The Role of Co-Occurring Substance Abuse and Mental Illness in Violence: Workshop Summary

Division of Neuroscience and Behavioral Health, Institute of Medicine

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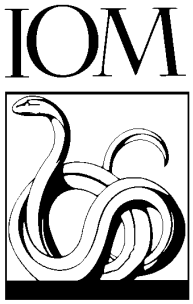
Workshop Summary

June 8, 1999

Division of Neuroscience and Behavioral Health



INSTITUTE OF MEDICINE

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The serpent has been a symbol of long life, healing, and knowledge among almost all cultures and religions since the beginning of recorded history. The serpent adopted as a logotype by the Institute of Medicine is a relief carving from ancient Greece, now held by the Staatliche Museen in Berlin.

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This report has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the National Research Council's Report Review Committee. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making the published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the deliberative process. We wish to thank the following individuals for their participation in the review of this report: Rene L. Binder, Langley Porter Psychiatric Institute; Ann M. Graybiel, Massachusetts Institute of Technology; Herbert D. Kleber, Columbia University College of Physicians and Surgeons; and Wilkie A. Wilson, Duke University Medical Center.

While the individuals listed above have provided constructive comments and suggestions, it must be emphasized that responsibility for the final content of this report rests entirely with the Board on Neuroscience and Behavioral Health and the Institute of Medicine.

The Role of Co-Occurring Substance Abuse and Mental Illness in Violence: Workshop Summary

Violence makes news. With disturbing frequency, violent acts and their aftermath of pain and suffering fill our local and national news. All too often, the reported violence is perpetrated by an individual with a history of mental illness, substance abuse, or both. This connection raises public concerns about the role of mental illness and substance abuse in violent behavior. Although it is evident that a complex linkage occurs among violence and co-occurring drug abuse and mental illness, key questions about the nature of this linkage remain. In addition, the implications of this connection for treatment, criminal justice, and social services need to be carefully considered. On June 8, 1999, the Institute of Medicine's Board on Neuroscience and Behavioral Health convened a workshop on "The Role of Co-Occurring Substance Abuse and Mental Illness in Violence," which explored the linkages between violence and these disorders. The workshop focused on state-of-the-science epidemiology; model treatment programs; public perceptions of substance abuse, mental illness, and violence; and opportunities for future research and developments. The workshop concluded with a discussion of the role the Institute might play in shaping policies for research, training, treatment, and services. This summary reflects the proceedings of the workshop. The descriptions of the studies and the conclusions are those of the speakers. This workshop summary does not present conclusions, recommendations, or consensus statements.

CURRENT RESEARCH

At the workshop, Drs. Kathleen Merikangas, Henry Steadman, John Monahan, and Barbara Havassy described the association of mental illness, drug abuse, and violence. They reported on epidemiological studies that show that the concurrent use of drugs or alcohol by individuals with mental illness significantly increases the incidence of violence. The term "comorbidity" is used to describe a situation in which two disorders, such as mental illness and drug abuse, occur together in an individual. Although

mental illness and substance abuse are considered to be different disorders using current diagnostic guidelines, the boundaries between them may not be so distinct. In fact, workshop participants suggested that mental illness and substance abuse may be two different aspects of a common pathology.

By evaluating how such disorders occur in families and communities, insights as to patterns and sources of comorbidity can be ascertained. Dr. Merikangas reported on epidemiological studies demonstrating strong associations between psychiatric disease and substance abuse. The magnitude of the association increased with greater severity of disease. A retrospective international study examined comorbidity in eight countries (from North and South America and Europe). Despite fairly large differences in base rates among the countries, the patterns of comorbidity were virtually identical. Temporal patterns of comorbidity revealed that anxiety disorders and conduct problems tended to precede alcohol and drug problems, whereas affective disorders both preceded and postdated the onset of substance abuse disorders. Depression was reported equally often before and after the onset of alcohol or drug abuse. Bipolar disorder seemed to precede substance abuse, whereas panic disorders tended to begin subsequent to the onset of substance abuse. However, because the order of onset of the conditions in this study was determined retrospectively, the findings may be subject to recall bias. This limitation could introduce inaccuracies into these data.

To provide a more accurate assessment of temporal and developmental relationships in comorbidity, an ongoing prospective study is tracking children of parents with substance abuse and other psychiatric disorders. Analyses of 8 years of data have begun to demonstrate premorbid risk factors and early signs of emotional and behavioral disorders that may predispose individuals to develop substance use disorders. This study, for example, has shown that persons with anxiety disorders tend to use alcohol and drugs to ameliorate their anxiety, thereby suggesting an important target for early interventions with the primary disorder to prevent the secondary condition.

Drs. Steadman and Monahan presented results of a study on about 1,000 people who had recently been discharged from mental hospitals. The incidence of violence and the impact of substance abuse on violence in this population were examined. Reports from the patients and from a collateral person (i.e., an individual familiar with the patient's activities), as well as official records were collected every 10 weeks for 1 year after discharge. The average hospital stay was 9 days. The incidence of violent acts peaked near the time of hospitalization and decreased throughout the following year.

For each major mental disorder evaluated in the study (i.e., depression, schizophrenia, bipolar disorder), 40%–50% of the patients also had a history of substance abuse. Of those patients with co-occurring major mental illness and substance abuse, 31% committed at least one violent act during the course of the year. When a patient's social context was considered, co-occurring mental illness and substance abuse continued to be associated with a greater incidence of violence. Among individuals *who abused drugs or alcohol,* the incidence of violence was significantly higher in patients with mental illness than in people from the same community without mental illness. Yet, patients without co-occurring substance abuse were only slightly more likely to commit violent acts than were other members of the same community. Dr. Robert Drake pointed out that a dual diagnosis of drug abuse and mental illness was correlated with relapse, violence, incar-

ceration, depression, and suicide. In addition, there is an increased incidence of homelessness and family problems.

Dr. Havassy reported on a preliminary investigation of the perpetration of violence and victimization among outpatients with co-occurring major mental disorders and substance dependence. Soon after entering a short-term residential treatment setting, subjects received psychodiagnostic assessments and were asked about their involvement in aggressive or violent acts and their drug use in the past 30 days. Among the 127 subjects in the study, 49% reported no involvement in aggressive or violent incidents, 25% reported only victimization, 17% reported both victimization and perpetration, and 8% reported only perpetration. Gender, a diagnosis of posttraumatic stress disorder (PTSD), and their interaction emerged as significant risk factors for perpetration of aggression and violence. No other mental or substance use disorder was associated with perpetration. The most striking observation in Dr. Havassy's study was that women with PTSD were 8 times more likely to be perpetrators of violence than were all other subjects

Because a large number of female inmates exhibit symptoms of PTSD and abuse drugs, Dr. Ben Wheat, speaking for the Bureau of Prisons, expressed a specific interest in the relationship between violence and PTSD. As a recent Bureau of Justice report pointed out (P. M. Ditton, *Mental Health and Treatment of Inmates and Probationers*, Bureau of Justice Statistics, Special Report, July 1999), approximately 16% of all state prisoners suffer from mental illness. Dr. Wheat reported that people with mental illness in prison are not generally perpetrators of violence; rather, they are more likely to be victims of manipulation and aggression by other inmates. For this reason, the bureau has implemented a comprehensive program to manage and provide appropriate care for mentally ill prisoners.

MODEL TREATMENT PROGRAMS

The treatment of patients with co-occurring mental illness and substance abuse presents special challenges. Historically, each condition was considered a distinct disorder. Prior to the 1980s, treatment programs were available for either substance abuse or for mental illness, but few, if any, addressed both in an integrated manner. Substance abuse treatment centers were likely to require patients to stop all medications, to the detriment of controlling their mental illness. In addition, patients were sometimes excluded from one or the other program because of the comorbid condition. This separation was caused, in part, by the distinct (and separate) training and funding streams in the two areas. In the mid-1980s, this situation began to change. Some new treatment programs began integrating their services for substance abuse and mental illness. Since 1990, 10 studies have been published pointing to the success of integrated treatment programs. According to CAPT Carol Coley, many programs are now available specifically to treat patients with co-occurring addiction and mental health disorders. The 1997 Uniform Facility Data Set, from the Office of Applied Studies of the Substance Abuse and Mental Health Services Administration (SAMHSA), showed that nearly half of the facilities surveyed provide such programs. Since not all patients have co-occurring disorders, comprehensive assessments, case management, and individualized treatments are necessary. The appropriate delivery of services, *including* an integrated approach, has become a high

priority within the Center for Substance Abuse Treatment and its parent organization, SAMHSA.

Dr. Drake described a prototype of an integrated treatment program. In his judgment, essential elements of an integrated program include *multidisciplinary case management teams* with the flexibility to try different approaches; such teams should include dual-diagnosis specialists. A second characteristic of such a program is *assertiveness*, which means that the program should reach out to its clients to provide practical assistance and close monitoring. Providing assistance for clients within the legal system can also be a component of assertiveness. Third, the program should be *comprehensive* in its approach, encompassing issues of housing, employment, family, as well as motivation for behavioral change. A fourth characteristic is the *staging* of treatment—that is, a recognition of the long-term treatment requirements to ensure a patient's full recovery. Stages of treatment include engagement, persuasion, active treatment, and relapse prevention. The fifth and final component is *shared decision-making*. This element involves creating partnerships between the client and program personnel that provide options for treatment and motivation for recovery.

The Bureau of Prisons is increasingly interested in providing drug abuse treatment programs for the approximately 130,000 inmates in its system. According to Dr. Wheat, the voluntary treatment programs provided during incarceration are proving to be very beneficial. Interim results of a comparison of treatment program graduates with other inmates indicate that in the first 6 months out of custody, there was a 73% reduction in recidivism and a 44% reduction in relapse among graduates. Recognizing the importance of treatment programs, the bureau encourages inmates to participate by offering them a variety of incentives.

The workshop participants agreed that treatment needs to be provided within a broader medical, social, and personal context. As pointed out by CAPT Coley, clients frequently have multiple needs, not just two as suggested by the term "co-occurring." Dr. Steadman noted that situational factors should be evaluated to identify the social support networks that may or may not be available to a patient. Positive and negative interactions with others in the community and with family members, as well as responsibilities such as child care, also need to be taken into consideration in a comprehensive therapeutic approach. Dr. Wheat expressed interest in providing treatment programs to inmates to help them once they are released.

Dr. Drake reported that intensive short-term treatment programs have high dropout and relapse rates. In addition, he noted that programs that lacked motivational interventions were unsuccessful. Dr. Robert Battjes advocated a consideration of risks of violence in the development of specific interventions. Dr. Susan Martin raised the need for measures to prevent violence. An integrated transagency approach to violence and substance abuse was suggested to deal with such issues as domestic violence. CAPT Coley echoed the call for prevention, as well as treatment.

PUBLIC PERCEPTIONS

Development of policy and research directions on the role of mental illness and substance abuse in violence requires an understanding of public attitudes. The 1996 Gen-

eral Social Survey, conducted by the National Opinion Research Center at the University of Chicago (presented by Dr. Bernice Pescosolido) reveals the public's sophistication about these issues. When asked about the mental competence of individuals, the risk of danger they pose, and the need for legal coercion into treatment, people responded differently based on whether the sample vignette described a person with major depression, schizophrenia, drug dependence, alcohol dependence, or just daily "troubles." The respondents had the least confidence in the competence of persons with drug dependency, followed by schizophrenia, alcohol abuse, and depression. The people surveyed expected that persons with drug abuse, alcohol abuse, and schizophrenia would be dangerous, but would be more of a threat to themselves than to others. The survey also showed that respondents distinguished among the mental health problems in terms of their support for legally coerced treatment. Few saw the need to coerce treatment for individuals suffering from depression or from "troubles." However, a majority of those surveyed supported the use of legal coercion for people with schizophrenia or substance (drug or alcohol) abuse, especially (over 90% of respondents) if the person was seen as dangerous to him- or herself or to others. The survey respondents reflected a strong negative attitude toward persons they labeled as "mentally ill," which influenced their evaluations of competence, dangerousness, and need for coercion.

Fear of violence was cited as the single greatest factor in promoting stigmatized views of people with mental illness. The workshop participants felt that innovation in service delivery, not efforts to decrease stigma, should be a primary focus for future endeavors. Stigma is only relevant to the extent that people are deprived of necessary services as a result of inaccurate estimations of their risk of violence and the avoidance or fear associated with these inaccurate expectations. It was suggested that the best anti-stigma campaign would be the improvement of services.

Mr. Joel Slack, a consumer advocate and former patient, emphasized that understanding public views of mental illness and substance abuse is only one aspect of the problem. In a broader context, it is more important to understand the personal views of the consumers themselves—the people who use the programs. Of primary importance to Mr. Slack was the identification of key factors in the recovery process. He pointed out, however, that researchers tend to favor studying people who are disabled, not people who have recovered; therefore, they are missing an opportunity to better understand factors related to recovery. For Mr. Slack, hope is an essential factor for recovery. He recalled that the longer he was disabled and lived without hope, the angrier he became. He speculated that for some people, the loss of hope is the beginning of violence. At such a low point, some individuals strike out, whereas others turn their anger inward.

In addition, Mr. Slack noted the economic, social, and human losses that are incurred because of the gap between available research and the application of research findings. However, he also highlighted a program that effectively applied available research. He cited a U.S. Air Force program on suicide prevention that led to a drop in the suicide rate among servicemen and -women from 15.8 per 100,000 in 1996 to below 3.5 per 100,000 at the beginning of 1999 (www.af.mil/news/Jun1999/n19990609_991139.html). Mr. Slack expressed concern about the existence of a climate in which the research community focuses on the physician, rather than the patient. He pointed out that the dissemination of research data is primarily directed toward practitioners, thus ignoring their patients' desire and need for knowledge.

FUTURE DIRECTIONS FOR THE INSTITUTE OF MEDICINE

Where do we go from here? First, we must thoroughly examine what is currently known. The workshop speakers described several areas of research in which advances are occurring. Yet it was evident that large gaps also exist. Some of the gaps that were identified at the workshop are family influences on violence and substance abuse; pharmacological interventions that might affect violence; contextual factors that affect violence, particularly those associated with a drug abuse life-style; and the changes that occur with recovery. Violence prevention and treatment are important public health goals. A greater understanding of the pathways that lead to violence could identify potential targets for prevention and intervention services. In addition, mental illness is not a single disease. As reflected in some of the workshop presentations, certain disorders are more likely than others to be associated with substance abuse, violence, or both. Similarly, the relationship of drug abuse with mental illness and violence likely depends on the particular substance abused. The Institute of Medicine could contribute to the field by reviewing the available data and identifying promising areas of research, thereby providing a focus for funding agencies.

Individuals with co-occurring psychiatric disorders and drug abuse—who are therefore at risk for violent behavior—were noted by workshop participants to pose a special challenge to the treatment system. Despite the research gaps noted above, there is a body of literature that might be successfully applied to improve current programs. A review of existing treatment and prevention programs could potentially identify aspects of interventions that work and perhaps some that do not work. In addition, information that is not currently being applied to the problem of violence associated with drug abuse and mental illness could also be brought to bear. The Institute of Medicine could define directions for the dissemination and application of cutting-edge research, perhaps encouraging innovations that could improve interventions as a result.

The workshop participants felt that improvements in interventions are likely to require federal agency support. Training and funding issues will be critical components of any new treatment system. Workshop discussions suggested that abuse and mental illness need to be treated concurrently, in an integrated fashion. Therefore, care providers involved with new programs may need a broader perspective and an interdisciplinary scope. How could a system ensure that there will be trained providers to implement the new concepts discussed here? What would be the most beneficial way to allocate scarce dollars to encourage the development of innovative programs?

In the judgement of the workshop participants, comorbidity associated with violence presents special challenges to the criminal justice system, the public health system, social services agencies, local governments, and communities. To deal with these challenges, participants suggested that the efforts of these organizations need to be coordinated. The presentations indicated that demographic and contextual factors such as race, gender, age, discrimination, poverty, homelessness, stressful life events, the characteristics of social networks, and the quality of living environments are all likely to moderate or aggravate significantly the relationships among victimization, co-occurring disorders, and violent behavior. Thus, the role of co-occurring disorders in violence may also have implications for community groups and social service agencies, as well as for foundations that support a variety of service programs. One of the most immediate implications of

this link among substance abuse, mental illness, and violence relates to the design and implementation of proactive community treatment programs, including mandatory treatment. For example, the integration of treatment services also suggests the possibility of integrating treatment strategies that are mandated. Despite the increased attention now being given to "outpatient commitment" of persons with chronic mental illness, the significance of substance abuse and its concurrent treatment is rarely given specific attention.

Workshop discussions pointed out that incarceration has become a critical juncture for people with a mental illness and that interventions are needed to prevent their going to jail. The Institute could play a role by addressing some of the concerns that arise in discussions of this issue. Among these are such questions as: What is the most effective way to coordinate responsibilities among the involved organizations? How can potential problems be recognized early on by communities and schools? What community services or public health resources are needed to treat existing problems and to prevent their progression? How should integrated care be provided within the correctional system? How should we follow up recovered patients? With the appropriate, coordinated systems in place, perhaps troubled individuals will have a reason to feel hopeful about their future.

WORKSHOP ON THE ROLE OF CO-OCCURRING SUBSTANCE ABUSE AND MENTAL ILLNESS IN VIOLENCE

Agenda

8:30 a.m.	Welcome and Overview, *Richard Bonnie and Ellen Frank*
9:00	The Context of the Debate on Mental Illness, Substance Abuse, and Violence
	Views of the American Public, *Bernice Pescosolido*
	Views of Mental Health Consumers, *Joel Slack*
10:00	Mental Illness and Substance Abuse: The Epidemiology of Co-Occurrence, *Kathleen Merikangas*
10:30	Break
10:45	Linkages Among Mental Illness, Drug Abuse, and Violence: State-of-the-Art Findings
	The MacArthur Violence Risk Assessment Study, *Henry Steadman and John Monahan*
	Co-Occurring Substance Abuse and Violence, *Barbara Havassy*
12:30 p.m.	Lunch
1:30	Violence Risk Reduction for Persons with Co-Occurring Mental Illness and Substance Abuse, *Robert Drake*
2:30	Reaction Panel, *Robert Battjes, Carol Coley, Susan Martin, and Ben Wheat*
3:30	Open Discussion and Comments
4:30	Conclusion

Workshop Participants

Carol Coley, Center for Substance Abuse Treatment, Rockville, Maryland
Robert Battjes, National Institute on Drug Abuse, National Institutes of Health, Bethesda, Maryland
Robert Drake, Psychiatric Research Center, Lebanon, New Hampshire
Barbara Havassy, University of California at San Francisco
Susan Martin, National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Bethesda, Maryland
Kathleen R. Merikangas, Yale University School of Medicine
John Monohan, University of Virginia School of Law
Bernice A. Pescosolido, Indiana University
Joel Slack, Office of Consumer Relations, Montgomery, Alabama
Henry J. Steadman, Policy Research Associates, Delmar, New York
Ben Wheat, Bureau of Prisons, Washington, D.C.

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