Predicting Violence and Recidivism among Forensic/Correctional Population

Dr. Wagdy LOZ a, Psychiatry & Psychology - Canada

E.mail: wml@post.queensu.ca

Introduction
Forensic psychiatry and psychology are subspecialties which, includes many areas where mental health and the Criminal Justice System (CJS) coincide. Organizations incorporated in the CJS is the correctional system and to some extent forensic wards in psychiatric hospitals. In most of the advanced correctional systems, forensic psychiatrists and psychologists carry out many important tasks. This includes (a) assessments aimed at predicting potential violence in the institutions and community after release, mental status examination, assessment regarding issue of self-harm, and other specialized assessments such as neuro-psychological evaluations, assessments of risk of sex offenders, and of substance abusers, (b) treatment via psychotropic medication (restricted to psychiatrists), development and implementation of treatment programs such as treatment to deal with offenders with anger, attitude problems, deficits with their cognition and attributions, sex offenders and substance abusers, (c) Providing critical Incident Stress Management intervention for staff when needed, (d) Consultation with management of the institution regarding issues with psychological implications such as management of crises, hostage taking incidents, riots, threats of self-harm, Mediation and conflict resolution, (e) staff training regarding issues with psychological implications (e.g., identifying offenders who are potentially at risk for harm to others or themselves), (f) training and supervision of graduate students, (g) conducting and participating in research projects.

Presentation in this paper will be restricted to issues related to the clinical prediction of violent behavior and recidivism (returning back to prison or psychiatric institution after being released). First a brief review of some issues related to making predictions. This will be followed by the problems affecting accurate predictions and a review of the variables associated with making these predictions. In conclusion some suggestions to help clinicians make accurate predictions will be provided.

Predicting violence and offenders recidivism is a contribution that forensic clinicians can make to prevent further criminal acts. However, this practice has not been without controversy. The supporters of the use of predictions argue that the benefits to society outweigh the costs to the individual and that predictions could prevent a great number of violent acts. The advocates against its use argue that a) there is no evidence that clinicians can reliably and accurately predict violent/ criminal behavior. b) Prediction violates civil liberties because prediction may result in more individuals being punished, not for crimes they have committed, but for crimes they might commit. c) Prediction destroys the helping role of mental health professionals as their role should be to help their clients, not to act as an agent for social control. d) It is not ethically appropriate to predict violent behavior, given the doubts casted on this practice.

Most of the criticisms against prediction were made when clinical judgment alone was the method commonly used for making these predictions. The last three decades, however, witnessed many improvements in the ability to predict. These improvements are largely credited to the use of the actuarial and other psychological measures which have been demonstrated to improve the predictive accuracy of general recidivism and violent offenders. It is estimated that the predictive accuracy has been improved from 60% to 80% by using actuarial tools when predicting general recidivism, and as high as 53% when predicting violent recidivism. This is an improvement when compared to a success rate of less than 40% when using clinical judgment alone. In addition to improving the accuracy of predictions, the actuarial tools provide several advantages such as objectivity, uniformity, and consistency. They reduce the opportunity for litigation and make the decision process more clear to all involved. They also avoid most of the problems associated with the use of clinical judgment alone, such as assessor biases and limitations and the illusory correlates (appropriate but false correlations between a variable and outcome).

The success of actuarial measures has several researchers urging for the use of actuarials in the prediction process. Others advocate for complete reliance on the actuarial measure for risk assessments, on the basis that actuarial measures "are too good and clinical judgment too poor to risk contaminating the former with the latter". It is now broadly accepted that actuarial measures constitute the most accurate approach to predicting general behavior.

1 - Problems affecting accurate clinical predictions

1.1- Base rate problem
A behavior that occurs rarely is one that has a low base rate. It is difficult to predict behaviors that have a low base rate. Ideally the predictor wishes to maximize his/her true predictions (i.e., true positives and true negatives), and minimize his false predictions (i.e., false positives and false negatives). A True Positive prediction of violent behavior is a forecast that violent behavior will occur which later materializes. A True Negative prediction of violence is a prediction that violent behavior will not occur which in fact does not. False predictions are incorrect predictions and have undesirable consequences. A
False Positive prediction (e.g., a prediction that violence will occur which turns out to be false) may result in the unnecessary detention of an innocent person. A False Negative prediction (e.g., a prediction that violence will not occur but it does occur) may result in releasing prematurely someone, who will behave violently in the community. Since violent behavior is committed rarely, it has a low base rate and results in a high percentage of false predictions. This means that even when clinicians follow good predictive procedures, they will end up making many more false positives than true positive predictions. Thus, erroneously recommending the detention of many people.

1.2 - Lack of specificity in defining the criterion

There is lack of agreement among clinicians as to what constitutes violent behavior and on the definition of violence or dangerousness. Some scholars have reported existence of more than 250 different definitions of aggression in the literature. Clinicians have been complaining of the lack of an objective legal definition regarding the precise nature, extent of object of the violent act which leave them to operate in a definitional abyss. Some have cited few examples in support of this claim. A violent act has been defined to include only injury to others; to include injury to others or the destruction of property; and both physical and psychological injury. Violent fantasies thoughts or threats have also been considered as dangerous. Writing a bad cheque is seen as dangerous behavior because it affects the economy. It has been pointed out that, due to the lack of definition as to what the clinician is supposed to predict, many personal biases affect his/her prediction. Such lack of agreement causes confusion and conflict among clinicians. This in turn results in arbitrariness and unfairness in the prediction process and decision making with regard to release.

1.3 - Lack of corrective feedback

Clinicians do not get a chance to empirically test the accuracy of their predictions. There is no systematic follow up in place to give predictors feedback about the results of their predictions. This results in clinicians making the same mistake daily and for many years, without improvement.

1.4 - Medical model.

The tendency to over predict violent behavior appears to be related to the practice of prediction in medicine. Clinicians are trained to avoid false negatives and suspect illness whenever in doubt. These clinicians, when requested to make prediction about an individual's violent behavior, take the cautious side and predict that violence behavior will occur.

1.5 - Differential consequences: Predictor vs. Predictee.

It has been suggested that clinicians who make cautious predictions are making much safer recommendations than those who recommend release for someone who later commit violent acts. Similarly, it is suggested that while a prediction that a person will not commit violent acts, which turns out to be wrong may result in severe and prolonged legal, personal, and professional repercussions on the predictor, no negative consequences exist for making the safe prediction that the individual is dangerous. A scholar summarized 17 legal cases brought against clinicians for allegedly failing to follow the "duty to warn" or "duty to protect" principle. The pressures of legal repercussions do not come only from victims of the violent acts, but also from the violent individuals themselves. Another scholar reported a case of discharged mental patient who committed murder, and later filed a law suit on the ground that the releasing authorities should have known better than to release him. It is also reported that there is an increasing emphasis on professional liability where the provider "Knew, or should have known" of the individual tendency towards violent behavior.

1.6 - Illusory Correlations

Individual prior expectations or beliefs bias clinicians and subsequently their decisions. Illusory correlation occurs when clinicians report observing a correlation between two events which, in fact, are not correlated, or correlated to a lesser degree, or in the direction opposite to that reported.

1.7 - Failing to incorporate environmental / situational variables

One of the important problems in predicting violent behavior is ignoring the influence of the environmental factors on the behavior. This is in spite of research indicating the importance of these factors in shaping the individual's behaviors. Failing to consider environmental factors is due to the belief that behavior stems from fixed, enduring traits, stable personality characteristics of the individual suggested that the situational factors and the interaction between them and the personality characteristics be considered in the prediction process.

1.8 - Lack of adequate psychometrics or not using proper psychometrics

Prior to the 1980s psychological measures specifically designed to help in the prediction of violent prone individuals were not widely known. This led clinicians to use measures that were designed for other purposes; developed on other populations or contained questions that were unreliable and misleading (Hinton, 1983). The Minnesota Multiphasic Personality Inventory (MMPI) is still the most widely used tool by correctional psychologists. It is reported that 87% of psychologists in the United States are using the MMPI, although, none of the original clinical scales have been specifically designed for use with offenders or the prediction of violent behavior. Nevertheless, many clinicians still use some of the original MMPI scales (i.e., the psychopathic deviate, Pd and the Manic, Ma subscales), or other special subscales (i.e., the Over Controlled Hostility, OH and the Megargee's MMPI typologies) to distinguish between violent and nonviolent individuals. These subscales, however, have not been found to be reliable or valid for such use. In addition others found that the MMPI was not useful in the prediction of recidivism. Use of the MMPI (OH) scale. In fact, the use of the MMPI is not supported by the contradictory findings of researchers who reported that MMPI clinical scales have not proven to be particularly good predictors of violent recidivism. The good news however, is that new measures and actuarials have been developed with demonstrated reliability and validity for making predictions regarding violent behavior and recidivism such as the Psychopathy Check List -Revised (PCL-R) and Level of Service Inventory-Revised (LSI-R) and the Self Appraisal Questionnaire (SAQ).

1.9 - Lack of Psychological/ Psychiatric classification

There is no psychological/psychiatric classification in existence to classify violent prone individuals. Some have found that most psychiatric decision making in regard to predictions for violent behavior is impressionistic rather than quantitative.

1.10 - Representativeness in the Decision making process

Although usually there are many factors to be considered
before reaching a proper decision, people use a limited number of such factors in reaching their decisions. It has been suggested that usually one factor predominates and has a significant influence in the psychiatric decision process. For instance, in the decision to classify "mentally disordered sex offenders," some found that previous conviction of the person for sexual offences was the only factor, which predominated the psychiatric decision. Others have found that experienced forensic psychiatrists relied primarily on the seriousness of the index offense in the prediction of dangerousness of mentally disordered offenders, and ignored valuable information such as the results of psychological assessments. Two studies demonstrated that factors other than the individual behavior affected the predictors' decisions. In the first study, social class and criminal history influenced evaluation of the individual potential for violence. In the second study, social power variables (e.g., IQ level, marital status, race, education level, urban rural, socioeconomic level, parental status, and age) affected the prediction decisions.

1.11 - Imprecise Training

It seems that the majority of clinicians who are usually involved in the prediction of criminal or violent behavior are not precisely trained for such a task. Psychological and psychiatric training programs do not include the prediction of violent behavior as a part of their routine training. It has been reported that many psychologists have received little training in forensic psychology. It has been reported that experienced forensic psychiatrists disagree among themselves on the prediction of violent behavior of offenders. Furthermore it was found that psychiatrists were no different than the teachers who were used in this study as lay persons, in predicting violent behavior. Psychologists also disagree among themselves. Recently it was reported that 1% of correctional psychologists in the United States (federal & state) have received formal training in forensic psychology.

1.12 - The assessor limitations

The assessor's own beliefs, feelings, and biases influence the outcome of his predictions. Some assessors have negative feelings towards the individual they are assessing (i.e., negative counter transference). For instance, some dislike dealing with a particular class of offenders, such as sexual offenders. On the other hand, some assessors have positive counter transference and are more tolerant to the offenders past than others. Also, assessors differ in their beliefs as to the treatability of violent offenders, which subsequently influences judgment and recommendations.

1.13 - Time

It has been argued that time is not an all or none phenomenon. He sees time as an important factor involved in the prediction process. He suggested that some predictions get better with time, such as predicting that everybody "in this room will be dead in a 100 years time." He also suggested that meteorologists can predict that it will rain next year. Clearly, such a prediction is not helpful, as the predictor should specify how much it would rain, when and where. It has been suggested that short-term predictions are more accurate than long term ones. Most of the recently developed actuarial measures now specify the time limit for the accuracy of their predictions.

2 - Clinical Variables Associated With Prediction of Violence and Recidivism

2.1 - Age

Findings about existence of a relationship between age of onset and future violent acts have been reported by many researchers. A positive relationship between age of onset and total number of youth convictions has been reported. Youths first convicted at the age of ten to twelve had an average of 7.17 convictions, while those convicted at the age from twenty to twenty-four had an average of 1.18 convictions. Furthermore, he reported that there is relationship between the age of onset and the length of the criminal career. Others reported that being a juvenile offender increases the individual's chances of becoming an adult offender by three and one-half times. Also, others suggested that number of arrests up to the age of 18 increased steadily after the age of onset. It has been found that the older the offender at first offence, the lower the probability of further criminal involvement. Another researcher reported that rate of arrests for 18 years olds for further violent charges is six times that of 30 years olds. It has been now accepted that the younger individuals commit more violent behavior and are at higher risk for re-offending.

2.2 - History of Criminal Involvement

Some researchers have reported that recidivism among juveniles up to their eighteenth birthday was 54 percent after the first arrest. This was increased to 56 percent and 72 percent after the second and third arrest respectively. It is also reported that a prior arrest of four times indicates an 80 percent chance of another arrest and 10 prior arrests lead to a 90 percent probability for the eleventh arrest. Also it was found that "chronic" offenders had 6 or more convictions prior to reaching the age of 25.

2.3 - History of Serious Violence

It has been reported that the probability of assaultiveness increase with each act of violence and that there is a positive relationship between seriousness of the first conviction and number of subsequent convictions. After a reviewed studies on juveniles and concluded that a relatively serious first offense predicted later serious juvenile offending. It has been suggested to include a history of serious violence as a predictor of the most substantial acts of violence.

2.4 - Number of Earlier Convictions and Prior release failures

A positive relationship between number of convictions at ages from 10 to 17 and number of convictions at the age of 17 to 24 was demonstrated. Similarly, it was demonstrated that future rate of offending was best predicted by the number of past crimes and a link between the number of previous prison terms served and recidivism. Prior release failures have been included in most tools designed for the prediction of violent and non-violent recidivism.

2.5 - History of Childhood Behavioral Problems

Research has indicated that conduct problems during childhood are among the best predictors of later offending and the development of a criminal career. It has been suggested that enuresis, pyromania, and cruelty to animals were good predictors of future violent behavior. Researchers found that a history of childhood problems such as hyperactivity, enuresis, temper tantrums, fighting, school problems, and an inability to get along with others significantly differentiates chronic aggressive from non-aggressive adults. Others found that aggression at age 8 is the best predictor of aggression at the age of 19. Others reported that 36 percent of the incidences of later violence could be accounted for by childhood predictive factors. These factors are: lack of parental supervision, lack of self-confidence of their mothers and being exposed to parental conflicts and or aggression.
Nothing found.
fear of causing harm to others. For example, it is reported that 75 percent of males involved in fatally battering babies gave unmistakable warning of their subsequent actions. It is suggested for clinicians to collect information about the offender stressors, coping mechanisms and styles, and the precipitating events, which led others to be concerned about the individual potential for violence. Also, several researchers suggested that the situational factors and the interaction between them and the personality attributes of the offender be considered in the prediction process.

2.13 - Leisure time.

Aimless and unproductive use of leisure time has been found to be link to predicting recidivism. Thus it is suggested that clinician examine the individual recreational hangouts.

2.14 - Availability of Victims and weapons

It is suggested that examiners investigate the future availability of means for committing future violence and the availability of likely victims as a criterion to be investigated when predicting criminal behavior and consider patterns of victim selection and the available means to violence.

3 Suggestions to help clinicians make accurate predictions.

3.1 - Forensic Clinicians must be fully knowledgeable and attain a high level of competency prior to taking on the task of predicting recidivism. As a minimum, clinicians must be fully aware of the variables relating to prediction of recidivism and also the variables that stand in the way of making accurate predictions. Combined, these variables are valuable in helping to make proper predictions. Also, clinicians must maintain their level of competency because developments in this area are changing rapidly. Workshops and journals such as Law and Psychiatry, Law and Mental Health, Criminal Justice and Behavior and Journal of Interpersonal Violence usually provide updated information about developments in the area of predictions.

3.2 - It is better, in particular for beginners, to use some of the already developed approaches, guidelines or processes in their assessments.

3.3 - More attention should be given to the available knowledge about the use of actuarial and other psychological measures in the process of predicting violent behavior. Use of a combination of the actuarial and clinical methods may be the best solution until better methods are developed. Using such methods would eliminate many of the obstacles currently standing in the way of accurate clinical prediction, such as subjectivity, in addition to achieving other advantages (i.e., achieving more accuracy in predictions and providing uniformity, consistency and equity in the decision making process).

3.4 - Clinicians must strive to provide accurate predictions and keep a balance between the potential harm to a victim and the rights of the offender and the benefits of society. An inaccurate prediction may result in harm to a new victim or unnecessary longer incarceration with its negative effects (e.g., unnecessary loss of the offender’s freedom, increase the costs on taxpayers, and aggravate the problems of prison over crowding).

3.5 - Clinicians must obtain the offender’s informed consent prior to the commencement of an assessment. Similarly, prior to releasing the report clinicians must share their findings with the offenders. Seek his input and possibly correct any mistakes. By following these steps, clinicians avoid unnecessary inconvenience for the offender, others and him/her self.

3.6 - Clinicians are advised to collect as much information as possible before making predictions. Using different methods of collecting the necessary data, such as conducting free and semi-structure interviews, helps the clinician to reach a better prediction. Poor evaluation is sometimes the result of not getting enough information, such as not obtaining police reports, official record of criminal history, information about his current offense, and previous forensic reports. It is further suggested that the clinician examine the detailed description of every crime and not to rely on the legal name of the offense. This is because in the plea bargaining process several charges may be reduced to a smaller number and less serious charges. Also because legal names can be confusing (i.e., assault can mean anything from involvement in a bar room fight to sadistic torture of a victim). Equally important is to examine the situational variables that the offender will face upon release and triggers, stressors, events such as mood state and substance abuse which may lead to criminality in a particular offender (i.e., circumstance under which risk increases for a particular offender). Investigating the offender’s future plans (eagerness/arranged for found employment, school) and the available support system on release (wife, parents, work) usually provide an idea about the offender’s motivation and seriousness to refrain from further criminal activities.

3.7 - Clinicians are advised to consider using multiple predictors when assessing recidivism. It has been demonstrated that predictability improves when one uses a variety of predictors. Similarly, it is reported that using composite measures of risk, which sample several predictor domains, produce higher correlations with recidivism than other scales or measures including antisocial personality scales. Also, it is reported that the assessment of characteristics across multiple domains in populations with a high-risk for violence, has produced more accurate, and therefore, more useful predictions. Some researchers have reported that composite actuarial measures of risk outperform individual static and dynamic predictors, and therefore, should be used in offenders' assessments.

3.8 - It is important to consider both static and dynamic variables. Prediction of recidivism should be based on a) static variables (historical factors which are not generally susceptible to change over time such as age at first offence, gender, race, prior criminal history, and historical family factors such as parental and family criminality, family rearing practices & structured dynamic variables which are also known as criminogenic needs and as those variables that are susceptible to change. Examples of these dynamic variables are antisocial cognition, values & behaviors, social achievement (employment /education), marital status, family support, criminal associates, substance abuse, personal/emotional, inadequate use of leisure time. Several researchers have reported on the relationship between dynamic variables and recidivism. Although research results have generally favored static over dynamic risk factors in making accurate predictions; sudden increase of the dynamic variables are highly predictive of failure on release. Furthermore, some have suggested that dynamic factors have as much predictive accuracy as static risk factors. The consensus is that both static and dynamic variables should be considered for the prediction of recidivism. Changes in the dynamic factors can come about by factors such as treatment.
and maturity. It is these dynamic factors that are targeted for interventions and treatment.

3.9 - It is important to consider the base rate issue. Understanding base rate is essential for specific groups of offenders. It has been suggested that accurate prediction is possible if: a) one is able to obtain accurate base-rate of violent or sexual re-offence in a particular subgroup of offenders; b) the base rate of violent or sexual re-offending is approximately 25 to 75 percent for that subgroup; c) one is able to identify specific predictor variables that are positively or negatively related to violent or sexual re-offending for that subgroup.

3.10 - Clinicians would do better if they report their finding on a probability scheme and to refrain from using definitive statements in their predictions, particularly those statements that are not extensively substantiated by research findings. Examples of these statements will be reported later in this paper.

Authors’ Note:
*Dr. Loza is Adjunct Assistant Professor (Psychiatry), Queen's University; Adjunct Professor (Psychology), Carleton University; Chief Psychologist, Kingston Penitentiary, Canada. He is bilingual (Arabic and English) and has published extensively and offered workshops to Forensic psychiatrist and psychologists in several countries. He has published a psychometric measure which helps clinicians with the prediction of violence and recidivism among Forensic/Correctional populations. Dr. Loza is currently seeking interested researchers (Psychiatrists & Psychologists) from the Arab world to collaborate with him to complete studies and develop culturally sensitive assessment measures and treatment programs targeting violent individuals. His e-mail address is cited at the end of this article.

The opinions expressed are those of the author and do not necessarily represent the official views of any institution. Address all correspondence to Wagdy Loza, 4 Strathaven Pl., Kingston, Ontario, Canada, K7M 6S6, WML@post.queensu