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Academy on Violence and Abuse, Highlights of Proceedings from the 2009 Conference: *Sowing Seeds of Academic Change-Nurturing New Paradigms*

In 2002, the landmark Institute of Medicine (IOM) report, *Confronting Chronic Neglect: the Education and Training of Health Care Professionals on Family Violence*, revealed the paucity of research available to document the toll that family violence exacts on individuals, society, public health, and health care systems. The report concluded that violence and abuse remains a woefully underresearched problem. Similar challenges exist with respect to the development and implementation of curricula on family violence. According to *Confronting Chronic Neglect*, studies have demonstrated that "health professionals and students in the health professions often perceive existing curricula on family violence to be inadequate and ineffective" and "evaluation of the effects of training has received insufficient attention." (Cohn, Salmon, & Stobo, 2002)

Three years after the publication of this report, a group of 20 health care professionals and academicians responded to the IOM's call by creating the Academy on Violence and Abuse (AVA). The mission of the AVA is to advance health education and research on the prevention, recognition, and treatment of the health effects of violence and abuse.

In late April 2009, the AVA held its first scientific conference, "Sowing Seeds of Academic Change: Nurturing New Paradigms," where more than 30 speakers from the United States and around the world discussed new research and outlined ways to enhance academic training on violence and abuse. Attendees of the 2-day event represented multiple disciplines, including medicine, nursing, dentistry, social work, psychology, physical therapy, public health, academia (e.g., faculty and deans), and violence prevention advocacy. The following proceedings include summaries of keynotes and the academic and health economics panels.

It is All About the Money

Richard Krugman, MD

University of Colorado School of Medicine. *Medical schools and other health profession schools rarely have family violence substantively integrated into their core curricula. This presentation discusses the mechanics of curricular change in our institutions, how supply and demand affect quality improvement in higher education, and why health profession schools may not have family violence at the center of their curricula as they look ahead to the future.*

As health professionals and experts immersed in violence and abuse research and education, we often have a similar view of the world. It is been my experience that we regard violence and prevention as half the world, and how we relate to the rest of the world is only from this perspective. Instead of offering justifications for this noble but narrow approach, this presentation is designed to offer insights into why family violence continues to orbit around—rather than constitute the core of—21st century medical school curricula.

In the early 20th century, thanks in large part to Abraham Flexner's report on medical education in the United States and Canada, the responsibility of medical school curricula fell into the hands of faculty instead of administrators (Flexner, 1910). Departments taught required courses, and individual faculty developed electives on the basis of their area of interest. Having a department meant you would have the opportunity to develop and teach a course.

All this changed in the latter part of the 20th century, when the Liaison Committee on Medical Education began requiring that deans of medical education maintain central management and control of their school's curriculum. Theoretically, at that point in time, every one of the 129 deans that were in the United States could have brought family violence and abuse into their schools' core curriculum. In reality, however, only one of them did.

While deans were deciding how to shape their school's curricula, child abuse and family violence were making their indelibly dismal marks on society. By the latter half of the 20th century, health care professionals recognized that violence and abuse were public health problems. Sadly, in many ways, the medical community and medical schools got stuck at this recognition stage. Although 95% or more of the U.S. population knows that family violence exists, we do not know why it happens or how to deal with it because health professions schools and other stakeholders do not have the research or basic academic training to explore these questions rigorously.

Today, the majority of medical school curricula are competency-based, which means that students cannot complete

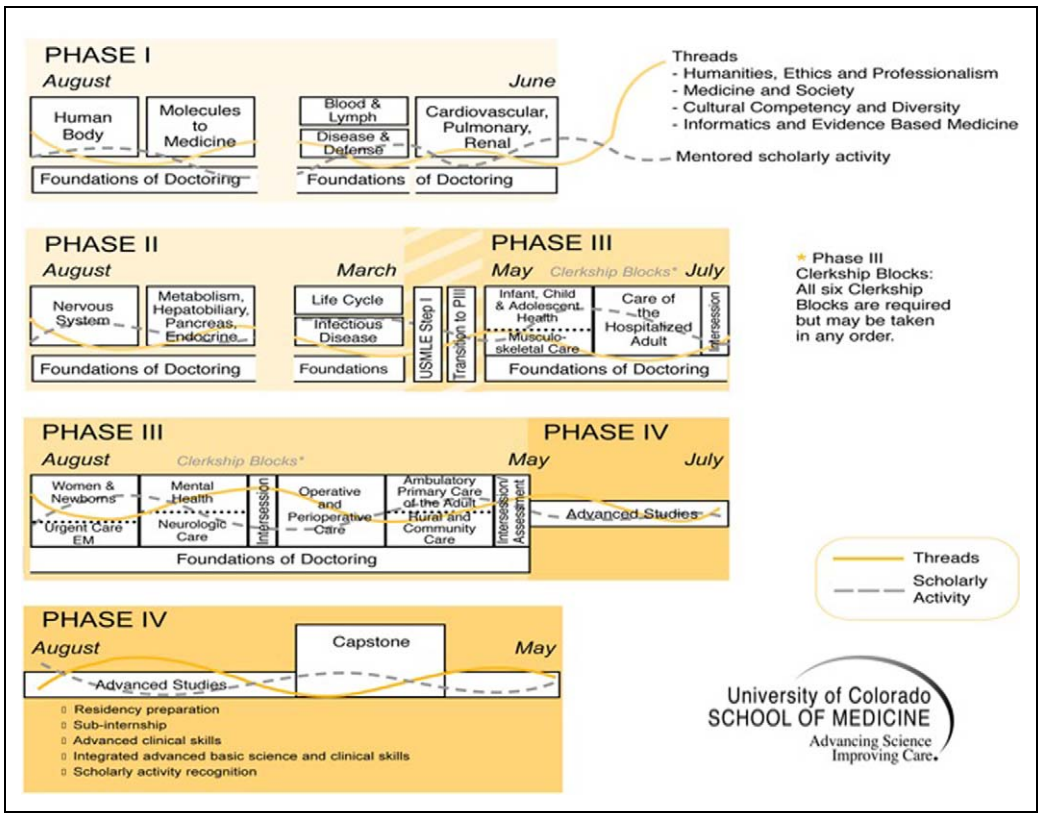

Figure 1. Integration of teaching about violence and abuse throughout the medical school curriculum.

medical school without hearing about child abuse or family violence. That said, chances are slim that students will get more than a lecture or two about the topic. One institution hoping to change these odds is the University of Colorado–Denver School of Medicine, where education on violence and abuse has been incorporated within "threads" throughout various segments of the medical school curriculum (Figure 1).

Creating innovative programs like the University of Colorado–Denver's can be difficult to attain if money is not showing the way. The reality is that in the absence of funding streams for research and training, medical school chairs and/or deans will not invest in the programs that focus on violence and abuse because those programs produce little return on investment. To combat this perception, we must repackage the field of domestic violence and abuse as health problems that are both preventable and treatable. Unless we reformulate the problem as a health care issue—and subsequently develop a funding stream to address it—we simply will not get to where we all want to be in tackling this enormous public health challenge.

Dreams for the Next 5 Years

Jacquelyn Campbell, PhD, RN, FAAN

Johns Hopkins University School of Nursing. *In this presentation, Dr. Campbell outlines a best-case scenario for the next 5 years: an academic, clinical, and research environment where domestic violence takes priority—and where progress gained thus far is used as a springboard for future successes.* From 1976 to 2005, the rate of intimate partner homicides declined in the United States, and according to the National Crime Victimization Survey, intimate partner violence has decreased overall between 2000 and 2005. (U.S. Department of Justice, 2009) These downward trends can, in part, be attributed to the increase in domestic violence laws and resources. Although this is good news, it remains imperative that we put violence and abuse at the center of the national health agenda. Not to do so could mean risking undoing the progress that has been made these last three decades.

My dream for the next 5 years is to see the prevalence rates continue to decrease, to see fewer health care consequences and costs associated with domestic violence, to bring more recognition of family violence as a driver of major health problems and disparities, to have more prevention and intervention programs for domestic violence in the health care system, to participate in and witness more interdisciplinary collaboration, and to see more education of health care professionals in the area of intimate partner and family violence.

With every milestone reached comes a new challenge to surmount. In the area of funding, health disparities need priority attention. In the area of publications, researchers must present more articles in special issues and high-impact journals. Virtually all of the accomplishments we have achieved should include a disclaimer that says "not enough." Of paramount

importance to advancing our progress is data collection. When the research accompanies the academic and clinical attention, we will know that we have made great strides.

Addressing Academic Research on Violence

Richard Gelles, PhD

University of Pennsylvania School of Social Policy and Practice. *Before a community can effectively address any problematic issue in society, that societal challenge must undergo three stages of development. This presentation discusses these developmental stages and how the absence or slow pace of the data-gathering stage (Stage 2) becomes a common misstep on the path toward effective policy development.*

I have a prediction: The academic advocacy to do something about violence will not originate from the arts and sciences; it will originate from the health care professions. In addition, it will be the basic discipline education in the health care professions, not a newly created subspecialty that will carry the day. The basis for making this prediction stems from an often-overlooked fact: the rules of evidence in a discipline must come first; those of the subspecialty must come second. Only when the evidence is present can we build a base for advocacy.

Before a societal issue such as domestic violence can be designated as a problem that a community will address, it must undergo three stages of development. Stage 1 involves moving the issue from a personal trouble to a societal problem. Stage 2 entails gathering evidence and expanding the scope of the problem, thus establishing awareness at a societal level. In Stage 3, the final stage, the community begins to do something about it—through, for example, the development of policies and programs.

After Stage 1 is reached, a major pressure ensues. Always, the drive to achieve at Stage 3—to develop policies to rectify the problem—runs at an exponentially faster speed than the research community can keep up with. Thus, the evidence-gathering aspects of Stage 2 are often neglected. In the case of child maltreatment and domestic violence, researchers kept up with the pace of policy development until the late 1970s, at which point "doing something about it" took off and left research in the dust. In the absence of evidence—and amid a great deal of broadcast advocacy—came little educational development. Ultimately, that paucity in education created a disconnect in the way the field of domestic violence created theoretical models, built its advocate and practitioner base, and enacted policies and practices.

The evidence associated with child maltreatment and domestic violence is filled with anecdotes and very little rigor. The first good fundamental pieces of research often set the path for future investigators to follow, but it doesn't mean that the first good piece of research is the only good one to find. What is not happening enough in the textbook, classroom, and field is to stop and question whether a program or policy was ever or still is effective, to call for new and better evidence and research, and to adopt the concept of evidence-based practice and policy.

Is there a future for evidence-based research and policy? I believe there is, primarily because there is a greater call for accountability from the government and an increased demand for efficient and effective philanthropy. The task is to demonstrate that what you are doing actually moves the needle in some way. It is no longer sufficient to bid for attention because domestic violence is a problem that hurts people. You had better have evidence and accountability if you are going to hold your place on the public agenda. Because that spot is fleeting.

Educating and Motivating the Domestic Violence Workforce

Richard Gelles, PhD

University of Pennsylvania School of Social Policy and Practice. *Motivating a workforce within the umbrella of domestic violence remains a challenge. The reasons stem from issues involving admissions and recruitment, retention of properly trained staff, and curriculum development. This presentation discusses these issues and offers a final caveat, advocating that the most current evidence-based material must enter into health professions' curricula to ensure the most effective training in domestic violence fields.*

This presentation has a primary take-away point: Offenders and victims of domestic abuse, elder abuse, and child abuse live in different systems, not within a single discipline. There is a disconnect between higher education and the workforce, in that higher education still organizes itself around disciplines, whereas the workforce has to attend to women and children and offenders who live across systems. Although we are good at rolling out our discipline-based interventions, we are not adept at rolling out a talented, motivated, workforce because we tend to train them within the narrow silo of our particular discipline.

When I think of the workforce within the domestic violence arena, I think of what Woody Allen said about the food in the Catskills: It is small, and it is not particularly good. Yes, there are great people working to prevent and eradicate domestic violence, but even the great people have their shortcomings because they have been trained within the framework of a single discipline.

Being a dean gives me the opportunity to leverage more to create a motivated and educated workforce. In the process of trying to carry out this mission, I have discovered three critical problems:

Problem #1: Recruitment and admissions. Generally, not many people who apply to graduate school note on their application: "I am interested in child welfare, domestic violence, and elder abuse." If they do, you have to be very careful. Professional graduate education is not a place where you pay an exorbitant amount of money for additional therapy. Many of the applicants who want to work in this field have not yet healed. We cannot be in the business of healing them through their field practices, because by October of their first year, they will hit a wall, and then they become clients.

Problem #2: Getting trained people good jobs. Currently, there are no logical career paths for our graduates in medical

school, social work, psychology, and law and nursing schools. The child welfare system absorbs thousands of workers and turns them over at a 50% rate each year. You can motivate someone to join the system, but it is hard to keep him or her motivated to stay. Part of the problem with the workforce involves supervisors. Unless they can be good mentors, turning out line workers is going to be insufficient.

Problem #3: Curriculum, curriculum, curriculum. I consider myself to be a family violence person who talks about the big tent. At the University of Pennsylvania, we have the Field Center for Children's Policy Practice and Research, and we have the Evelyn Jacobs Ortner Center in Family Violence. However, the silos still exist—in terms of the degree of freedom we have in our curriculum and in the funding streams. The best thing we can offer is an interdisciplinary education across the curriculum, forcing our students out of their comfort zone, so they can go to the medical school, to the law school, or to the nursing school, understanding that clients live across systems.

One last caveat: The great mythology of child abuse and domestic violence is not yet titrated out of the course materials. There is a lag between the times that it takes researchers to complete their work and the time it winds up in textbooks. We need to jump over the existing textbooks and offer much more evidence-based material. Our students are going into a much more sophisticated, accountable world, and we need to prepare them for that.

The Role of HIV, Substance Abuse, and Culture in Violence: Implications for Educating Health Professionals

Nilda Peragallo, DrPH, RN, FAAN

University of Miami School of Nursing and Health Studies. *This presentation covers what the University of Miami's School of Nursing and Health Studies has learned while doing research with Latina women and HIV/AIDS—and how family violence plays a factor within this work.*

The purpose of this presentation is to discuss the research program with Latino-diverse communities and analyze future opportunities and challenges in research with diverse communities. Currently, our team of researchers has funding through El Centro, whose primary mission is to advance development and evaluation of culturally tailored interventions in behaviorally rooted health conditions that disproportionately affect Hispanics. Research areas include substance abuse, HIV/AIDS and sexually transmitted infections, family and intimate partner violence (IPV), and concurrent mental health conditions that affect and are affected by these other conditions. Why culturally tailored interventions? There are a few reasons:

- Hispanics have unique values, beliefs, behaviors, and histories that directly affect health and the efficacy of interventions.
- Few intervention research studies have sufficiently large Hispanic subsamples to evaluate the efficacy of interventions for Hispanics.
- Interventions that have not been designed for or adequately tested on Hispanics are probably not ready for widespread utilization for Hispanics.

Our team aims to develop knowledge on the mechanisms of culture-related processes and to train the next generation of health disparities researchers. By having a center devoted to research among Latino communities, we have incorporated measures that we can use across studies. This approach helps us create a library of measures that do not yet exist with this population.

It is imperative that we study HIV/AIDS in Latina women. Latinos account for a growing share of AIDS diagnoses, from 15% in 1985 to 19% in 2006. The estimated prevalence of AIDS among Latinos increased 27% between 2002 and 2006 (Kaiser Family Foundation, 2009).

One study coordinated through El Centro was the Drogas y Violencia en las Americas (Drugs and Violence in the Americas, or DYVA) project, which explored the collective and individual experiences of Latinas with substance abuse, violence, and risky sexual behaviors. It involved a heterogeneous sample of Latinas, ages 18 to 60, residing in the Broward/Miami-Dade area. Common baseline findings from the DYVA focus groups and from previous work conducted by El Centro investigators included the pervasiveness of physical and psychological violence, cultural norms and acculturation, machismo and male infidelity, alcohol and drug use, barriers to accessing health care, and social discrimination among peers.

Studies such as DYVA demonstrate that HIV/AIDS prevention interventions must be culturally tailored to the targeted population of the intended program. Canned interventions are no longer sufficient. We need to change the paradigm, taking into account the cultural and sociological factors at play, not just with this population but also with others. The solutions will not come easy, but there are ways that these challenges can be addressed. Interventions for HIV/AIDS must include populations experiencing disparities, especially including those who may have language barriers and decreased access to care. We must also have researchers who are from these populations, who understand the health disparities and cultural issues that influence HIV prevention. Finally, community-based organizations and health departments need to be ready to implement interventions at the community level.

Lessons Learned from Geriatrics

Robert Butler, MD

International Longevity Center. *In this presentation, Dr. Butler discusses how the lessons encountered in the study of geriatrics can be applied to the field of violence and abuse prevention.*

I want to start my presentation by touching on the simple fact of denial. I mention denial because violence and abuse is painful, not only for families and individuals who experience it, but also

for those who witness it, and even for those who are recognizing abuse in our society and trying to do something about it. Still, as most of you know, it is denial that must be confronted if we are to address public health challenges appropriately within our society.

As I am sure you are also aware, we are in the midst of a longevity revolution, which, incidentally, has also been complicated by a substantive dose of denial. Soon, one out of every five people in the United States will be over 65. Before the day is over, there will be 12,000 more baby boomers who will turn 63. From a public health perspective, these facts place us in a precarious position. The 2008 Institute of Medicine report, *Retooling for an Aging America: Building the Health Care Workforce*, concluded that the future workforce "will be woefully inadequate in its capacity to meet the large demand for health services for older adults if current patterns of care and of the training of providers continue."(Institute of Medicine, 2008)

The International Longevity Center, and in large part the National Institute on Aging (NIA), has also been studying the health of older community residents. Before 1955, no one had actually studied these individuals. Today, we have 30 to 35 schools with strong programs in geriatrics and gerontology, most of whom are able to apply successfully for the billions of dollars that we now have at the NIA. The NIA also created the Geriatric Medicine Academic Award, which helped create an infrastructure for American geriatrics in the years that followed. The recipients of these awards now direct programs in geriatrics.

Perhaps the biggest lesson that the violence prevention community can glean from the academic geriatrician's path involves understanding what defines success in the field and what you need to do to achieve that success. To make a difference as an academic geriatrician, you have to create a stream of data that allows you to be competitive at the National Institutes of Health. To do this requires a little bit of magic that I call the Geriatric Academic Career Award. Funded by the Health Resources and Services Administration, the 5-year award dramatically improves your chance of becoming an academic in the medical school community. Even though the award is provided to individuals, its long-term effect improves the public health outlook of geriatric care as well. We do not need to have a whole new practice specialty in geriatrics, after all. We need a major group of academic geriatricians, teachers within each of the 145 medical schools, so that we can be certain that no one graduates from medical school or from a residency program—whatever the specialty be—without understanding the basics of aging. And those basics apply not only to the biology of aging as it relates to various diseases but also the social, economic, and other aspects that are so critical in helping older people and their families.

The applicability of this award to the field of violence prevention is not difficult to discern. You can apply for it now if you are a physician, and if you can study something such as end-of-life care within the context of this award, you can also develop proposals that can educate other physicians about the need for prevention of elderly abuse.

Whether it is for children, women, or elders, we need to expand the perspective of this field. Within the awards that we receive for geriatric or other academic study, it is more than appropriate to have the topic of violence and abuse covered—not just for doctors but for social workers, nurses, psychologists, and others—because addressing family violence requires an interdisciplinary focus.

For all of those who have taken on family violence prevention as their career (and life's) mission, I most assuredly wish you well. I cannot think of another topic more important than the one you are all addressing.

Teaching about Violence and Abuse: Lessons Learned from Nursing

Janice Humphreys, RN, NP, PhD, FAAN

University of California—San Francisco School of Nursing.

Coming to an understanding about the best way to incorporate violence and abuse education into nursing curricula requires an awareness of how we arrived at where we are today. This presentation discusses the evolution of nursing knowledge on family violence and what insights may be gleaned from retracing this history.

There is no question that nursing knowledge and education on family violence has evolved; what is often missing in this awareness, however, is the fact that we can learn tremendously from what we have accomplished in the past. It is by reviewing the evolution of our progress that we can contemplate best strategies for curricular content and teaching. Going back three decades, one can see how far we have come in shifting the contextual paradigm that was in place with family violence.

As late as the early 1970s, violence and abuse were being viewed as strictly criminal problems best tended to by the judicial system. *In the mid-1970s*, researchers began finally to view family violence as a complex interplay of interpersonal violence and family system dysfunction within a societal context. Nursing research was instrumental in creating this critical shift in thinking. *The late 1970s* also marked the first published domestic violence research in nursing. In a 1977 issue of the *American Journal of Public Health*, Barbara Parker, RN, MS, and Dale Schumacher, MD, MPH, reported that victims whose mothers suffered from "battered wife syndrome" were statistically more likely to be battered by their husbands. In doing so, the study highlighted the significance of a "vertical transmission" of battered wife syndrome within some families. (Parker & Schumacher, 1977) *In 1984*, the reconceptualization of domestic violence was formalized through the publication of *Nursing Care of Victims of Family Violence*. In the book, the authors underscore the societal context and interpersonal relationship basis for abuse, emphasizing that domestic violence requires investigation and intervention at family and societal levels rather than at the individual victim level. *In 1985*, during the first national Nursing Conference on Violence Against Women, the Nursing Network on Violence Against Women was created. This was the first health care

professional organization to specifically focus on intimate partner violence; for their efforts, they were subsequently recognized by the Family Violence Prevention Fund.

From 1995 to 1998, the American College of Nurse-Midwives implemented a domestic violence education module to serve as an education tool for student nurse-midwives as well as certified nurse midwives on the issue of domestic violence. *In 1996*, Woodtli and Breslin published data on violence-related content in nursing school curricula, which they collected from 298 nursing schools nationwide. The authors found that on average, curricula included 2 to 4 hours of content on domestic violence. Clinical experiences were only coincidental, not a part of training formally, and while there was an identified need for faculty development in the area of family violence education, 63% of the schools responding said there was no such development in place. (Woodtli & Breslin, 1996)

In 2002, the Institute of Medicine published its monumental report, *Confronting Chronic Neglect*. (Cohn et al., 2002) Authored by the Committee on the Training Needs of Health Professionals to Respond to Family Violence, it describes the concept of core competencies as a springboard for outlining expectations for training in family violence. The committee divides these core competencies into three levels: basic (for all health professionals), advanced (for those in advanced practice roles), and leadership (for those in family violence specific positions). The report found that while 90% of schools of nursing included intimate partner violence and child abuse content, only a few hours of lecture per program was the norm, and there was little content on elder abuse.

A review of our achievements suggests that programs will be most successful when they address ways of changing behavior and practice in health care delivery, when they use techniques to address practitioners' biases about victims, and when course work is skill-building, practice-enabling, and interactive, with guided clinical experiences and evaluative feedback.

Above all, history reminds us that others before us have led the march to advance family violence education in nursing and other health professions. We need not start from scratch.

Advances in Violence Education in Dentistry

Leslie Halpern, DDS, MD, PhD

Harvard School of Dental Medicine. *The dentist and his or her team are in an ideal position to identify a significant number of patients who have experienced violence and abuse. This presentation (a) outlines the steps that have been taken to provide dentists with the necessary knowledge base for identifying victims of domestic violence and (b) recommends strategies for future curricular pursuits in the area of violence and abuse within dental education.*

A number of factors put dentistry in a pivotal position for detection and prevention of violence and abuse. An estimated 75% of physical abuse cases result in injuries to the head, neck, and/or mouth—areas that are clearly visible to the dental team during examination. With 50% of adults visiting the dentist at least once per year, oral health care providers are in routine contact with affected patients. From a practical perspective, dentists may be the first—or only—point of contact for domestic violence victims in a health care setting, and they may be the most capable of recognizing the signs of abuse.

Despite the unique position that dental professionals have within the arena of violence prevention and detection, studies show that these providers are not always aware of the pivotal role they can play. Tilden and colleagues, for example, gathered data demonstrating that "dentists and dental hygienists are least likely ... to suspect abuse in children, elders, or young adults." (Tilden et al., 1994) Other research found that only a small percentage of providers screen for violence and abuse, even when there are visible signs of head and neck injuries (Love et al., 2001) and reports of child abuse by dental staff comprise less than 1% of all reports made. (Mouden & Smedstad, 2002)

Several consensus statements emerged in response to these alarming findings. In 1996, the American Dental Association (ADA) further developed an educational policy that advised looking for symptoms such as conflicting histories of injury, behavioral changes, multiple injuries at various stages of healing, and recoil behavior during dental examinations. In 1999, the American Academy of Pediatrics and the American Academy of Pediatric Dentistry concurred that "In all 50 states, physicians and dentists are required to report suspected cases of child abuse ... to social service or law-enforcement agencies ... and to collaborate in order to increase the prevention, detection, and treatment of these conditions."

Educators in oral health have also taken a variety of major steps to provide the knowledge base that dentists need to identify victims of domestic violence more effectively. In 1992, for example, the Prevent Abuse and Neglect through Dental Awareness (PANDA) was developed in Missouri. PANDA provides information on the history of family violence in our society, clinical examples of confirmed cases of child abuse and neglect, and discussions of legal and liability issues involved in reporting child maltreatment. As of January 2004, 46 states and several international coalitions have replicated Missouri's program.

Implementation of PANDA and other initiatives may be paying off. In 2008, Gibson-Howell and colleagues published data from surveys conducted among U.S. dental schools. By 2007, the authors found that 96% of dental schools included some curricula on child abuse. (For intimate partner violence and elder abuse, the percentage was unknown.) In dental hygiene schools, 70% had curricula in child abuse, 54.9% included elder abuse, and 46% included intimate partner violence. The topics relevant to the domestic violence part of the dental curricula included the (a) responsibility of the health care professional, (b) physical and behavioral indicators, and (c) prevalence (Gibson-Howell, Gladwin, Hicks, Tudor, & Rashid, 2008).

Through the observation of what works and does not work within dental schools today, a few strategies and approaches for

future curricular pursuits can be outlined: (a) Change the learning environment. Minimize a formal lecture format to one that invites speakers from the community. (b) Convert lecture format to student-centered. Employ ''real-life'' scenarios via mock interviews, work in a community service/ shelter clinic environment, and outreach vans. (c) Develop a standard template/protocol/Web/DVD that measures such critical risk predictors as injury location and identifies other health risk predictors. (d) Consider ''asking'' to be an intervention. Studies demonstrate that abused women want their providers to query them about IPV. (Kwon Hsieh, Herzig, Gansky, Danley, Gerbert, 2006) (e) Make a connection between patients' previously incomprehensible symptoms and exposure to violence/ abuse; it may have a significant therapeutic effect. (f) Ensure that education on domestic violence is ''standardized and incorporated into dental school and continuing education curricula, thus normalizing intervention with victims and making it a standard part of a dentist's/oral health care providers professional responsibility.'' (US Department of Justice, 2004)

Introducing Violence and Abuse Education into Medical Education

Charles P. Mouton, MD, MS

Howard University College of Medicine. *This presentation discusses the requirements for violence education in medical school curricula, identifies ''access points'' for incorporating violence education into standard medical education models, and explores innovative strategies for integrating violence education into mainstream medical education curricula.*

Now more than ever, it is critical that we provide education on violence within medical school curricula. Health professionals are often the initial surveillance mechanism for identifying that violence and abuse is occurring in a family. Perhaps because of this role that we play, we are taking it upon ourselves to understand more about the health effects of violence and to appreciate the costs—both indirect and direct—associated with violence in our world.

The Liaison Committee on Medical Education (LCME), an accrediting body for educational programs at schools of medicine in the United States and Canada, has a provision in its Standards of Accreditation, which reads as follows: ''The curriculum must prepare students for their role in addressing the medical consequences of common societal problems, for example, providing instruction in the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse.'' I would argue that this statement should be changed to read, ''The curriculum must prepare students for their role in addressing the medical consequences of common societal problems **by** providing instruction in the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse.''

Until the wording of the provision is changed, we are left with the reality that violence education is not a mandatory requirement for medical school curricula. Fortunately, most medical schools understand the importance of incorporating violence education into their curricula. In a study of 64 medical schools reporting on their domestic violence curriculum, 63 indicated that domestic violence was part of the required coursework. One school reported domestic violence education as being an elective. Of those who responded:

- 12.7% of schools indicated that they provided domestic violence education in the first year of medical school;
- 34.5% indicated domestic violence was taught in the second year;
- 48.7% of schools taught domestic violence in the third year;
- 3.8% offered curricula on domestic violence in the fourth year of medical school.

Current curricular ''access points'' are numerous. They can be at the preclinical course level—in such coursework as ''doctoring/patient care'' or behavioral sciences classes—or they can be during clinical rotations (e.g., in ambulatory medicine, emergency medicine, family medicine, pediatrics, psychiatry, or obstetrics/gynecology). Curricula are also being integrated into electives, such as dermatology courses. Future access points could include electives in radiology, pathology, and geriatrics or in courses on ethics or professionalism. The options abound. At Howard University, a health care ethics course is offered during students' clinical years. It is an interdisciplinary course, with students and faculty from medicine, nursing, dentistry, pharmacy, and allied health. The format includes large-group lectures followed by small-group discussion that is designed to mimic an ethics committee meeting. Innovative violence education could have a similar structure as Howard's health care ethics course. Large-group lectures would cover various types and effects of abuse, as well as what the appropriate response would be to the awareness of that abuse. Small-group discussion would mimic death review panels. Visual presentations would play a role. Videos, photos, and victims' clinical presentation would evoke emotional response while having cognitive effects.

Although the components seem unique and separate, each strategy within the curriculum would need to emphasize clinical competencies. These competencies include the following:

- **Basic competencies**—Engaging and communicating effectively as professionals and applying scientific method and knowledge to problem solving
- **Component competencies**—Taking a clinical history, performing a mental or physical exam, interpreting clinical tests, performing basic procedures, and managing clinical information
- **Physician Competencies**—Diagnosing clinical problems, pursuing intervention, and formulating a prognosis
- **Advance Competency**—Providing care within the practice context

Other strategies include service-learning opportunities (working in domestic violence shelters, for example), student research,

and student advocacy (through such groups as Women in Medicine, American Medical Student Association, the Student National Medical Association, and specialty interest groups).

Regardless of how the content is shaped and implemented, education on violence and abuse should be a required part of every medical school curriculum. Although any new curricula on violence and abuse should emphasize the core competencies and provide some experiential learning, research is needed to determine the best location in the curriculum to prepare students to address this public health problem of violence and abuse in their communities.

The Economic Impact of Violence: Gaps in Our Knowledge and Next Steps for Research

Amy Bonomi, PhD, MPH

Ohio State University. *This presentation discusses a study conducted by the author, which examined the relationship between child abuse history and health care use and costs in adulthood. The research was embedded into a much larger investigation, which was designed to demonstrate the burden of intimate partner violence for women and their children from the perspective of health plans.*

Prior research shows a high prevalence of child abuse history among women and an association between having a child abuse history and increased health care utilization and costs in adulthood. When Walker and colleagues analyzed the health care use and costs in women who had a history of sexual abuse in childhood, they found that those women had health care costs that were 18% higher compared with women who did not have those histories (Walker et al., 1999) Another investigation, a large population-based study, examined the relationship between physical abuse only, sexual abuse only, and physical and sexual types of abuse and women's self-reported use of health services in adulthood and the cost of those services. The study found that women who had both physical and sexual abuse in childhood had annual health care costs that were double compared with women who did not have those histories. (Tang et al., 2006)

Our study expanded upon prior research by using automated data from health plan records to examine the health care use and costs associated with three types of childhood abuse—physical only, sexual only, and physical and sexual abuse—in a large population-based sample of women. We followed women into late middle age so we could get an extended picture of how abuse presents in health settings across middle age.

Study design. We used a retrospective cohort of about 3,333 women randomly sampled from Group Health Cooperative enrollment records. The women had to be enrolled in the health plan for at least three years for us obtain enough health care use data to stably estimate costs and health services use. Women were asked to participate in a telephone survey to assess their history of abuse.

The child abuse assessment included two questions from the CDC Behavioral Risk Factor Surveillance Survey. The first question addressed physical abuse history. We asked, ''Before you were age 18, were you punched, kicked, choked, or did you receive more serious punishment from a parent or guardian?'' The second question addressed sexual abuse: ''Before age 18, did anyone ever touch you in a sexual place or make you touch them when you did not want to?''

We created four exposure groups. Women who said yes to the first question only were classified as having physical abuse only. Women who responded yes to the second question only were classified as having sexual abuse only. Women who said yes to both questions were classified as having both physical and sexual abuse. The reference group comprised women who said no to both questions.

We did not ask about other types of childhood abuse, such as emotional abuse, neglect, and other forms of maltreatment, as the study was focused principally on intimate partner violence and health.

Data gathering. We assembled health care use data from automated health plan data dating from January 1, 1992, to December 31, 2002. The services assessed were for primary care, specialty care, mental health, pharmacy, inpatient, and emergency department use.

For annual health care costs, we allocated costs for each unit of service used by women. All costs were adjusted to 2004 US dollars, using the Consumer Price Index for the Seattle/Tacoma area.

Data analysis. For statistical analyses of the data, we (a) estimated *unadjusted annual health care costs, which provide* a real-world dollar amount for each of the different abuse exposures and (b) conducted *a multivariable analysis for both costs and health care use*. For costs, we looked at the cost of exposed groups relative to unexposed groups using cost ratios. For health care use, we used two modeling procedures. For less frequently used services such as mental health visits, we estimated any use of such services using relative risks. For commonly used services, such as primary care visits, we estimated how many services were used using incident rate ratios. All of our multivariable models were adjusted for age, education, and calendar year. What that means is that the differences that occurred across the exposure groups existed after we considered age, education level, and the time of year—the important correlates of health care use.

Results of the study. The research yielded some important findings regarding the health care costs and use:

- *Population characteristics*. Overall, 34% of the women reported some type of physical or sexual abuse before age 18. We observed no differences between the groups with respect to age or education. The average age of women in the study was about 47. This is a very highly educated sample; most of the women had completed at least some

college. We did find that women who experienced some form of physical abuse—either physical only or physical and sexual—were less likely to report that they were of White race ethnicity compared with the nonexposed group. We also found that women who had physical only, sexual only, or both types of abuse had a higher prevalence of depression and higher mean body mass index compared with women without such histories. The highest prevalence and mean body mass index was seen in women who had both physical and sexual violence in childhood.

- *Adjusted cost ratios*. Relative to nonabused women, women with child abuse exposure had significantly increased total costs, with the highest costs observed for women who reported both physical and sexual abuse before age 18. They spent on average 36% more per year compared with women who did not report such histories. We also observed significantly increased primary care costs for women with child abuse histories relative to nonabused women. For specialty care and pharmacy services, we observed significantly increased costs for women who had sexual violence histories—either sexual only or physical and sexual violence.
- *Health care use*. We observed significantly increased use of primary care services for women with abuse histories, with the highest service among women with both physical and sexual abuse histories. They used on average 41% more primary care services compared with the nonabused group, but there were significant increases for the physical abuse only and sexual abuse only groups as well. Especially striking to us is that women who had some type of physical abuse exposure—either physical only or physical and sexual abuse—used mental health services at two times the rate that nonabused women did.

There are important take-away points from this summary of findings. The first point, and perhaps the most concerning one, is that women with a physical abuse health history used mental health services significantly more than those who did not have a physical abuse history. Second, these findings validate suggestions that children suffering abuse be evaluated by a mental health professional to prevent abuse from recurring. Third, among women with high utilization of health services, providers should be screening for a child abuse history as well as for intimate partner violence on the basis of what we gleaned from other components of this study.

The Economic Impact of Violence

Phaedra Corso, PhD

University of Georgia. *This presentation discusses the effectiveness of using economic impact analyses to determine the medical costs associated with violence and abuse in the United States. It also identifies gaps in knowledge surrounding the economic impact of violence and abuse in society.*

Economic impact analysis, as a component of the public health model (see Figure 2) further helps in identifying the burden of a public health issue in terms of morbidity, mortality, and economic factors. When we use terms such as economic impact analyses in the United States, we are typically referring to (a) medical costs associated with illness and injury (e.g., inpatient, outpatient, mental health and prescription drug costs), (b) losses in productivity (e.g., presenteeism [ability to function and be productive] and absenteeism from work or school), and (c) nonmedical costs (e.g., costs for the legal and justice system and child-welfare services).

Reporting of economic impact analyses includes two mechanisms: prevalence-based costs of violence and incidence-based or lifetime costs of violence.

Prevalence-based cost data looks at cross-sectional data primarily. It includes all costs within a particular time period (e.g., one year), regardless of when that violent event occurred and is most useful for thinking about resources required for treatment within a particular time period.

Incidence-based, or lifetime, cost of violence assesses all immediate and future costs of violence that occurs within a particular time period (e.g., one year) to determine the long-term costs associated with that form of violence. Incidence-based estimates are critical when we are determining potential savings for prevention. It is not enough to use only the prevalence-based estimate because it does not help you accurately arrive at those long-term costs.

There are three methods for assessing medical costs associated with violence: (a) summing all medical costs, (b) summing only diagnosis-specific medical costs, and (c) attributable fraction.

Dr. Bonomi's presentation (see page 8) provides an excellent example of research that sums all the medical costs for an abused population compared with a nonabused population. These analyses are effective in creating relative comparisons, in understanding the effects on the health care system, and for tracking, over time, how costs play out in an abused versus nonabused cohort. Summing all medical costs also is helpful when determining the percentage of total costs borne by Medicaid or by private-sector health insurance companies.

In summing only diagnosis-specific medical costs, researchers assess only those health care costs that are specifically tied to violence with a diagnostic code. This method involves looking at total related medical and productivity costs for all victims. It also allows you to tease out the percentage of national health expenditures that are specifically targeted to violence.

The last method for assessing medical costs in an economic burden analysis is attributable fraction, which, in addition to the direct medical costs of violence, includes the indirect health expenditures associated with violence that materialize through other conditions or diseases. In the case of violence and abuse, the attributable fraction for mental health, for example, is added to the total diagnosis-specific medical costs.

The benefit of attributable fraction data is that it deals directly with comorbidities, which are difficult to measure in economic impact analyses. The downside is that attributable

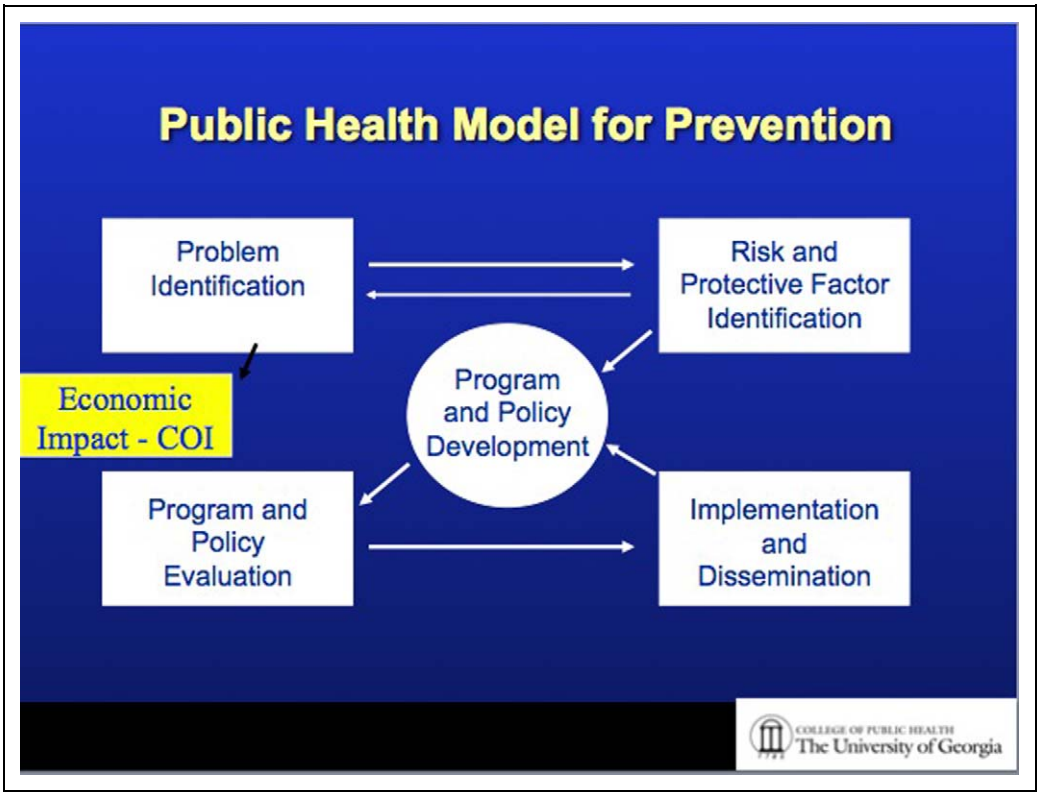

Figure 2. Public health model for prevention. Note: COI = cost of illness or injury.

fraction requires good epidemiologic data that can be translated to population attributable fraction, which does not exist in many cases. Thus, until we have good longitudinal data on population-level risk, arriving at attributable fraction is a little far off for the field of violence and abuse.

Although we have come far, many gaps exist with regard to the economic impact of violence. Attributable fraction and longitudinal economic impact are the first major gaps in data that we have, particularly around depression and drug and alcohol use. Another research gap involves the impact of violence on productivity. Although we may have an idea about how many days victims of violence miss work or school, we do not have concrete data on the economic impact of decreased presenteeism, the loss of functionality and productivity that occurs on the days that victims *do* go to work or school. Perhaps most importantly, we don't have good *long-term data* on the economic impact of violence. Arriving at that data will require solid epidemiologic models, the measures of which health economists can use to assign dollar values.

On the perpetrator side, filling in these research gaps is one way we can influence policy in terms of employer-based interventions. It would be nice to be able to offer data that shows that even though an employee is working, she may not be working at 100% capacity. For example, a colleague and I conducted a pilot study with a group of state health employees, where we compared productivity measures with one's propensity for abusiveness, measured on a well-established scale for abusiveness from the literature. We looked at productivity losses in terms of days of work missed and days where they were not working at full capacity. The study demonstrated a very strong statistical significance between propensity for abuse and productivity loss. (Rothman & Corso, 2008) This type of information is useful to demonstrate that providing interventions to impact violence and the propensity for violence may actually help employers' bottom line.

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Bios

Tasneem Ismailji MD, MPH (Chair, AVA Conference Planning Committee) is a co-founder of the Academy on Violence and Abuse, and chair of the AVA Education, Research and Scientific Program Committee. She is a pediatrician with extensive time devoted to educating health professionals on the dynamics, health effects and management of violence and abuse. Her other major interest is teen dating violence prevention. As a visiting scholar at Stanford University she initiated and published research on survivors of intimate partner violence.

Michael Callahan has a BS in Biology and an MS in Community Health from the University of Cincinnati. He serves as executive director of the Academy on Violence and Abuse. In his previous experience, he served as Co Principal Investigator on an AHRQ funded investigation of the effects of pay for performance on physician behavior and as executive director of an employer-sponsored quality recognition and reward program that used the dimensions of the Chronic Care Model to evaluate quality of care among clinic systems in the Twin Cities. Mr. Callahan has served as a consultant to the Minnesota Department of Human Services in the development of a risk adjustment system for adjusting capitation for a managed care program for the disabled. He has also served as a CEO of a rural, county-owned, Medicaid only, health maintenance organization.

Jeanne Mettner is an editorial consultant with the Academy on Violence and Abuse. She received her master of arts in journalism from the University of Missouri−Columbia and her bachelor of arts from the University of Wisconsin−Madison. Ms. Mettner has been a medical journalist for more than 17 years. She has served as a managing editor for the environmental health journal *Health & Environment Digest*, a senior editor for the peer-reviewed physician journal *Postgraduate Medicine*, and a publications manager for the Minneapolis-based Park Nicollet Health Services. Currently, she is the principal/owner of Planetary Ink Editorial Services, where she writes and edits medical and health science materials and communications and oversees publications projects for a variety of clients.