence up to the age of 30 years. For boys it also predicted the severity of punishment they dispensed to their own children and their participation of spouse abuse.

Additional parental conflicts manifest in the form of poor attachment between parent and child and/or relationship strain between parent and child. This parent conflict has been linked to violence in adolescence and adulthood (Farrington, 1998). Other risk factors in the family construct include families with a large number of children and mothers who had their first child at an early age (Brennan, 1989).

**Peer/social construct violence risk factors.**

Peer interaction occurs naturally during adolescent age as does peer bonding. However, delinquency in itself functions as a conduit to peer bonding. Elliot (1996) concluded that delinquency caused peer bonding and, at the same time, that bonding with delinquent peers caused delinquency. Adolescent peer influence can have a negative impact that can contribute to violence risk factors. Specifically, having delinquent friends (individuals who have been arrested and/or encountered fines for deviant behavior) is associated with violence in young people (Thornberry, Huizinga, & Loeber, 1995). While participation or peer bonding with delinquent individuals is a risk factor for violence, the mere presence of gangs, guns, and drugs in a locality increases the likelihood of violence. For example, Hawkins, Farrington, and Catalano (1998) illustrated that the presence of gangs, guns, and drugs in an United States neighborhood accounted for the more than doubling juvenile arrest rate for homicide between 1984 and 1993 (from 5.4 per 100 000 to 14.5 per 100 000).
Community/culture construct violence risk factors.

Communities and cultures function together in the development of citizens that live in that community and participate in that culture. Culture reflects inherited norms and values of society that help determine how individuals respond to changing environment/community (CDC, 2003). A 1991 determined that cultures that fail to provide non-violent alternatives to resolve conflicts had higher rates of youth violence (Bedoya Marín, 1991). This study described how youth in low-income communities are influenced by a culture of violence that is perpetrated by society in general and particularly in their communities. Bedoya Marín (1991) further suggest that a culture of violence is promoted on community level cooperation and acceptance of “easy money” and a “by any means necessary” mentality to obtain it.

Culturally appropriate community context for intervention.

All violence is not created equal. Risk factors vary between types of violence (i.e. youth violence, IPV and gun violence). Violence also has specific layers of context appropriateness that needs to be considered when constructing culturally appropriate prevention strategies. Due to the many forms in which violence manifests itself in our society, there are inherently specific cultural foundations in which different types of violence are produced. For example, Drucker (2011) illustrates that gun violence in urban environments often has a cultural backdrop of a potential drug trade. He further states that urban violent disputes are often linked with drug dealing and drug trafficking due to enforcement of drug debts, arguments with competitors, and establishing control over territory in urban settings (Drucker, 2011). Realizing the cultural norms and trends that are associated within an at-risk population can help ensure greater success of impacting the targeted population.
In the cultural context above of drug related gun violence, an interventionist should not utilize law enforcement to deliver a “non-violence” message, due to the cultural norm to mistrust law enforcement and the inherent conflict and competing agendas of law enforcement and at risk individuals with drug culture connections. However, in the cultural context of youth violence in non-urban schools, utilizing law enforcement to deliver a non-violent message could be appropriate.

**Core Competencies for Violence Prevention**

Efforts to reduce the burden of injury and violence require a workforce that is knowledgeable and skilled in prevention. However, there had not been a systematic process to ensure that professionals possess the necessary competencies. In 2005, the National Training Initiative for Injury and Violence Prevention (NTI) was instituted from the Society for the Advancement of Violence and Injury Research (SAVIR) to develop competencies that are distinctive and critical to success in injury and violence prevention practice. These core competencies were developed for public health practitioners in injury and violence prevention programs:

- Describe and explain injury and violence as a major social and health problem;
- Access, interpret, use, and present injury and violence data;
- Design and implement injury or violence prevention activities
- Evaluate injury or violence prevention activities;
- Build and manage an injury or violence prevention program
- Disseminate information related to injury or violence prevention to the community, other professionals, key policymakers, and leaders through diverse communication networks;
• Stimulate change related to injury or violence prevention through policy, enforcement, advocacy, and education;

• Maintain and further develop competency as an injury or violence prevention professional; and

• Demonstrate the knowledge, skills, and best practices necessary to address at least one specific injury or violence topic (e.g., motor vehicle occupant injury, intimate partner violence, fire and burns, suicide, drowning, child injury) and be able to serve as a resource to convey knowledge, skill, and best practices to others regarding that area (Songer, 2009).

These competencies speak to skills that enable or enhance the ability of public health professionals to practice successful injury and violence prevention. However, they do not address physician competencies for violence prevention.

Medical Schools’ Integration of Public Health Curriculum

A report by the American Association of Medical Colleges (AAMC) and the Centers for Disease Control and Prevention (CDC) revealed that only 25% of accredited allopathic medical schools in the US required coursework in topics associated with injury prevention (American Association of Medical Colleges [AAMC], 2005). The AAMC concluded “a better prepared physician workforce may result in improved coordination and collaboration with public health colleagues who work in injury” (AAMC, 2005, p. 2). This report underscores the need to train medical students on violence and injury and to better improve the infrastructure of public health initiatives that address violence prevention.
Medical schools as public health centers.

In 2003, the AAMC and the CDC established the Regional Medicine-Public Health Education Centers (RMPHECs) and Regional Medicine-Public Health Education Centers-Graduate Medical Education (RMPHEC-GME). The goal was to improve population health, public health, and prevention education for medical students and residents (AAMC, 2009). These RMPHEC and RMPHEC-GME sites were required to partner with at least one state or local public health agency to help integrate this content into their curricula. Grantees developed their own educational approaches and materials that are consistent with their institutions' curricular structures and themes. In early 2006, a call for proposals was developed that requested that applicants "fully integrate population health into the medical school curriculum" (AAMC, 2009). By May 2006, the following 16 schools were funded RMPHEC sites:

Table 1

<table>
<thead>
<tr>
<th>Medical School</th>
<th>State</th>
<th>Year(s) Funded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brody School of Medicine at East Carolina University</td>
<td>North Carolina</td>
<td>2006- Present</td>
</tr>
<tr>
<td>Case Western Reserve University School of Medicine</td>
<td>Ohio</td>
<td>2006- Present</td>
</tr>
<tr>
<td>Harvard Medical School</td>
<td>Massachusetts</td>
<td>2006- Present</td>
</tr>
<tr>
<td>Mercer University School of Medicine</td>
<td>Georgia</td>
<td>2003, 2006- Present</td>
</tr>
<tr>
<td>Morehouse School of Medicine</td>
<td>Georgia</td>
<td>2003</td>
</tr>
<tr>
<td>Northeastern Ohio Universities College of Medicine (NEOMED)</td>
<td>Ohio</td>
<td>2003</td>
</tr>
<tr>
<td>Southern Illinois University School of Medicine</td>
<td>Illinois</td>
<td>2006- Present</td>
</tr>
<tr>
<td>Stanford University School of Medicine</td>
<td>California</td>
<td>2006- Present</td>
</tr>
<tr>
<td>SUNY Upstate Medical University</td>
<td>New York</td>
<td>2003</td>
</tr>
<tr>
<td>Texas Tech School of Medicine</td>
<td>Texas</td>
<td>2003</td>
</tr>
<tr>
<td>University of California, Davis School of Medicine</td>
<td>California</td>
<td>2006- Present</td>
</tr>
<tr>
<td>University of Colorado School of Medicine</td>
<td>Colorado</td>
<td>2006- Present</td>
</tr>
<tr>
<td>University of Kansas School of Medicine</td>
<td>Kansas</td>
<td>2003</td>
</tr>
<tr>
<td>University of New Mexico School of Medicine</td>
<td>New Mexico</td>
<td>2003, 2006- Present</td>
</tr>
<tr>
<td>University of Rochester School of Medicine and Dentistry</td>
<td>New York</td>
<td>2006- Present</td>
</tr>
<tr>
<td>University of Vermont College of Medicine</td>
<td>Vermont</td>
<td>2006- Present</td>
</tr>
</tbody>
</table>
Of the 16 medical schools granted the funds to integrate public health into their medical school curricula, two schools (Northeastern Ohio Universities College of Medicine (NEOMED) and SUNY Upstate Medical University) included violence training in their curricula, according to their project summary statements. NEOMED specifically looked at gun violence while SUNY Upstate only explored adolescent suicide (AAMC, 2009).

**Violence Prevention in Physician Curriculum**

The literature on violence-prevention in curricula for both public health officials and medical students is limited. Most of the literature on violence prevention education deals with Intimate-partner Violence (IPV) assessment in clinics and health care settings. Although IPV assessment tools are very useful to practicing physicians, there is limited literature on violence-prevention education for future physicians and public health practitioners.

**The role of physicians in violence prevention.**

Although many physicians and health professionals agree that they have a role to play in the prevention of violence (AAP, 2002), there is a distinct disconnect between perceived responsibility and actual practice (Sidelinger et al., 2005). Even though physicians profess willingness and desire to serve an interventionist role, there is a disappointing lack of actual practice of routine prevention such as screening, counseling, and referral (Cassel, 1998). In other words, “the heart is willing but the head is unprepared” (Wright, 2005).

**Beliefs of physicians on violence prevention.**

Articles that are among the limited research provide insight into physicians’ beliefs about their role in violence prevention. One such article (Webster, 1994) affirmed the need for pediatricians’ involvement in the prevention of gun violence among youth. Webster (1994) argues that the pervasiveness of guns in the United States leads to the epidemic of gun violence
and pediatricians should participate in primary prevention of firearms. This author outlines a set of recommendations: (1) that pediatricians should talk to parents long before their children reach adolescence; (2) removal of guns from homes; (3) limit viewing gun violence and playing of toy guns and video games; (4) be alert of aggressive behavior; (5) and personally become advocates for laws that restrict gun availability (Webster, 1994). Although Webster’s (1994) article bolsters the idea that physicians have a role to play in the prevention of gun violence, it does not promote the importance of curriculum-based training of medical students, in order to increase depth of knowledge in gun violence. Garimella, Plichta, Houseman, and Garzon’s (2000) study found that 97% of physicians believe assiatiating victims of domestic violence is part of their role, yet 70% do not believe they have the resources available to them to assist the victims outside of medical treatment.

An additional article shows the curbing of an internationally recognized public health issues of violence through medical education based on the medical students perception of domestic violence. Ergonen, Salacin, Karademir, Gursel, and Musal (2007) conducted a course on domestic violence with the learning objectives to make medical students question their personal prejudices on domestic violence, to create awareness on the issue, and to inform them about physician responsibilities and relevant legislation. This particular article examined domestic violence in Turkey and other Middle Eastern and European excluding the United States. There is a parallel between the issues described globally by Ergonen et al. (2007) and those described earlier on gun violence. I suggest the US medical education system adopt a similar model of educating its medical students and public health professional. This could be accomplished by making medical students and public health officials question their prejudices on
gun violence, create awareness on the issues on gun violence and to inform them about their role and responsibility and legislation impact.

**Practice of physicians on violence.**

While some literature focuses on physician and medical student’s beliefs and assessments, other reports illustrate the need for a workforce of health practitioners competent in violence and injury control, and underscore the lack of emphasis placed on violence in health departments. Both injury and violence prevention efforts in health departments are low in scale and resources compared with activities to reduce the major chronic and infectious diseases (Songer, 2009). An additional report by the institute of Medicine has singled out the poor public health infrastructure and the imperative need to train a workforce for effective efforts to reduce injuries and violence (Institute of Medicine, 1999).

**Professional organizations/ association’s role in violence prevention.**

Despite the practices of physicians in ladder years of 1990 and early 2000, many of their professional associations have weighed in on practices and beliefs in regards to injury with. Both professional associations for medical and public health professionals have also called for greater expansion and education on injury with violence in view. The Association of Schools in Public Health (ASPH) has assessed injury training and research in schools and departments of public health. They have identified the important need to including faculty recruitment with expertise in injury, expanded curricula, and funds for faculty training and development for injury (AAMC, 2005). The American Medical Association (AMA), American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP) developed a joint policy statement that calls for health professionals to incorporate youth violence prevention into their practices (Williams, Rivera, Neighbours, & Reznik 2007).
Legislation impact on physicians role in violence prevention.

In the discussion on physicians’ roles in violence prevention, pediatritions tend to take center stage such as those at Columbine (Lamb, 2008) and Sandy Hook (New York Times, 2012a) in this discussion due to the tragedy of child injury or death as a result of gun violence. To further complicate the role of physicians in violence prevention, legislation in one state has made it illegal to ask preliminary screening questions about gun safety while treating patients. The Florida Governor Charlie Crist signed a law in June 2011 that barred Florida physicians from asking their patients if they owned a firearm (Marcus, 2011). The legislation stated that asking questions related to gun ownership was a violation of the patients’ 2nd Amendment right to bear arms. This has since been overuled by the Supreme Court of Florida, allowing physicians to ask their patients questions about guns in the home, ruling that asking patients screening question does not violate an individulas 2nd Ammendment rights (Marcus, 2011). Again, this remains at the stage of politics and philosophy, not action. This manuscript is designed to allow action on this issue of public health and medical professional education to begin.

Prelude to Violence Module in Curriculum

Physicians inherently have a role to play in the prevention of violence. The nature of their occupation places them in the “process” of violence in the form of treatment. It is my contention that a proper gun violence-prevention educational curriculum for medical and aspiring public health professional students can help combat multiple forms of violence, and will help strengthen the infrastructure of public health. Several articles and studies support my position for a more purposeful and fundamental approach to training and educating health professionals on violence as mentioned in the literature review of this document. I contend that violence–prevention education can equip medical students with the necessary knowledge base to
help victims they believe they should assist, but don’t feel they have the resources and/or knowledge base to properly assist (Garimella, Plichta, Houseman, & Garzon, 2000). Proper education can help physicians and public health officials make sense of the violence they encounter. The United States has seen its share of tragic incidences of gun violence. In 2011-2012 the United States has encountered several high profile cases of gun violence that garnered the nation’s attention around gun violence:

- Florida’s Trayvon Martin unarmed killing (New York Times, 2012b)
- The Aurora, Colorado theater shooting that killed 12 and injured 58 people (New York Times, 2012c)
- The continued souring homicide rate in Chicago, 506 in 2012 (Davey, 2013)

These incidents have sparked national debate on methods to prevent gun violence ranging from gun control legislation, mental health testing, strengthening research on gun violence and violence in entertainment (Harris, 2013). However, there has been no public discussion about the education of physicians and/or public health officials on the topic of gun violence.

**Module Development**

In following pages of this manuscript, I have proposed gun violence prevention module that can be implemented into a degree curriculum to educate medical and public health students. Wright State University Boonshoft School of Medicine’s (WSUBSOM) Medical and Master of Public Health’s curriculums were utilized as templates and examples of how and where a gun
violence module can be implemented. WSUBSOM’s medical and public health programs objectives and course schedules were reviewed and documented for optimal placement within a degree curriculum.

Live interviews were conducted with medical and public health curriculum subject matter experts to illustrate the challenges, optimal placement and need for gun violence curriculum.

Lastly, a violence prevention module was created utilizing information from literature that deals with violence broadly and from live interviews with subject matter experts. The module is composed of a three-component outline with learning objectives in each component. The module is accompanied by example gun-violence prevention for medical presentation (Appendix D) that is comprised of the modules’ components. The presentation has been presented to medical students in the WSUBSOM as part of their psychological portion of their general medical school curriculum for two years. Thus far the presentation has been well received by students and faculty (B. Roman personal communication, 2012).

Module Application

The education module was developed with the intent to be applicable to various violence topics, audiences and lengths of time dedicated to the topic(s). Therefore, prior to adopting this a violence-based module one must first determine: (1) What is the violence topic(s), (2) who is the audience receiving this education, (3) what is the length of time (class days) dedicated to violence prevention education via this module. Based on those answers the module can be tailored to suite one’s violence prevention educational. The module was developed in order to be seamlessly be implemented into a curriculum. The module has the capacity to be adapted to fit virtually any violence-based topics. Finally, the module can be concentrated to a singular class
day and/or expanded to a series of classes. The educator implementing the education module determines the length of time dedicated to the violence topic(s) of choice.

**Violence Based Module Curriculum Development in WSUBSOM MD and MPH Programs**

**Medical Doctoral Program Overview**

The current curriculum for medical students at Wright State University Boonshoft School of Medicine (WSUBSOM) is centered around nine educational objectives that are divided into three sub-categories: Knowledge and Lifelong Learning, Interpersonal and Communication, and Professionalism, Advocacy, and Personal Growth (See Appendix C for full list of learning objectives) (Boonshoft School of Medicine, Wright State University, 2011).

**Knowledge and lifelong learning objective.**

Knowledge and lifelong learning objectives focuses on the cognitive and technical knowledge/skills medical student will learn. This area additionally concerns itself with problem solving and the understanding and identification of cultural influences and diverse factors that influence health/health care delivery as they apply to the spectrum of individuals and population. Medical students also expected to obtain the ability to respond to those factors via planning and advocating the appropriate course of action at both the individual, and the community level and groups.

**Interpersonal communication objective.**

Interpersonal communication objectives are geared to strengthen the student’s capacity to communicate to colleagues and patience (written or orally) on related topics. Students’ ability to communicate will allow them to forge relationships and communicate diagnoses effectively.
Professionalism, advocacy, and personal growth.

Finally, professionalism, advocacy, and personal growth objectives speak to the student’s abilities to identify gaps in patients’ needs and collaboration with allied health professionals to close said gaps. This set of objectives also focuses on students attaining the highest ethical standards of the medical profession: honesty, confidentiality, reliability, dependability, civility, and punctuality. All of the aforementioned learning objectives are achieved through WSUBSOM’s 4-year curriculum (two years of course/class work and two years of applied clerkship).

Wright State University Boonshoft School of Medicine years one-two.

The first two years for medical students in the WSUBSOM are focused on the basics of the science of medicine. Learning activities include presentations, small group case discussions, team-based learning modules, laboratory exercises, and standardized and volunteer patient interviews. Assessments include computer-administered multiple-choice and short essay examinations, laboratory and dissection practical, essays, team-based learning modules, peer evaluation, supervised interviews with volunteer patients and evaluation by standardized patients. A full list of medical school courses, year’s one–four, are in Table 2.
Table 2

Booshoft School of Medicine, Wright State University Year’s One-Four Course

<table>
<thead>
<tr>
<th>Year</th>
<th>Courses</th>
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<tbody>
<tr>
<td>First Year</td>
<td>Cells &amp; Tissue Organ Systems</td>
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<tr>
<td></td>
<td>Human Development</td>
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<td></td>
<td>Human Structure</td>
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<td></td>
<td>Introduction to Clinical Medicine I</td>
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<td></td>
<td>Molecular Basis of Medicine</td>
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<td></td>
<td>Principles of Disease</td>
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<td>Social &amp; Ethical Issues in Medicine</td>
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<tr>
<td>Second Year</td>
<td>Cardiovascular</td>
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<td></td>
<td>Clinical Decision Making</td>
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<td></td>
<td>Digestive</td>
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<td></td>
<td>Endocrine</td>
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<td>Hematology</td>
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<td>Introduction to Clinical Medicine II</td>
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<td>Medical Neuroscience</td>
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<td>Reproduction</td>
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<td>Respiratory</td>
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<td>Third Year</td>
<td>Family Medicine</td>
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<td>Internal Medicine</td>
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<td>Pediatrics</td>
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<td>Psychiatry</td>
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<td>Women’s Health</td>
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<td>Fourth Year</td>
<td>Emergency Medicine</td>
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<td>Neurology</td>
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<td>(Six- Month Elective Rotation)</td>
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Wright State University Boonshoft School of Medicine year’s three-four.

The last two years of medical school are clinical clerkships carried out at affiliated hospitals located in the Greater Miami Valley area in Ohio. WSUBSOM’s two-year medical clerkship consists of a separate list of learning objectives that are congruent with the school’s educational objectives and an assessment system. Students in their 4th year are required to complete a six-month elective rotation. See Table 2 for year’s three-four clerkship courses.

Violence based module placement in Wright State University medical doctoral program.

Proper placement of a violence prevention instructional module in a doctoral program is imperative to obtaining favorable outcomes in subsequent curriculum. With a variety of disciplines and stages to a MD program, implementing a violence-prevention module is challenging in discerning its placement to maximize effectiveness.

Brenda Roman MD, Director of Curriculum Development at WSUBSOM, suggested a targeted approach for a violence-prevention module for medical students. In an interview with Dr. Roman, she noted the optimal time to implement such a module would be during the clinical stage of the medical curriculum (B. Roman personal communication, 2012). Dr. Roman asserted, “it’s during the clinical stage that medical students see the results of violence up close.” She noted that, “Having a violence-prevention module at the time of clinical practice would bring realism to violence and the physician’s potential role. It’s also the point at which many medical students feel a sense of helplessness in coping with violence and what they as physicians can do to help, besides medical treatment.” (B. Roman personal communication, 2012). When asked about the need for a violence-prevention module for medical students Dr. Roman stated, “Students are exposed to the real world and from my observation, and their comments, a
violence-prevention module would be very beneficial to students”. She gave her opinion that, “Surgical students’ curriculum will have an easier implementation as opposed to psychological students’ curriculum due to the limits the students impose on themselves by processing violence as a mental health issue.” She concluded, “Clearly noting that violence is not always nor just a mental health concern,” (Brenda Roman personal communication, 2012).

In addition to Dr. Roman, Dr. Stacey Poznanski, DO, Director of the Emergency Medicine Clerkship and Assistant Professor commented on the need for a violence-prevention module for medical students and shares many of the opinions with Dr. Roman. In an interview, Dr. Poznanski says, “Implementation of a violence-prevention module would be beneficial to medical students. A general introduction would be great in their first years, but it’s in the physician’s specialty training when it would be appropriate to introduce a module that will equip them with tools to assist in violence prevention.” She goes on to note that, “the surgical discipline is a great place to implement, but a better place would be in the Emergency Medicine Clerkship. Medical students tend to suffer from information overload, and violence-prevention training can be a great asset if given clear tools such as when to consult, and signs of violence or abuse to name a few” (S. Poznanski personal communication, 2012).

**Wright State University Master of Public Health Program Overview**

**Component one: core courses.**

The Wright State University (WSU) Master of Public Health (MPH) program consists of three major components. The first component is the five core courses (15 semester hours) that are required to satisfy the Council on Education for Public Health (CEPH) core curricular elements for graduate programs in community health/preventive medicine and to sufficiently
educate enrolled students in the fundamentals of public health. The WSU MPH core courses include:

- Biostatistics of Health Professionals
- Public Health Epidemiology
- Environmental Health
- Social and Behavioral Determinants of Health
- Health Resource Management and Policy

Component two: concentration courses.

The second component consists of six concentration courses, which make up 18 semester hours. WSU MPH students are allowed to select from the following four areas of concentration:

- Emergency Preparedness
- Global Health
- Health Promotions and Education
- Public Health Management

Component three: practice placement and culminating experience.

The final component of the WSU MPH program is the practice placement and the culminating experience (CE). The practice placement gives students the opportunity to apply their skills directly within the community setting. Students are to partner with a public health agency/organization and work within the agency. This serves as a method to ground students in "real world" public health applications, and provides a service to the community. The practice placement accounts for two semester hours.

WSU’s MPH culminating experience is the final degree requirements MPH students undertake. Each student works with a faculty advisor to help develop a project that culminates
the student’s experience while in the MPH program. Projects range from population experimental studies to proposals of methods and public health best practices. The applied project will include elements from the core courses as well as mastery of the concentration area of study.

**Violence prevention module placement in Wright State University master of public health program.**

Placement of a violence-prevention module in an MPH program, WSU or otherwise, seems to have wide support by several faculty and staff of various MPH programs. However, several factors need to be considered, according to Dr. Amy Lee (personal communication, 2012). Dr. Lee, MD, MPH, MBA is a noted program director for the Consortium of Eastern Ohio Master of Public Health program, a partnership of The University of Akron, Cleveland State University, Northeast Ohio Medical University, Ohio University, and Youngstown State University. She previously was practicing obstetrician/gynecologist, she changed her specialty to public health and general preventive medicine, in which she is board certified. She is based at Northeastern Ohio Medical University as Associate Professor of Community Medicine where she is also involved in admissions and information technology. Dr. Lee agrees that a violence-prevention module would be beneficial to the education of a student in an MPH program, however consensus around the topic of violence is just important as the curriculum. “Building consensus, among faculty and staff, around violence is important because they will be the supporters of taking on a module in one of their classes,” Dr. Lee mentions. She raises additional questions for a department in the adoption of a module that could be considered; “does this help our program stay accredited, and does the area we live in have a problem with violence that would cause a program to implement a module” she mentions. Dr. Lee’s recounts her
experience of potential competing elements that could factor in to an additon to a program’s
curriculum. “More traditional and less politically-tied public health concerns are often more
easy to include in a MPH program, versus topics that generate a visceral reaction, i.e. guns or
violence” she recounts. “Much like HIV in the 80s, support for teaching and tackling HIV and
AIDS had to be won over, over time. “Guns seem to have a political overtone and implication in
the United States, which adds an additional factor that makes gun violence a unique public health
problem to educate about,” she concludes (A. Lee personal communication, 2012)

Violence-Prevention Education Module Outline

The violence-prevention module consists of three components presented via an
“unfolding case” presentation. An unfolding case is a presentation based on the procudre of
events that “unfold” while a physician encounters patients in a clinical setting, or when a public
health professional addresses a public health concern via a scenario. Each of the three
components addresses key learning objectives that are specific to the individuals’ respective
education that will assist in their technical training of patient interaction or public engagements;
for example, a trauma surgeon training case will look different from a general practice physician
case, which is different from an MPH students’ unfolding case. The compents below are non-
specific to a particular discipline, thereby allowing the unfolding case to be adapted. However,
the referenced unfolding case presented here is tailored to a general physician audience, as a pilot
for the Gun Violence unfolding case (see Appendix D for full unfolding case).

Component One: Violence Identification

Component one focuses on identification of violence and/or the signs of violence. I have
defined violence identification as the ability to understand the various types of violence that exist
and that are prevalent in clinical settings and/or in everyday settings. In a Health Policy and
Ethics article, eight competencies were identified, regardless of field of study or discipline in the health workforce, that are essential to the prevention or intervention of violence (Songer, 2009, p. 10).

Component one was identified as an individual’s ability to understand the basics of injury and violence, specifically, a focus on the definitions of unintentional injury and intentional violence, and its significance as a public health issue. Once a foundation of violence understanding is established, one can then begin to understand its signs and manifestations, specifically for physicians in a clinical setting. In the unfolding case, component one will focus primarily on the physician’s knowledge base of violence identification and signs that accompany specific violent behavior.

**Learning objectives to achieve in component one.**

1. Describe the various types or categories of violence and its prevalence.
2. Identify and recognize the signs that are commonly associated with specific types of violence

**Component Two: Situation Diagnosis and Identification of Social and Environmental Factors that Contribute to Violence**

The goal of component two is diagnosing the signs that have been observed and the identification of the potential factors that contribute to the individual’s propensity toward violence. Component two addresses the signs that indicate what type of violence is potentially being perpetrated against, or by, the patient and/or individuals in a community. In the same competencies identified by Songer (2009), he stated that “individuals who are engaged in the prevention of violence should also understand the mechanisms surrounding violent occurrence, how such events are preventable, understanding of disparities in injury and violence and risk
factors” (p. 6-9). More specifically to domestic violence, Ergonen, Ozdemir, and Salacin (2002) state that it is recommended that physicians should have the knowledge, skills and attitudes to properly approach and diagnose domestic violence patients and to record and save evidence.

Drucker (2011) speaks on the cultural backdrop that is associated with gun violence in urban settings. Despite the type of violence, violence has a culture that is associated with it that needs to be understood by those who intend to prevent violence in whatever form. Component two builds on these principles. Students will learn how to diagnose an individual’s potential risk of being a victim of violence and their potential to perpetrate violence, via cultural awareness of violence risk factors.

**Learner objectives for component two.**

1. Understand the risk factors that are associated with specific types or categories of violence.

2. Be able to diagnose or determine the potential violence that is being perpetrated against or by the individual and/or group.

3. Understand the accompanying culture that is associated with the violence that is being perpetrated against or by the individual and/or group.

4. Assess the verbal and non-verbal cue.

In conclusion, I contend that the more educated our health professionals are on violence the better equipped they are will be to handle the cases and public health concerns that come across their paths and that show up in their communities. Despite the politics and social agendas, individuals and populations are being affected by violence, specifically gun violence at alarming rates, yet health professionals are not being educated on the topic in a meaningful manner that could lead to better outcomes for their patients and/or community members. Adoption of a
violence prevention module in curriculums for health professionals will aid them in fulfilling their professional obligation to help people live healthier lives.

**Component Three: Resources and the Law**

The focus in component three will on resources that are available to physicians and public health officials as well as the proper utilizations of those resources. Additionally, component three focuses on the legal obligations treating physicians have in regards to the various types of violence. Knowing what resources that exist in the community in which the physician and/or public health official practices will aid them in their participation in violence prevention.

Garimella et al. (2000) found that 70% of a cross-section of physicians that were surveyed do not believe that they have the resources available to them to assist victims of violence. In the same study 48% of the physicians do not feel confident that they can make appropriate referrals. This study bolsters the concept of educating physicians on the appropriate resources that exist in their respective communities.

Each state within the US has their respective laws in regards to what treating physicians are obligated to do under the law. Under the Ohio Revised Code, treating medical staff have the legal obligation to report crimes to law enforcement and must document in a patient’s file if they have reasonable cause to believe injuries were a result of violence (State of Ohio Revised Code, 1996). The State of Ohio Revised Code (1996) does not extend patient/client privilege to reports and knowledge noted in a patient’s file in regards to violence.

**Learner objectives to achieve in component three.**

1. Understand what services are accessible to physicians to assist violence victims in their respective communities.
2. Understand what the physician’s legal obligation is in regards to violence and documenting with their respective states.

Conclusion

In conclusion, I contend that the more educated our health professionals are on violence the better equipped they are will be to handle the cases and public health concerns that come across their paths and that show up in their communities. Despite the politics and social agendas, individuals and populations are being affected by violence, specifically gun violence at alarming rates, yet health professionals are not being educated on the topic in a meaningful manner that could lead to better outcomes for their patients and/or community members. The proposed module is just a starting point that can be expanded upon. However, adoption of a violence prevention module in curriculums for health professionals will aid them in fulfilling their professional obligation to help people live healthier lives.


References


https://www.aamc.org/initiatives/cdc/aamcbased/rmphec/64936/rmphec_grantees.html


http://www.med.wright.edu/curriculum/objectives


## Appendix A

### Youth Violence Risk Factors

<table>
<thead>
<tr>
<th>Individual</th>
<th>Family</th>
<th>Peer/Social</th>
<th>Community/ Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of violent victimization</td>
<td>Authoritarian childrearing attitudes</td>
<td>Association with delinquent peers</td>
<td>Diminished economic opportunities</td>
</tr>
<tr>
<td>Attention deficits, hyperactivity or learning disorders</td>
<td>Harsh, lax or inconsistent disciplinary practices</td>
<td>Involvement in gangs</td>
<td>High concentrations of poor residents</td>
</tr>
<tr>
<td>History of early aggressive behavior</td>
<td>Low parental involvement</td>
<td>Social rejection by peers</td>
<td>High level of transiency</td>
</tr>
<tr>
<td>Involvement with drugs, alcohol or tobacco</td>
<td>Low emotional attachment to parents or caregivers</td>
<td>Lack of involvement in conventional activities</td>
<td>High level of family disruption</td>
</tr>
<tr>
<td>Low IQ</td>
<td>Low parental education and income</td>
<td>Poor academic performance</td>
<td>Low levels of community participation</td>
</tr>
<tr>
<td>Poor behavioral control</td>
<td>Parental substance abuse or criminality</td>
<td>Low commitment to school and school failure</td>
<td>Socially disorganized neighborhood</td>
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<tr>
<td>Deficits in social cognitive or information-processing abilities</td>
<td>Poor family functioning</td>
<td></td>
<td>Media influences</td>
</tr>
<tr>
<td>High emotional distress</td>
<td>Poor monitoring and supervision of children</td>
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<td></td>
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</tbody>
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Appendix B

Youth Violence Protective Factors

<table>
<thead>
<tr>
<th>Individual/Family Protective Factors</th>
<th>Peer/Social Protective Factors</th>
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<tbody>
<tr>
<td>Intolerant attitude toward deviance</td>
<td>Commitment to school</td>
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<tr>
<td>High IQ</td>
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<tr>
<td>High grade point average</td>
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<tr>
<td>Positive social orientation</td>
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<td>Religiosity</td>
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<td>Connectedness to family/ adults outside of family</td>
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<tr>
<td>Ability to discuss problems with parents</td>
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<tr>
<td>Perceived parental expectations about school performance are high</td>
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<tr>
<td>Frequent shared activities with parents</td>
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<tr>
<td>Consistent presence of parent during at least one of the following: when awakening, when arriving home from school, at evening mealtime or going to bed</td>
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<tr>
<td>Involvement in social activities</td>
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Appendix C

Boonshoft School of Medicine, Wright State University Educational Objectives

Knowledge and Lifelong Learning

1. The graduate will demonstrate knowledge of the basic medical sciences; clinical skills; and the ability to acquire, manage, and use current information for clinical decision-making and problem-solving in the care of individual patients, family members, populations, and systems of care delivery.

2. The graduate will demonstrate knowledge of the ethical, social, economic, and cultural influences upon the health of and health care delivery to patients and patient populations, and will be able to propose realistic approaches to improving the health of an individual patient and for a patient population.

3. The graduate will be able to identify the diverse factors that influence the health of the individual and the community; identify the socio-cultural, familial, psychological, economic, environmental, legal, political, and spiritual factors impacting health care and health care delivery; and be able to respond to these factors by planning and advocating the appropriate course of action at both the individual and the community level.

Interpersonal and Communication

4. The graduate will demonstrate the ability to establish a professional relationship with a patient, build a comprehensive medical and social/personal history, conduct either a focused or comprehensive physical examination as indicated, construct a differential diagnosis, and recommend a course of treatment consistent with current standards of care.

5. The graduate will demonstrate the ability to communicate (written and oral) clearly, professionally, and effectively with patients, their family members, health care team members, and peers.

6. The graduate will demonstrate the capacity to listen to and respond appropriately to constructive feedback from peers and teachers, as well as give constructive feedback and evaluation to peers and faculty as requested.

Professionalism, Advocacy, and Personal Growth

7. The graduate will be able to identify personal strengths and weaknesses in the care of patients and working with colleagues and allied health professionals, and, if indicated, demonstrate the ability to make changes in behavior that facilitate collaborative relationships.

8. The graduate will demonstrate through the period of undergraduate medical education a pattern of responsible behaviors consistent with the highest ethical standards of the profession: honesty, confidentiality, reliability, dependability, civility, and punctuality.

9. The graduate will demonstrate a commitment to leadership and the advancement of new knowledge.
Appendix D
Pilot “Unfolding Case Gun Shot Wound Case Study” Presentation for Medical Students

GSW Case Study
Through the Ecological Model of Health Determinates Lens

Learning Goals

By the end of this session, students should be able to:

- Describe the various types/cATEGORIES OF VIOLENCE
- ID and recognize the signs that are commonly associated with specific types of violence
- ID Risk Factors of violence associated with the individual
- Situation Diagnoses diagnose of an individual's potential danger of violence and their potential to perpetrate violence via cultural awareness knowledge base of violence risk factors.
- Understand the accompanying culture that is associated with the violence that is being perpetrated against or by the individual.
- Identify social and environmental factors that contribute to violence in a community
- Identify examples of community level violence intervention and prevention initiatives and resources that are available to physicians
Case

† John is a 13 year old African American male who has entered the Emergency Department at 1am with two GSW to the lower back and hamstring. There is a risk of possible paralysis due to bullet in the back. His older brother, age 19, enters the ED at 2am. His mother cannot be reached for two hours, but finally enters the ED at 3am. No father can be reached (he is incarcerated).

Case Cont.

† The mother, brother, and John speak with the you, the treating physician.

† The mother is very distraught as she had to leave her late shift at the local plant. She is dressed in her company’s uniform of jeans and shirt. The older brother is visibly upset and agitated about the incident. His eyes are glassy and red and there is an odor of marijuana and alcohol permeating the room.

† You also learn that during John’s stabilization in the trauma bay the nurses recover $560 of cash from John’s pockets, a screwdriver, and two cell phones.
The talk with the family

- You say hello to the mother and to the older brother. The mother responds but the brother does not. You let them know of the potential paralysis John is facing, but you find yourself constantly interrupted by phone noises coming from the mother and brother.

- You inform them that John is headed into surgery to remove the bullets away from his spine.

- Mother and brother are crushed by the news.

Past Medical History’s

- John has no relevant medical history (that we know of)

- The brother however, was treated for a piercing trauma to the abdomen at the age of 17

- The mother was treated for a drug overdose five years ago
Questions

♀ What are your initial reactions to this situation?

♀ What are you going to do next?

Next Steps

♀ Interview John alone while he is in a state of cooperation

♀ Interview the mother and brother while they are seemingly in a cooperative state
Physical Environment

❖ Your talk with the mother and the brother reveals the following facts:

❖ John lives in a local government housing project but sleeps in multiple places within the housing complex, and in different places throughout the city.

❖ John eats when he gets hungry and feeds himself, which has been doing since he was 8.

❖ John is consistently exposed to illegal drug activity

Social Environment

❖ The talk with the family also reveals the following:

❖ John rarely attends school and is not involved in any extra curricular activities, but has aspirations of playing in the NBA.

❖ He has a clique/crew he hangs out with, but his main influence in his older brother.

❖ You learn that John is selling drugs for his brother and was shot in a deal gone bad.
Risk Factors for Gun Violence

Drugs Trade: Violent disputes are often linked with drug dealing and drug trafficking due to enforcement of drug debts, arguments with competitors, and establishing control over territory.

At-Risk Housing Developments: Violent crime in public housing dramatically exceeds levels of violence in other disadvantaged nonpublic housing neighborhoods. Residents of public housing are twice as likely to be victims of gun violence than individuals who do not reside in public housing facilities.

Gang Activity: Gangs are responsible for a large percentage of the crime in many urban and some suburban communities in the United States. Gangs often engage in drive-by shootings to intimidate or threaten rivals or to establish their gang's turf. Research shows that at-risk youth who are not involved in gang activity are less likely to engage in drive-by shootings than involved gang members.


Risk Factors for Gun Violence Cont.

Gun Availability: Greater firearm availability not only increases the rates of homicide, but also increases the rates of other types of felony gun use.

Criminal History: Perpetrators of weapon-related offenses are more likely to have extensive criminal histories. In addition, youth gun violence is disproportionately present in youths with criminal backgrounds including violent offenses, disorder offenses, and drug offenses.

Demographic Factors: Gun violence is concentrated among young minority males who live in socially and economically disadvantaged communities.

Setting Effects: Urban locations see higher levels of gun violence, both fatal and non-fatal. This increase may be due to the urban area's higher levels of gang conflicts, drug markets, and gun availability.

Temporal Effects: The majority of gun violence occurs between 7 p.m. and 1 a.m.. Drive-by shootings frequently occur at night because darkness serves to conceal offenders.
Questions

Given what you know about risks of injury via GSW, what are your primary concerns for John?

Questions

What do you think?
What do you know?
Who else might you involve in this case?
What’s Next?

- Documentation of findings in medical record?
- John is a minor, do you inform Child Protective Services?
- Inform the police about the crime of selling drugs?

Think: What would you tell mom?

What about the Family?

- Is this a neglectful mother, or just a poor one?
- Could the mother also have drug problem, given her history?
- What happens to the brother, and what can be done with the brother to limit his influence over John, and potentially his mother?
Ohio Revised Code

\(2921.22\) Failure to report a crime or knowledge of a death or burn injury.

(B) Except for conditions that are within the scope of division (E) of this section, no physician, limited practitioner, nurse, or other person giving aid to a sick or injured person shall negligently fail to report to law enforcement authorities any gunshot or stab wound treated or observed by the physician, limited practitioner, nurse, or person, or any serious physical harm to persons that the physician, limited practitioner, nurse, or person knows or has reasonable cause to believe resulted from an offense of violence.

\* Source: Ohio Revised Code
Title [29] XXIX CRIMES - PROCEDUREChapter 2921: OFFENSES AGAINST JUSTICE AND PUBLIC ADMINISTRATION

Ohio Revised Code cont.

(F)(1) Any doctor of medicine or osteopathic medicine, hospital intern or resident, registered or licensed practical nurse, psychologist, social worker, independent social worker, social work assistant, professional clinical counselor, or professional counselor who knows or has reasonable cause to believe that a patient or client has been the victim of domestic violence, as defined in section 3113.31 of the Revised Code, shall note that knowledge or belief and the basis for it in the patient's or client's records.

(2) Notwithstanding section 4731.22 of the Revised Code, the doctor-patient privilege shall not be a ground for excluding any information regarding the report containing the knowledge or belief noted under division (F)(1) of this section, and the information may be admitted as evidence in accordance with the Rules of Evidence.

Source: Ohio Revised Code
Title [29] XXIX CRIMES - PROCEDUREChapter 2921: OFFENSES AGAINST JUSTICE AND PUBLIC ADMINISTRATION
What do you do?

- The law says this, but peers/colleagues tell you to not say anything to the police

- What do you do?

Who is most at risk?

- Brother: Retaliation

- John: Exposure to additional violence once he leaves the hospital, by those who originally shot him
<table>
<thead>
<tr>
<th>Domain</th>
<th>Risk factor</th>
<th>Protective factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>History of violent victimization and involvement</td>
<td>High IQ or high grade point average</td>
</tr>
<tr>
<td></td>
<td>Substance use</td>
<td>Positive social orientation</td>
</tr>
<tr>
<td></td>
<td>Antisocial beliefs and attitudes</td>
<td>Religiosity</td>
</tr>
<tr>
<td>Family</td>
<td>Low parental involvement</td>
<td>Connectedness to family or other adults</td>
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<td></td>
<td>Low parental education and income</td>
<td>Perceived parental expectations about school performance are high</td>
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<td></td>
<td>Poor family functioning</td>
<td>Ability to discuss problems with parents</td>
</tr>
<tr>
<td>Peer/School</td>
<td>Association with delinquent peers</td>
<td>Commitment to school</td>
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<td>Poor academic performance</td>
<td>Involvement in social activities</td>
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<td>Social rejection by peers</td>
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<td>Community</td>
<td>Diminished economic opportunities</td>
<td>Social capital</td>
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<td></td>
<td>Low levels of community participation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High level of transiency</td>
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</tr>
</tbody>
</table>

**Table 1** Summary of some of the known risk and protective factors (23, 28, 74)

---

**Social Ecological Model of Health**

**Determinants of Health**

- Policies and Interventions
- Behavior
- Individual
- Social Environment
- Physical Environment
- Biology

**Access to Quality Health Care**
Violence Prevention Initiatives:
The Interrupters

Violence Prevention Initiatives:
Dr. Carnell Cooper
## Appendix E
### List of Tier 1 Core Public Health Competencies Used in CE

<table>
<thead>
<tr>
<th>Domain #1: Analytic/Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the characteristics of a population-based health problem (e.g., equity, social determinants, environment)</td>
</tr>
<tr>
<td>Identify sources of public health data and information</td>
</tr>
<tr>
<td>Describe how data are used to address scientific, political, ethical, and social public health issues</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain #2: Policy Development and Program Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe how policy options can influence public health programs</td>
</tr>
<tr>
<td>Explain the expected outcomes of policy options (e.g., health, fiscal, administrative, legal, ethical, social, political)</td>
</tr>
<tr>
<td>Gather information that will inform policy decisions (e.g., health, fiscal, administrative, legal, ethical, social, political)</td>
</tr>
<tr>
<td>Participate in program planning processes</td>
</tr>
<tr>
<td>Incorporate policies and procedures into program plans and structures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain #3: Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate in writing and orally, in person, and through electronic means, with linguistic and cultural proficiency</td>
</tr>
<tr>
<td>Solicit community-based input from individuals and organizations</td>
</tr>
<tr>
<td>Participate in the development of demographic, statistical, programmatic and scientific presentations</td>
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<tr>
<td>Apply communication and group dynamic strategies (e.g., principled negotiation, conflict resolution, active listening, risk communication) in interactions with individuals and groups</td>
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<table>
<thead>
<tr>
<th>Domain #4: Cultural Competency</th>
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</thead>
<tbody>
<tr>
<td>Incorporate strategies for interacting with persons from diverse backgrounds (e.g., cultural, socioeconomic, educational, racial, gender, age, ethnic, sexual orientation, professional, religious affiliation, mental and physical capabilities)</td>
</tr>
<tr>
<td>Recognize the role of cultural, social, and behavioral factors in the accessibility, availability, acceptability and delivery of public health services</td>
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<tr>
<td>Respond to diverse needs that are the result of cultural differences</td>
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<tr>
<td>Describe the dynamic forces that contribute to cultural diversity</td>
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<tr>
<th>Domain #5: Community Dimensions of Practice</th>
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<tbody>
<tr>
<td>Recognize community linkages and relationships among multiple factors (or determinants) affecting health (e.g., The Socio-Ecological Model)</td>
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<tr>
<td>Identify stakeholders</td>
</tr>
<tr>
<td>Collaborate with community partners to promote the health of the population</td>
</tr>
<tr>
<td>Identify community assets and resources</td>
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<tr>
<td>Gather input from the community to inform the development of public health policy and programs</td>
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<tr>
<th>Domain #6: Public Health Sciences</th>
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<tbody>
<tr>
<td>Identify the basic public health sciences (including, but not limited to biostatistics, epidemiology, environmental health sciences, health services administration, and social and behavioral health sciences)</td>
</tr>
<tr>
<td>Describe the scientific evidence related to a public health issue, concern, or, intervention</td>
</tr>
<tr>
<td>Retrieve scientific evidence from a variety of text and electronic sources</td>
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<tr>
<td>Partner with other public health professionals in building the scientific base of public health</td>
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<tr>
<th>Domain #7: Financial Planning and Management</th>
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<tbody>
<tr>
<td>N/A</td>
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<tr>
<th>Domain #8: Leadership and Systems Thinking</th>
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<tbody>
<tr>
<td>Incorporate ethical standards of practice as the basis of all interactions with organizations, communities, and individuals</td>
</tr>
<tr>
<td>Participate with stakeholders in identifying key public health values and a shared public health vision as guiding principles for community action</td>
</tr>
<tr>
<td>Use individual, team and organizational learning opportunities for personal and professional development</td>
</tr>
<tr>
<td>Participate in mentoring and peer review or coaching opportunities</td>
</tr>
<tr>
<td>Describe the impact of changes in the public health system, and larger social, political, economic environment on organizational practices</td>
</tr>
</tbody>
</table>