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PUBLIC HEALTH AND THE STUDY OF CRIME PREVENTION

Chapter 1 pointed out several problems with the nation's get-tough policy of crime control that has involved mass incarceration. In response to these problems, many criminologists emphasize the need to prevent crime with alternative strategies that focus on the roots of crime and the many problems (including histories of drug and alcohol abuse, physical and sexual victimization, and mental illness) that offenders already have when they enter prison.

As criminologists considered these strategies during recent decades, many looked to the field of public health for inspiration and insight (Welsh 2005). At the same time, public health scholars began to regard violence as a public health issue and to develop strategies to prevent and reduce violence (Kellerman 1996). The two fields have increasingly converged on the need to prevent crime, with criminologists and public health scholars collaborating on any number of projects (Welsh, Braga, and Sullivan 2014).

Accordingly, this chapter outlines the relevance of the public health model for crime prevention and examines its potential as an effective and more cost-efficient alternative to the get-tough approach. This chapter also reviews the research methods used in criminology, criminal justice, public health, and related fields. This review is appropriate because research lies at the heart of crime

Chapter Outline

- The Public Health Model
 - Harm Reduction
 - Public Health and Crime Prevention
 - The Three Levels of Public Health and Crime Prevention
- Studying Crime and Crime Prevention
 - Survey Research
 - Qualitative Research
 - Experimental Research
 - Evaluation Research
- Conclusion

Learning Questions

1. What does the public health model emphasize?
2. How has the concept of harm reduction been applied to tobacco use?
3. What are the three levels of prevention in the field of public health?
4. What is the difference between an independent variable and a dependent variable?

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5. Which research method offers the best potential for ruling out issues of causal order and spuriousness?

prevention. Most crime prevention efforts potentially make sense because they rest on theories of crime and criminal behavior (as summarized in Chapters 3 and 4) that have been empirically tested. The effectiveness of specific crime prevention efforts has also been empirically assessed. To appreciate the theoretical and practical basis for crime prevention efforts, then, it is important to be familiar with the research

methodologies that point to their potential and with certain questions that commonly arise in the research enterprise.

THE PUBLIC HEALTH MODEL

Most readers of this book know someone who has or had cancer, and many readers know several such people. Perhaps these people are still alive, perhaps not. When their cancer was diagnosed, their physicians no doubt did everything possible to help them. Sometimes their efforts succeeded, but sometimes they did not succeed. Regardless of the outcome, we would all agree on the need for the best medical care possible to treat anyone with cancer. This is the standard model of medical care: to treat someone who develops cancer or other health problems.

If we all agree on the need for the best medical care possible, presumably we also all recognize that it is much better yet to prevent someone from getting cancer or another health problem in the first place. If we can prevent their health problem (let's continue to assume cancer), we save them the physical, emotional, and economic difficulties that their cancer will almost certainly cause; we save their friends and loved ones the emotional trauma of knowing someone who is seriously ill; and we save our society the health care expenses and lost wages associated with cancer cases and deaths. Certainly, some people will develop cancer no matter how many preventive measures they take individually (for example, eating a healthy diet and not smoking) and our society takes corporately (for example, via government efforts to reduce air pollution). Still, efforts that effectively prevent cancer nonetheless save much money and much physical and emotional distress in the long run. In short, it is far better to prevent people from getting cancer than to wait and treat them after they do become ill.

The need to prevent health problems (disease, illness, and injury) before they begin is the focus of the field of **public health**. According to the American Public Health Association (2018), "Public health promotes and protects the health of people and the communities where they live, learn, work and play. While a doctor treats people who are sick, those of us working in public health try to prevent people from getting sick or injured in the first place. We also promote wellness by encouraging healthy behaviors." Major public health efforts in the 20th century included the development of vaccinations for polio and other serious diseases, measures that improved motor-vehicle safety, the establishment of healthier workplaces, improvements in hygiene and nutrition for new mothers and babies, and reductions in the use of tobacco. These and other public health

efforts have prevented uncountable diseases and illnesses and saved millions of lives in the United States and around the world.

Public health certainly recognizes the need to treat people who already have a health problem. Even if all these people are cured, however, there will always be more people becoming ill or injured and becoming new patients to replace the cured patients. Public health realizes it would be shortsighted to neglect the causes of disease, illness, and injury and to fail to do everything possible to address these causes.

In the field of public health, the causes of disease, illness, and injury include problems in the natural and physical environments, problems in the behavior of individuals, and problems in how individuals interact with one another. Not every health problem can be traced to these larger problems and, to return to our earlier example, certainly not every cancer. Still, many occurrences of disease, illness, and injury do indeed have their roots in these larger problems. Recognizing this fact, public health tries to determine the exact causes of specific health problems and then develop strategies—policies, programs, and practices—to eliminate the causes or, failing that, to at least weaken their impact.

Harm Reduction

Note that the last part of the previous sentence referred to either eliminating the causes of health problems or at least weakening their impact. Public health recognizes that some causes of health problems can be eliminated and in fact have been eliminated (or almost so). To cite just two examples of this success, the development of the smallpox vaccination in the 19th century led to the eventual elimination of smallpox, and the development of the polio vaccination in the 20th century likewise led to the eventual elimination of that disease, or almost so. Despite these successes, public health also recognizes that many causes of health problems cannot be eliminated, at least not in the foreseeable future. For example, although air pollution is a major health problem, we cannot simply wave a magic wand and make air pollution disappear.

For the many causes of health problems that cannot be eliminated easily or at all, public health recognizes the need to *limit* their negative impact. To say this another way, public health focuses on the need to reduce the harm from these causes. This major component of the public health approach is called **harm reduction**. This component reflects the recognition that because many causes of health problems cannot be eliminated, our society should at least strive to reduce the harm to individual and social health arising from them.

A good example of a harm reduction approach involves tobacco use (Pierce, White, and Emery 2012). Tobacco is a slow poison that eventually kills about one-third of all cigarette smokers and other regular tobacco users. When the dangers of tobacco use became known more than a half-century ago, the U.S. public health community realized it would be virtually impossible to make tobacco disappear. Too many people smoked cigarettes or used tobacco in other ways, tobacco was too entrenched in the popular culture, and tobacco companies had too much influence via their ability to spend huge sums of money on advertising and congressional lobbying.

Public health experts thus decided to use a harm reduction strategy involving such steps as public education on the dangers of tobacco use, the raising of cigarette taxes

to make smoking more expensive, and the introduction of warning labels on cigarette packages. Many people still smoke, of course, with almost one in five American adults smoking cigarettes regularly. However, the proportion of smokers has dropped considerably from several decades ago, when more than two in five adults smoked regularly. Public health has thus helped greatly reduce the harm caused by tobacco use. Even if it has not eliminated this harm altogether, its harm reduction approach has nonetheless prevented many cases of lung cancer, heart disease, and other health problems arising from tobacco use and, as a result, saved countless lives.

Public Health and Crime Prevention

What is the relevance of this discussion for crime prevention? During the 1970s and especially the 1980s, public health experts turned their attention to violent crime. During the 1980s, homicides killed more than 20,000 Americans annually on average, the number of robberies was as high as 1.4 million annually, and the number of aggravated assaults was as high as 1.8 million annually. Against this frightening backdrop, public health researchers labeled violent crime a major health problem (Hemenway 2009). Their goal was to prevent violent crime before it occurred, rather than just “treating” the offenders who had already committed violence.

This approach led these researchers to examine the causes of violent crime and possible ways of addressing these causes. As noted earlier, criminologists also began to devote more attention to “evidence-based” crime prevention and launched new research to assess the crime-reduction effectiveness of various policies and practices. This book’s discussion and advocacy of crime prevention strategies draws heavily on the research of public health scholars, criminologists, and other policy experts.

The Three Levels of Public Health and Crime Prevention

Public health researchers emphasize three levels of causation at which disease, illness, and injury may be prevented or at least have their harm reduced (Schneider 2017). These levels are called the *primary*, *secondary*, and *tertiary* levels. Reflecting these terms, public health researchers speak of *primary prevention*, *secondary prevention*, and *tertiary prevention*, or prevention at the primary level, the secondary level, and the tertiary level, respectively. Crime prevention research also focuses on ways to prevent or reduce crime at these levels. We now discuss these levels in greater detail.

Primary Prevention

In the field of public health, **primary prevention** refers to preventing health problems altogether by addressing features of the social, physical, and natural environments that help generate these problems. For example, air pollution is a major problem in the natural environment that causes much disease and death. Reducing air pollution would thus reduce disease and save lives. Inadequate sanitation (due to lack of bathrooms) is a major problem in the physical environment of low-income nations that also causes

much disease and death. Improving sanitation to reduce disease and death is a major primary prevention focus of international agencies such as the World Health Organization. Turning to an example from the social environment, poverty contributes to many types of physical and mental illness (Cockerham 2013). Efforts that successfully reduce poverty would also be very likely to reduce the rate of physical and mental illness among the poor.

Reflecting this public health approach, primary prevention of crime involves efforts to address aspects of the social and physical environments contributing to criminal behavior and victimization. These roots, to be discussed further in Chapter 4, include poverty, joblessness, racial segregation, dilapidation in urban neighborhoods, and male socialization. More generally, primary crime prevention focuses on the social, cultural, and community causes of crime. This form of crime prevention recognizes that some people are more likely to commit crime because they live amid **criminogenic** (crime-causing) conditions in their social and physical environments. Accordingly, many primary prevention efforts focus on improving these conditions to prevent crime. Chapters 5, 6, and 7 discuss primary prevention of crime at much greater length.

Secondary Prevention

Secondary prevention in public health refers to preventing health problems by focusing on the many behaviors and practices that put people at greater risk for becoming ill or sustaining an injury. Our earlier discussion of public health efforts to reduce tobacco use involved an example of secondary prevention because these efforts focus on reducing a risky behavior—cigarette smoking, as well as other kinds of tobacco use. Another example of secondary prevention in public health involves vaccinations. Because low-income children are more likely than wealthier children to not get needed vaccinations, they are more likely to incur serious childhood diseases. Public health experts thus aim to increase the vaccination rates for these children through public education programs and other efforts. A third example of secondary prevention involves motor vehicle accidents. Many fewer people die in these accidents now than 50 years ago because public health experts and other advocates urged that safety features such as seat belts and air bags be installed in every vehicle. For this reason, the Centers for Disease Control and Prevention (1999) has called motor-vehicle safety a “20th century public health achievement.”

Secondary prevention of crime similarly involves the behaviors, practices, and situations that put certain people at greater risk for committing crime or becoming victims of crime. Much secondary crime prevention research focuses on the experiences that put *children* at greater risk for growing up to commit delinquency and crime. Because children are involved, these experiences are called *developmental experiences* (or *developmental processes*), to use a term from psychology, and secondary crime prevention is often called *developmental crime prevention*. Chapters 8, 9, and 10 discuss secondary crime prevention, including developmental prevention, in more detail.

Tertiary Prevention

Tertiary means “third,” and tertiary prevention is the third level of public health (and crime) prevention. To be more precise, **tertiary prevention** in public health refers

to efforts to reduce the consequences of a health problem *after* it has begun. When you visit a physician's office or other health care facility for an illness or injury, the health care professional who treats you is engaging in tertiary prevention. Such prevention thus focuses on people who are already patients. The practice of medicine and the field of public health have certainly made enormous strides over the decades in treating health problems. Many lives are saved now that would have been lost just a decade or two ago, and patients fare better overall now than in earlier years. Tertiary prevention helps more patients now than when you were born and many, many more patients than when your parents or grandparents were born.

If patients are the focus of tertiary prevention in the practice of medicine and in much medical research, then criminals are the focus of tertiary prevention in the field of criminology and in the operation of the criminal justice system. Just as tertiary prevention for health problems focuses on the people (patients) who already have a health problem, tertiary prevention for crime focuses on the people (criminals) who already have a "crime problem." Put another way, tertiary prevention focuses on people who have already committed crimes.

Tertiary prevention is an important aim of the criminal justice system. As this chapter discussed earlier, arrest and imprisonment aim to deter potential offenders from committing crime, and imprisonment aims to keep convicted offenders from committing new crimes against the public while they remain behind bars. Much recent research on tertiary crime prevention involves changes in criminal justice practices and policies to more effectively prevent crime. Chapters 11, 12, and 13 discuss this research in greater detail.

STUDYING CRIME AND CRIME PREVENTION

As noted earlier, this book draws heavily from the research of public health scholars, criminologists, and other policy experts. Sound research is necessary to determine the causes of crime and to assess the actual or potential effectiveness of various crime prevention strategies. This section outlines the strengths and weaknesses of the major research methods that scholars use to study criminal behavior and crime prevention. As you learn about these strengths and weaknesses, you will be better able to assess for yourself the research studies discussed throughout this book.

Before turning to research methodology, we need to define a few terms. The first is *variable*. A **variable** is any factor that can vary from one person to another. Gender is a variable, and so are age, income, religiosity, political views, criminal involvement, and countless other factors. Although we have defined variables as differing from one person to another, variables can also be *ecological* in nature by differing from one geographic unit to another geographic unit: from one city to another city, from one county or state to another county or state, and from one nation to another nation. Crime rates vary among cities, counties, states, and nations, and so do other factors such as education level, gun ownership, and incarceration rates. All such factors are ecological variables.

An **independent variable** is any variable that may affect or influence another variable, called the **dependent variable**. If we find an association between gender and criminality—for example, men are more likely than women to commit homicide—gender is the *independent variable* and the likelihood of committing homicide is the *dependent variable*. The reason for these particular designations should be clear: Gender might very well affect the likelihood of committing homicide (for reasons that need not concern us now), while it is highly unlikely that an inclination to commit homicide can affect gender. As we shall soon see, however, when two variables are associated, it is not always so easy to determine which is the independent variable and which is the dependent variable.

With this terminological diversion out of the way, we now turn to a brief outline of the strengths and weaknesses of the major research methods in criminology and crime prevention.

Survey Research

Survey research is probably the most popular research method in criminology and other fields such as sociology and political science. Such research involves questionnaires administered to people over the phone (*telephone survey*), in person (*face-to-face survey*), by mail (*mailed survey*), or over the Internet (*Internet survey* or *Web survey*). The people who answer the questions on these questionnaires are called **respondents**.

In criminology, many studies analyze data from so-called **self-report surveys**, which ask respondents to indicate whether and how often they have committed various offenses during the past year or some other time frame. Most self-report surveys involve adolescents, although a growing number involve young adults. The surveys of adolescents typically ask about such matters as their relationship with their parents; their grades, school activities, and views about their schooling; and their involvement with any delinquent friends. The answers they give enable self-report surveys to provide important information on the various factors that lead to criminal behavior.

Surveys of crime victims are also important. The best known such survey is the National Crime Victimization Survey (NCVS), discussed in Chapter 1. The NCVS and other victim surveys tell us much about crime rates that the Uniform Crime Reports methodology leaves hidden. Because NCVS respondents are also asked about aspects of their criminal victimization, this and similar surveys also tell us much about where and how criminal victimization occurs and about its economic and social impact on victims.

Surveys have several strengths. One strength is that surveys can ask many questions to gather a good deal of information about their respondents. Another strength is that many surveys are given to random samples of the population of a city, state, or entire nation. This fact means that respondents' answers represent the answers of the population that the sample represents. The ability to *generalize* the respondents' answers to the population is a major strength of surveys that use random samples. A third strength of surveys is that the information they gather can easily be analyzed with statistical software. Surveys thus enable *quantitative analysis*, which is the most popular form of data analysis in criminological research today.

Surveys also have some weaknesses. One weakness is that a good deal of information they gather is rather shallow. For example, adolescents in a self-report survey may be asked a few questions to measure how well they get along with their parents, but these questions barely tap the full complexity of the relationship that adolescents have with their parents.

A second weakness is more important for this book's subject matter. Surveys are not the strongest research method for demonstrating *causation*: whether, when two variables are associated, the presumed independent variable is actually affecting the presumed dependent variable. This problem manifests in two ways, as we now discuss.

Causal Order

The first manifestation is when two variables are associated but, even so, it is not clear which variable is affecting which variable. In our earlier example of gender and the likelihood of committing homicide, there was no question that gender had to be the independent variable and the likelihood of committing homicide had to be the dependent variable. We could thus reasonably assume that gender was affecting homicide behavior, not the other way around. Similarly, if we find that age is associated with frequency of illegal drug use, it is clear that age might affect drug use and that drug use cannot affect age.

But there are many associations between variables in criminology and other fields where the causal order is less clear. This problem is called the **causal order problem**, or, to use a more common phrase, the *chicken or egg problem*. Whatever we call it, this problem is summarized in the familiar saying that “correlation does not mean causation.” To illustrate this problem, suppose that we find an association in self-report data between quality of parental relationship and extent of juvenile delinquency: Respondents with worse relationships with their parents are more likely to be delinquent than are those with good relationships with their parents. It is very reasonable to assume here that quality of parental relationship affects the likelihood of delinquency, or, to say this somewhat differently, that quality of parental relationship is the independent variable and extent of delinquency is the dependent variable.

However, it is also possible for delinquency to affect the quality of parental relationship. For example, if an adolescent male commits delinquency for the first time and continues to do so, his parents will probably be very concerned about his new behavior and do their best to discipline him. Various arguments will occur, and relations between the adolescent and his parents will suffer. In short, delinquency has affected the quality of the parental relationship.

So if an analysis using survey data does find an association between the quality of parental relationship and delinquency, which variable is affecting which? Which variable is independent, and which is dependent? To compound the situation, it is also possible that both variables are affecting each other, in what is called a **reciprocal relationship**. For certain pairs of variables, then, causal order is at least somewhat unclear, and **cross-sectional surveys**—those that assess people at one point in time—cannot easily deal with the causal order problem for these sets of variables.

Partly for this reason, criminologists increasingly analyze data from **longitudinal surveys**, those that study the same people over time. For example, if adolescents who are

less religious at age 12 are more likely to be drinking alcohol at age 15 (taking all other relevant variables into account), we can reasonably conclude that their early degree of religiosity somehow affected their later alcohol use, as it is impossible for their alcohol use at age 15 to have affected their religiosity at age 12. Here religiosity would be the independent variable and alcohol use the dependent variable. Causal order, then, is a less important problem in longitudinal surveys than in cross-sectional surveys.

Spuriousness

The second type of causation problem in survey research concerns *spuriousness*. **Spuriousness** exists when two variables are associated but only because a third variable, called an **antecedent variable**, is affecting each of the other two variables. For example, there is probably an association between ice cream sales and crime rates: When ice cream sales are higher, crime rates are higher. If we accept this association at first glance, we must think that eating more ice cream somehow causes more crime, perhaps because ice cream eaters get a “sugar high” and become violent. Of course, we could instead think there is a causal order problem with this interpretation and that it is actually crime rates that are prompting higher ice cream sales. Perhaps a rising crime rate makes people so anxious about crime that they pig out on ice cream to help deal with their anxiety!

As you probably realize, this ice cream–crime rate link is actually a *spurious*, or misleading, association, because we have not taken into account the effects of an important antecedent variable: outside temperature. When the weather is warm, ice cream sales are higher, and when the weather is warm, crime rates are also higher. These crime rates are higher *not* because of ice cream consumption but because of other factors, including the fact that people tend to interact more in warm weather, which provides more opportunities for violence to occur (Mares 2013). The initial ice cream–crime rate link becomes spurious when we take into account the effects of the warmth of the weather.

This was a rather silly example to clarify the concept of spuriousness, so let’s return to the more realistic example for causal order that we discussed earlier: The worse the parental–adolescent relationship, the higher the delinquency rate. Although the parental relationship generally does affect the likelihood of delinquency, at least part of this association might be spurious because one or more antecedent variables are affecting both the parental relationship and delinquency. In this regard, consider family income as a possible antecedent variable. Without meaning to stereotype, low-income families are more likely because of the stress they experience to have strained relations between parents and adolescents (Conger, Conger, and Martin 2010). Partly because of this stress, but also for some other reasons to be discussed in Chapter 4, these adolescents are more likely to commit delinquency. Family income thus affects both the parental relationship and the likelihood of delinquency. If so, at least some of the initial association found between parental relationship and delinquency may be spurious.

Analyses of survey data typically test for spuriousness by statistically controlling for all possible antecedent variables. Because they do so, they can usually rule out the possibility of spuriousness when they find an association between two variables. However, some *unknown* antecedent variable or variables may still be accounting for this association. For this reason, possible spuriousness often cannot be completely ruled out.

An exception to this latest statement occurs when the independent variable cannot logically have an antecedent variable because nothing can affect the independent variable. A good example here involves age. If we find an association between age and crime, with younger adults more likely than older adults to commit crime, this association cannot be at all spurious, because no variable can affect age. To say this another way, no antecedent variable can exist for age. By the same token, no antecedent variables can exist for gender or race, to cite two other very common independent variables. For almost all other independent variables, however, antecedent variables and thus spuriousness remain a potential concern in survey research.

Qualitative Research

Qualitative research also studies people but in a very different manner from survey research. As the term *qualitative* implies, qualitative research typically does not involve the gathering and analysis of numerical data. Instead, it involves two other methods of gathering information: (1) observing people in the *field*, or in their natural settings (called *field research* or *ethnographic research*), and (2) interviewing individuals one-on-one at length about their views, behaviors, and/or perceptions regarding one or more topics.

Qualitative research is probably less common than survey research in studying the causes of crime, in part because criminals typically, and unsurprisingly, do not want criminologists to observe them or to interview them. Criminologists are also often reluctant to associate with known criminals in this way. Despite these problems, some wonderful criminological studies have been qualitative studies. Criminologists have interviewed active robbers and burglars, illegal drug users, and prison inmates, and they have also interviewed and observed gang members (Carbone-Lopez and Miller 2012; Watkins and Moule 2014). In other very important qualitative research, they have also interviewed crime victims and observed police and prosecutors carrying out their jobs (Campbell, Adams, and Wasco 2009; Weidner and Terrill 2005). These and other studies have contributed significantly to criminological understanding of crime and the criminal justice system. In particular, they provide important information on the causes and dynamics of criminal behavior that aids in the development of crime prevention strategies.

Having said that, we should also note that qualitative research lacks a significant strength of survey research: using a random sample. Because qualitative research typically does not involve a random sample, its results cannot necessarily be generalized beyond the particular group or individuals who are studied qualitatively. If a criminologist studies a gang in Los Angeles for 2 years, can we be certain that the conclusions from this study would automatically apply to any other gang in Los Angeles or to gangs in Denver, Chicago, Atlanta, or New York? Absent some strong reason to believe otherwise, the conclusions probably would generalize to these other gangs, but generalizability is a more salient problem in qualitative research than in survey research that uses random samples.

Experimental Research

Experiments are very common in psychology but less common in criminology and especially sociology. This is a shame, because an important strength of experiments, if

they are conducted properly, is that they can almost certainly rule out the problems of causal order and spuriousness. Let's see why this is so.

In a typical experiment, as you might know, subjects are divided into an *experimental group* and a *control group*. Something (this something is called the *experimental condition*) happens to the experimental group that does not happen to the control group. Perhaps most significantly, subjects in the ideal experiment are *randomly* assigned to either the experimental group or the control group. This random assignment rules out the possibility that any differences found between the experimental group and control group *after* the experimental condition is applied could have stemmed from preexisting differences between the subjects before the experiment began. Another way of saying this is that random assignment rules out the possibility of spuriousness. Causal order is also not a problem in experiments, because the experimental condition (the equivalent of the independent variable) occurs *before* the outcome variable (the equivalent of the dependent variable) occurs. Experiments that meet these ideal methodological criteria are called *randomized experiments* or *randomized controlled experiments* (or *randomized trials* or *randomized controlled trials*). They are the “gold standard” of research methodology because neither spuriousness nor causal order is a concern when the data are analyzed.

However, it is often not very possible in the real world of criminological research to carry out randomized controlled experiments, in part because of concerns about public safety. Consider the following hypothetical study. We want to determine whether a 2-year prison term or a 4-year prison term more effectively reduces the rearrest rate for offenders convicted of aggravated assault. Ideally, we would randomly assign these offenders to serve either 2 years or 4 years in prison, with half the offenders serving 2 years and half serving 4 years. If we find a year after each group is released from prison that the 2-year group has a higher rearrest rate than the 4-year group, we can reasonably conclude (without knowing exactly why) that the 4-year term was more effective in reducing **recidivism** (repeat offending) than the 2-year term was, at least during that first year after release. If, on the other hand, we find that the rearrest rate was lower for the 2-year group than for the 4-year group, we can reasonably conclude that the 4-year term was less effective in reducing recidivism.

This would be a very interesting study, but in reality it would be difficult to carry out because legal officials, elected officials, and the public may balk at having half the offenders sentenced to only 2 years in prison. This concern for public safety may make this type of experiment impossible to consider in the first place. Despite this type of problem, an increasing number of crime prevention studies use randomized controlled experiments, with many of these studies focusing on aspects of policing. In drawing conclusions on the best strategies for crime prevention, this book places special emphasis on randomized controlled experiments involving policing, other aspects of crime and criminal justice, or policy interventions at the primary or secondary levels of prevention.

Although experiments can be a powerful research tool for the reasons just stated, they do have a weakness that should be kept in mind: Their results cannot necessarily be generalized to the larger population. As with qualitative research, this is because experiments do not rely on random samples. If a randomized controlled experiment involving police in Chicago shows that a certain new strategy reduces crime rates, can we be sure that this strategy would have the same effect in Philadelphia, Miami, Dallas, or

San Francisco? Unless there is some reason to believe otherwise, this strategy probably would have the same effect regardless of which city uses it (assuming it was implemented properly), but generalizability with experiments in criminological research is still an issue to keep in mind.

Evaluation Research

Evaluation research assesses the effectiveness of a policy or program. It usually does so by comparing outcomes before and after the implementation of a policy or program. In the study of crime prevention, recidivism is a typical outcome that evaluation research assesses. Suppose, for example, that a city establishes new drug treatment services for released prisoners on parole. It might then compare the recidivism rate for released prisoners in the city during the 3-year period before the new services were established with the recidivism rate during the 3-year period after the services were established. If the later recidivism rate is lower than the earlier recidivism rate, that would suggest that the new drug treatment services prevented future criminal behavior.

Although this conclusion might make sense, other factors also might have reduced the later recidivism rate. For example, if the economy improved around the time the drug treatment services were established or if policing strategies became more effective, those types of changes, rather than the drug treatment services, may explain the lower recidivism rate. In practice, it is often difficult in evaluation research to rule out alternative reasons for any outcome differences that are found.

As might be clear from the hypothetical example of drug treatment services, evaluation research resembles an experiment in that it often involves comparison of “before” and “after” outcomes. Some evaluation research involves an actual experiment. If so, this research design helps rule out alternative reasons for any outcome differences. Returning to our drug treatment example, suppose the city randomly assigned parolees to either receive the new drug treatment services or not receive them. These two groups’ recidivism rates could then be compared. If the drug treatment group had a lower recidivism rate than the control group, that would suggest that drug treatment services helped reduce recidivism. Other unknown factors might still explain the outcome difference just described, but a conclusion that the drug treatment services “worked” would be reasonable in view of the use of random assignment.

CONCLUSION

The public health model offers a promising alternative to get-tough approaches for preventing and reducing crime. As with health problems, crime may be prevented at the primary, secondary, and tertiary levels. To assess the potential for crime prevention strategies, it is important to be familiar with the advantages and disadvantages of the research methodologies that social scientists use to study crime and crime prevention. Each of these methodologies has its strengths and weaknesses, but together they enable criminologists and public health scholars to better understand the causes of crime and ways to prevent and reduce it.

SUMMARY

1. Public health emphasizes addressing the causes of health problems. A public health approach to crime reduction therefore emphasizes addressing the causes of crime to reduce crime.
2. The three levels of public health prevention are the primary, secondary, and tertiary levels. These levels involve primary prevention, secondary prevention, and tertiary prevention, respectively.
3. Regarding health problems, primary prevention focuses on aspects of the social, physical, and natural environments that contribute to health problems, while secondary prevention focuses on the behaviors and practices that put certain people at greater risk for developing a health problem. Tertiary prevention refers to efforts to reduce the consequences of a health problem after it has begun. A public health approach to crime prevention involves all three levels of prevention.
4. Surveys, qualitative research, and experiments are the main research methodologies that scholars use to study crime and crime prevention. Each methodology has its strengths and weaknesses, but together they enable social scientists to gain much knowledge about the causes of crime and about the potential for various crime prevention strategies.
5. Two particular issues in assessing the results of social research, including research on crime prevention, are causal order and spuriousness. Randomized controlled experiments provide the best way of minimizing these issues, but survey research and qualitative research are still very helpful in understanding why crime occurs and in assessing the effectiveness of crime prevention efforts.
6. Evaluation research assesses the effectiveness of a program or policy. The possibility of alternative explanations sometimes makes it difficult to reach any strong conclusions from evaluation research.

KEY TERMS

antecedent variable 31
causal order problem 30
crimingenic 27
cross-sectional surveys 30
dependent variable 29
evaluation research 34
experiments 32
harm reduction 25

independent variable 29
longitudinal surveys 30
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