Family Violence among Adults with Severe Mental Illness: A Neglected Area of Research

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FAMILY VIOLENCE AMONG ADULTS WITH SEVERE MENTAL ILLNESS

A Neglected Area of Research

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Violence against family caregivers by their adult relatives with severe mental illness is a taboo area of public discourse and scientific research because of fears of further stigmatizing this population. Yet, these families experience violence at a rate estimated to be between 10% and 40%, which is considerably higher than the general population. This article reviews the limited research on violence of adults with severe mental illness against their family caregivers and proposes a conceptual framework that can further stimulate study in an area that has been neglected too long by both mental health and family violence investigators. Research on this topic is essential in developing effective policy and practice interventions.

Key words: *family caregiving, family violence, severe mental illness*

IN MENTAL HEALTH FAMILY CAREGIVING LITERATURE, there are occasional references to threats and acts of violence directed at family members by their ill relative, but there has been limited empirical research on the topic (Karp, 2001; Vaddadi, Gilleard, & Fryer, 2002). In part, this research gap results from the fear of families, advocates, and researchers promoting the stigmatization of persons with severe mental illness (SMI; Backlar, 2002). However, family violence needs to be raised as a primary concern in the mental health field; otherwise, essential family supports for individuals with SMI may well be lost. Until we better understand violence carried out by persons with SMI, we cannot effectively control the stigma against individuals with SMI (Torrey, 1994). As in the field of domestic violence, it was not until the personal trouble of family violence was transformed into a larger societal concern that violence became a legitimate issue worthy of empirical investigation (Gelles, 2000).

The majority of individuals with SMI live in the community. As a result, families have assumed the major responsibility for the care of their mentally ill relatives whether the relative resides in the same or separate domicile (Carpentier, Lesage, Goulet, Lalonde, & Renaud, 1992; Solomon, 1994). It is estimated that 50% of persons with SMI live with their families (Beeler, Rosenthal, & Cohler, 1999; Goldman, 1982; Guarnaccia, 1998) and that 77% have regular contact with their family, regardless of the living arrangement (Lehman &

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Steinwachs, 1998). Even when the ill relative does not live with the family, research demonstrates that families still provide social, emotional, and financial support (Clark & Drake, 1994). This places an enormous burden on families, particularly mothers, who have to deal with the vicissitudes of the behavioral manifestations of these disorders, which may include violent and destructive behaviors. Families are generally unprepared to manage these violent behaviors, which further compounds their stress and burden in providing care for their mentally ill relative (Hyde, 1997). A lack of knowledge and ability to manage violent behaviors may exacerbate aggressive incidents, putting the safety of the entire family unit at risk. Furthermore, the tensions caused by the potential for future violent situations may affect the physical and emotional health of family members, and therefore, this is considered by some to be the primary burden of caregiving (Hyde, 1997). Families may be forced to dismiss their relatives to the criminal justice system or to the streets (Solomon, Draine, & Delaney, 1995). As Stone (1975) noted, "A principal social function of the law-mental health system is to provide technical care for those individuals who are temporarily or permanently excluded from society's principal caretaking unit, the family" (p. 13).

Until this past decade, investigations of the association of violence and serious mental illness were generally restricted to inpatient settings at admission, on the hospital unit, and at follow-up after discharge and the criminal justice arena, with little examination of this association in community settings, other than public opinion surveys (Torrey, 1994). The reframing of violent behavior from one of a crime to a public health concern has made violence among persons with SMI a more socially acceptable topic of research (Department of Health and Human Services, 1990). Furthermore, the National Institute of Mental Health (1991) noted the importance of assessing violence in families with individuals with SMI separately from public acts of violence, as each requires different clinical and regulatory interventions. The report goes on to state that "there is increasing awareness that patient violence is not a unified phenomenon and that research on patient violence against family members may prove particularly important" (p. 44). Given the importance of this issue, which has been neglected by investigators in both domestic violence and mental health, this article will review the literature to date and develop an explanatory model to stimulate research on this topic. Furthermore, future directions for research, practice, and policy will be discussed.

RATES OF VIOLENCE AGAINST FAMILY MEMBERS BY THEIR RELATIVES WITH SMI

Research on violence against family members by their psychiatric ill relative has primarily been conducted at the point of psychiatric hospital admission and, for the most part, has used chart reviews for purposes of data collection. These studies have been basically descriptive. For example, Binder and McNiel (1986) found that 15% of patients admitted to a locked university-based short-term inpatient psychiatric unit had assaulted another person within 2 weeks of admission. More than half of these assaults (8% of the total population) were against family members, primarily parents and spouses, with a few being directed at children, siblings, and other relatives. Straznickas, McNiel, and Binder (1993) expanded the earlier study of Binder and McNiel (1986) with additional years of data and found that 19% of persons admitted to the same inpatient unit had physically assaulted a family member within the 2 previous weeks. Again, more than half of all the assaults were targeted at a family member, with most attacking a parent or spouse.

Another study, based on evaluation interviews of individuals visiting the emergency room of a teaching and research hospital, found that 36% of the sample had a recent assaultive incident, as defined by one of the physical violence categories of an adapted version of the Conflict Tactics Scales (Straus, 1979). About half (17%) of these patients (i.e., the SMI relative) were physically abusive toward a family member (Gondolf, Mulvey, & Lidz, 1990). Furthermore, Gondolf et al. (1990) found that these were not isolated incidents, as patients who

were involved in a recent family assault were likely to have engaged in other incidents of family violence. Tardiff and Koenigsberg (1985) determined that 3% of patients being evaluated in the outpatient psychiatric department of a large hospital engaged in physically assaultive behavior toward another person just a few days prior and that half of the targets of the assaults were family members.

A study conducted in the psychiatric unit of a general hospital in Melbourne, Australia, found that 32% of family members had been struck on at least one or two occasions by their patient relative. Twenty percent had incurred a physical injury, and only 10% indicated that they had not been subjected to any form of verbal or physical abuse (Vaddadi, Soosai, Gilleard, & Adlord, 1997). In another study, some of the same researchers (Vaddadi et al., 2002) assessed abuse of family caregivers by patients in a community mental health center. The investigators found similar rates of abuse sustained by family caregivers in the outpatient setting as in the inpatient setting. They found that

> 40% of caregivers had been threatened by violence at some point in their relative's illness—22% in the last year; 40% had been hit or struck at some point—24% in the last year; and 17% had sustained physical injury—4% in the last year. (Vaddadi et al., 2002, p. 151).

Greenberg (personal communication, August 26, 2002), in his study of parent caregivers of adults with SMI, found that 39% of families had been physically threatened since the ill relative had been diagnosed and that 83% of the threats were targeted at the primary caregiver. Additionally, 26% reported that their adult child had struck or injured someone in the household, and 80% of the victims were parents. Finally, 4% had reported that their adult child had been violent in the past year.

Swan and Lavitt (1988) surveyed National Alliance for the Mentally Ill (NAMI) members, requesting respondents to assess the frequency of aggressive and violent behavior in the home within the past year, and found that 38.4% of the respondents indicated that their relative had destroyed property or attacked someone in the past year, 11.2% reported their relative had been violent more than a year ago, and others noted that their relative had engaged in verbal abuse. In a study of NAMI members in Massachusetts, 50% of those surveyed indicated that they had to cope with the violent behavior of their relative on more than one occasion, and 33% reported calling the police (Lefley, 1996). Solomon et al. (1995), in an assessment of family educational interventions, found that 8.4% of family members reported taking out restraining orders against their relative because of violent and threatening behavior. In the elder abuse literature, investigators have noted that some of the perpetrators are persons with a psychiatric history. Greenberg, McKibben, and Raymond (1990) specified that 16% of the perpetrators in their sample were persons with SMI. Other elder abuse studies have simply lumped all dependent adults into one group without differentiating the nature of the dependency (Anetzberger, 1987; Pillemer, 1993).

Steadman et al. (1998) assessed rates and targets of violence for a sample of patients discharged from a psychiatric hospital for 1 year after their release and compared these to a sample of their neighbors. They found that the targets of violence and aggressive acts for both samples were most often family members. For patients, just more than half (51.1%) of the targets were family members, and this was the case for about two thirds (64.3%) of the community neighbor sample. The family targets further broke down for the patient sample to spousal targets (23.3%), girlfriend or boyfriend targets (33.8%), parental targets (2.5%), child targets (2.5%), and other family members (9%).

In summary, it appears that a conservative estimate of rates of violence toward family members by a relative with a psychiatric disorder is between 10% and 40% since diagnosis of the illness. Because a number of the prevalence estimates were based on short time frames, with few more than a year, and the likely tendency of families to underreport violent events, the annual rates are undoubtedly higher. The significance of this problem is more apparent when placed in the current context of evidence, which indicates that persons with SMI have a moderately elevated risk of violence compared to the general population, and when the family mem-

ber is psychotic or is abusing substances; and consistently, 50% to 65% of these targets are family members (Estroff, Swanson, Lachicotte, Swartz, & Bolduc, 1998; Estroff & Zimmer, 1994; Estroff, Zimmer, Lachicotte, & Benoit, 1994; Herman, 1986; Lefley, 1996; Link, Andrews, & Cullen, 1992; Link & Stueve, 1994; Steadman et al., 1998; Swanson, 1994; Swanson, Holzer, Ganju, & Jono, 1990). Furthermore, when taking into account that substance abuse disorders among the population with SMI is estimated to be approximately 50%, the risk of violence is likely to be relatively high for this population (Lehman, Myers, Dixon, & Johnson, 1996; Regier et al., 1990).

CONCEPTUAL MODEL OF RISK OF VIOLENCE AGAINST FAMILY CAREGIVERS BY THEIR RELATIVES WITH SMI

Predictors of violence by persons with a severe psychiatric disorder have predominately been confined to the clinical and sociodemographic characteristics of the perpetrator (Monahan, 1992; Monahan & Steadman, 1994). However, researchers have noted that these conceptual frameworks do not take into account the contextual influences on the occurrence of violence. As a result, there is inadequate evidence in the development of violence prevention (Estroff et al., 1998; Swanson et al., 1998). Many investigations frequently provide no information on the identity of the targets of the violence or on the circumstances under which the violence occurs.

Violence perpetrated by persons with SMI against their family caregiver cannot be explained by simply attributing incidents to psychotic symptoms because the majority of individuals with these symptoms do not strike out at their family caregivers. Rather, violence is a complex phenomenon that is imbedded within the social circumstances and life experiences of the individual, as a violent incident is not merely a unilateral phenomenon (Estroff et al., 1998; Hiday, 1995; Mulvey, 1994). The family context, particularly family relationships and circumstances surrounding violent episodes, is crucial for understanding the violent behaviors of persons with SMI because much of the violence by persons with SMI takes place within the family unit. However, the research on the relationship of mental disorders and violence has been disconnected from research on domestic or intrafamilial violence (Estroff et al., 1998). Reconceptualizing violence in the families of adults with SMI as domestic violence necessitates an expansion of the explanatory conceptualization "beyond symptoms, behaviors and characteristics of the diagnosed family member" (Taylor & Estroff, 2002, p. 596).

To date, only one investigation has examined factors with the potential to explain violence specifically against their family members by adults with SMI. To develop an adequate conceptual framework, we need to draw from related areas of literature on family violence, violence and mental disorders, and mental health family caregiving. In doing so, three potential explanatory factors emerge: (a) psychiatric ill relative factors, (b) family caregiver factors, and (c) quality of the interpersonal relationship between family caregivers and psychiatric ill relatives. Inherent individual characteristics, such as demographic and clinical characteristics; psychosocial factors not inherent to the individual, such as compliance with treatment and social supports; as well as personal experience with and a history of violence have been found to be related to violence in persons with SMI. Similarly, demographic characteristics, mental and physical health status, and history of and experience with violence can make the family caregiver vulnerable to being a victim of violence, and the quality of the relationship between family caregiver and his or her ill relative may have an influence on a relative's implementation of a violent act against his or her caregiver. The violent act may result from the ill relative's perception of threats by the caregiver, the relative's dependence on the caregiver, or as a response to the strategies employed by the family caregiver to manage the relative's difficult behaviors. This tripartite framework compensates for the limitations of prior research on predicting violence that narrowly focused on the patient alone, omitting the neglect of the victim and the relationship of the perpetrator and the victim (Estroff & Zimmer, 1994; Hiday, 1995; Monahan & Klassen, 1982). Although the pro-

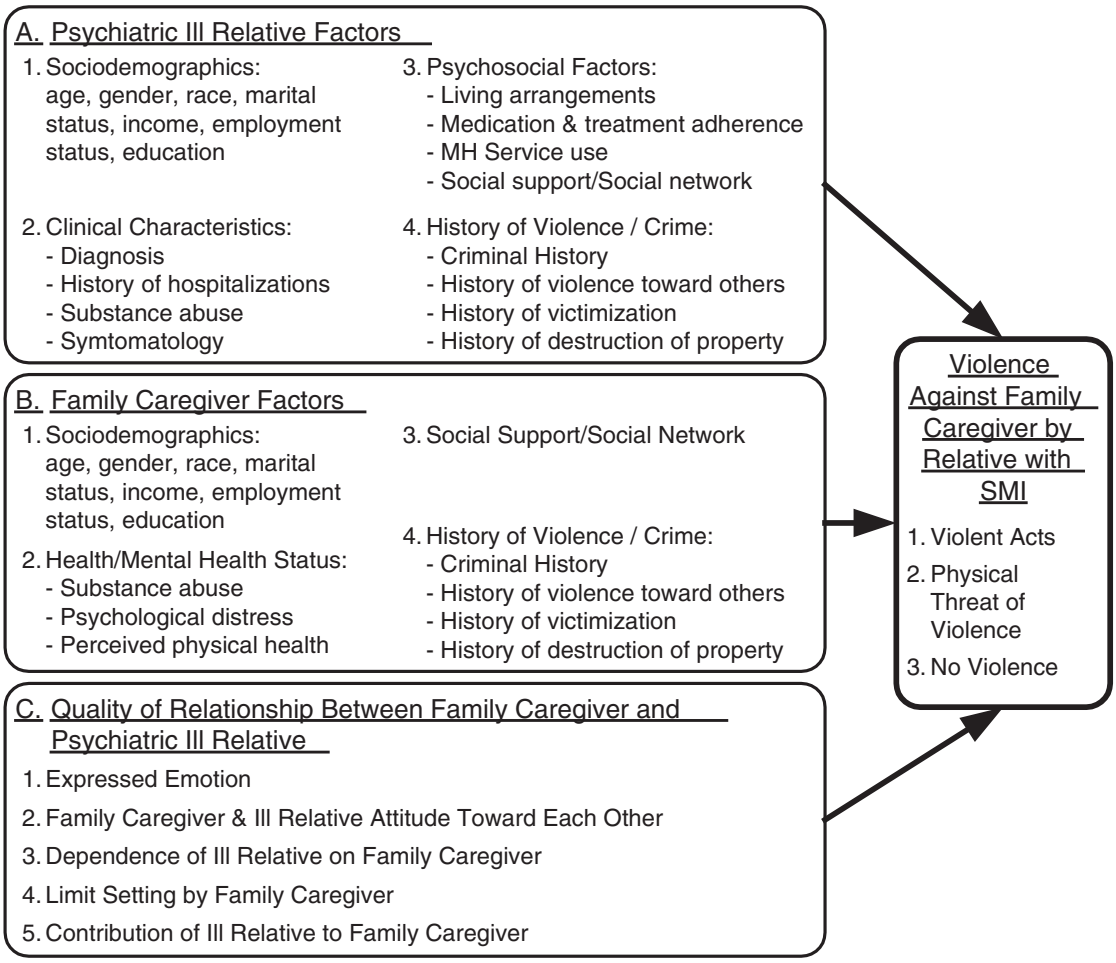

Figure 1: Conceptual Model of Factors Explaining Violence Against Family Caregivers by Their Relative With Severe Mental Illness

posed conceptual model is parsimonious as it specifies unidirectional influences, it is theoretically and empirically important to consider all possible relationships among the various factors (see Figure 1).

Psychiatric Ill Relative Factors

Sociodemographic characteristics. Social demographics, such as income, age, and gender, have well-established relationships to violence among the general population as well as the mentally ill (Hiday, 1995). However, there is a good deal of variance within the relationships, depending on such factors as the operationalization of the term *violence* and the sample being employed (Klassen & O'Connor, 1994). For example, when violence is assessed in terms of arrests for violent crime, then gender, age, socioeconomic status (SES), and race are strongly associated (Klassen & O'Connor, 1994). In the arena of spouse abuse, there is a great deal of inconsistency in the association of sociodemographics and violence (Hotaling & Sugarman, 1986). Newhill, Mulvey, and Lidz (1995), in their study of emergency room assessments of persons with psychiatric disorders, found that female patients engaged in more family violence than males. This finding was explained as resulting from differences in opportunities of involvement outside the home, with females having fewer contacts outside the home environment. More specifically, two studies that assessed violence in families with persons

with SMI found that those who were violent toward family members tended to be younger (Gondolf et al., 1990; Vaddadi et al., 2002; Vaddadi et al., 1997). Another study found that age was related to the target of violence, with younger persons with SMI targeting parents and older ones targeting their spouses (Straznickas et al., 1993). Swanson et al. (2002) found no association between gender and violent behavior among the population with SMI. However, these investigators noted that the context precipitating violence, as well as the causal pathways, may differ by gender for persons with SMI; although, the prevalence rates may be similar.

When violence is operationalized in terms of arrests, race, such as being African American, is related to violence. Swartz et al. (1998) found that African Americans were more likely to be arrested for violence and be a victim of violence. These researchers propose that the nature of the environments in which persons with SMI live is a possible explanation for the race finding. For example, African Americans frequently reside in "high-crime areas experienced as dangerous and threatening" (Swartz et al., 1998, p. 230), which may explain the higher rates of arrest or victimization, as opposed to it being simply a function of race. This is a conceptually similar argument put forth by Hiday (1995) regarding lower SES. Lower SES communities are characterized by "powerlessness, exploitation, and threat of victimization" (p. 125). For persons with thought disorders, lower SES environments may produce feelings of suspicion and mistrust that may then become incorporated into paranoid beliefs. The symptoms of mental disorder in combination with a high degree of violence in the environment may promote violence as a solution to conflict. Consistent with this theory is Swanson et al.'s (2002) recent finding that increased exposure to community violence by adults with SMI is related to increased probability of individuals engaging in violent behavior themselves.

Clinical characteristics. The two clinical factors most consistently associated with violence among persons with a psychiatric disorder have been active psychotic symptoms and substance abuse (Monahan, 1992; Mulvey, 1994; Torrey, 1994). For example, Mulvey (1994) reports that long-term patterns of drinking are more predictive of violence than drinking at the time of the incident. Other studies have found that individuals with comorbid psychiatric and substance abuse disorders were at an increased risk of violence (Mulvey, 1994). Furthermore, perceived hostility is a significant predictor of both violent acts and threats, and the attack dimension of the structural analysis of social behavior is related to threats of violence (Swanson et al., 1997). Threat and override control are related to an increased risk of violence (Link & Stueve, 1994; Swanson et al., 1997).

One study on violence in families with persons with SMI reports that the type of violence and the severity of the violence differ by diagnosis, with individuals with schizophrenia having a higher level of abuse toward others than those depressed or those with nonpsychotic disorders (Vaddadi et al., 1997). However, individuals with bipolar disorders are as abusive to their caregivers as those with schizophrenia. Straznickas et al. (1993) note the presence of paranoid delusions and substance abuse at the time of the attack toward family members in a number of incidents. Lefley (n.d.) points out that many families report aggressive or assaultive behavior seeming to occur with no provocation. This may likely be the result of symptoms of the disorder, such as psychotic thinking or irrational beliefs about the specific targets (Junginger, 1996; Link & Stueve, 1994). Mulvey (1994) indicates that violence among persons with severe psychiatric disorders is a dynamic process in which those with SMI may sometimes be at an increased risk because of the emergence of certain symptoms or beliefs.

Psychosocial factors. Psychosocial factors, such as social supports, size of social network, living arrangement, and compliance with medication, are factors associated with or predictive of violence by persons with SMI. Some of the same characteristics that are related to treatment noncompliance also seem to be associated with violence (Swanson et al., 1997). Newhill et al.'s (1995) previously discussed findings that female patients are more likely to strike out at

their families are relevant when considering the extent and nature of the social support network, as the authors state that women's fewer social contacts with others outside the home may affect the likelihood of violence toward family members for those women prone to violence. Generally, social support networks for persons with SMI were found to be of limited size and comprised mostly family members (Bengtsson-Tops & Hansson, 2001), whereas Estroff et al. (1994) found that those individuals with mental health providers in their network were less likely to commit a violent act. Monahan (1988) noted that friends of persons with a mental illness functioned "more as instigators of violence rather than as sources of 'social support'" (p. 252). Citing a study in which the investigators found that the greater the number of friends of a released patient and the more time spent with those friends, the more likely the patient was to commit a violent act. Criminologists also discuss a similar phenomenon in which the support system functions either to encourage or discourage involvement in crime (Colvin, Cullen, & VanderVen, 2002).

Swanson et al. (1998) found that impairment in social relationships for persons with SMI is associated with violent events. Individuals with high degrees of functional impairment and greater frequency of contact with family and friends have an increased probability of violent acts, whereas with higher functioning individuals, more contact decreased their risk of violence. Social contact for some persons with a severe psychiatric disorder may increase stress and conflict as opposed to provide support and improve their quality of life (Mulvey, 1994; Swanson et al., 1998). Moreover, symptoms of these severe disorders can affect a person's ability to assess situations, to relate to family and friends, to resolve conflicts, and to obtain needed supports. Consequently, a person's living arrangement can influence the extent to which that person is engaged in violent behavior. Straznickas et al. (1993) found that patients who attacked family members were more likely to live with their victims than patients who attacked nonfamily members. Although access and availability were certainly factors in these situations, they did not account for all of the violence, as some patients attacked people other than ones with whom they lived. Given that symptomatic behavior influences the risk of violence by persons with SMI, a key area of concern for this population is compliance with prescribed medication and services (Monahan, 1988). A recent analysis by Swanson et al. (1997) found a relationship between substance abuse, psychotic symptoms, and lack of contact with specialty mental health services and an increased risk of violence. Similarly, Estroff et al. (1998) and Estroff et al. (1994) found that those individuals with the most mental health visits had a decreased risk of engaging in violence.

History of violence and crime. In most social research, past behavior is the best predictor of future behavior. Previous studies have found that patients who have a history of violence are likely to be violent again (Hiday, Swanson, Swartz, Borum, & Wagner, 2001). Similarly, patients with histories of arrests prior to hospitalization were more likely to have subsequent arrests for violent offenses than controls (Torrey, 1994).

There are findings that are consistent with an intergenerational transmission explanation of family violence, also referred to as the intergenerational cycle of violence. This is often conceptualized as a learning theory approach to violence, which assumes that experience and exposure to violence may result in a child learning that violence is an appropriate response and at what targets it is acceptable to direct violence (Gelles, 1987). Thus, a history of violence in the family of origin, whether it was directed toward the ill relative or others, is a relevant factor.

Binder and McNiel (1986) identified four types of families of patients who assaulted a family member: multiple mental illness, multiple violent, delayed help seeking, and prompt help seeking. These authors noted that the violence of the psychiatric patient was "as much related to the family's customary pattern of interacting as it was to the psychiatric disorder" (p. 136), which is consistent with the cycle of violence theory. Gelles (1987) noted that throughout the family violence research, the one significant consistent finding is that one form of

violence in a household is related to the presence of other types of violence.

In the past decade, there has been increasing recognition of the history of abuse of persons with SMI, in terms of both spousal and child abuse (Carlile, 1991; Jacobson, 1989). Estimates of physical and sexual abuse of persons with SMI range from about 40% to more than 90%, which is somewhat contingent on the gender distribution of the sample (Bryer, Nelson, Miller, & Krol, 1987; Carmen, Rieker, & Mills, 1984; Goodman, Rosenberg, Mueser, & Drake, 1997; Herman, 1986; Hiday et al., 2001; Jacobson, 1989; Rose, Peabody, & Straitigeas, 1991). Others have found evidence of batterers as well as victims of domestic violence in patient populations of outpatient clinics (Post et al., 1980). Much of this abuse goes undetected because of the fact that psychiatric clients often are not asked about their abuse history (Post et al., 1980; Rose et al., 1991). Swanson et al. (2002) report that histories of sexual and physical abuse among adults with SMI are bivariately related to engaging in violent behavior. However, victimization throughout one's life was significantly associated with violent behavior, whereas being a victim at only one point in life was no more likely to result in violence than not having been a victim.

Family Caregiver Factors

Sociodemographic characteristics. Family caregivers of persons with SMI are an aging population (Lefley, 1987). With aging comes the possibility of being frail and, therefore, potentially vulnerable to violence and victimization. Research on adolescent-to-parent abuse has found that mothers are more often abused than fathers and that they are more frequently abused by their sons (Gelles, 1987). Similarly, in the psychiatric literature, we find that mothers are more often abused by their psychiatrically ill son (Estroff et al., 1998; Estroff et al., 1994). Maternal deaths through violence by their ill child have anecdotally been reported "in NAMI circles as well as in print" (Lefley, 1996, p. 73). Some of the same phenomena related to race and social status of the ill relative, discussed previously, are also relevant to their caregivers, and the intergenerational cycle of violence may be operative with the caregiver as well as their ill relative.

Health and mental health status. Research consistently shows that older individuals with physical and mental health impairments are at a greater risk of being abused than others of comparable age and in better physical and emotional health (Gelles, 1987). In research on problem-solving interactions between depressed women and their spouses, depressed wives tended to elicit more aggressive behavior from their husbands than nondepressed wives (Biglan et al., 1985).

Social support and social network. Social isolation has been found to be associated with abuse of the elderly (Homer & Gilleard, 1990), and given that parents of children with SMI are an aging population, this phenomenon may be functioning among adult children with psychiatric disorders. Family caregivers who have limited social networks and are aging may be at a greater risk of abuse from their relative with a mental illness. This vulnerability may result from lack of visibility of the relationship problems by others or by the hostility that may result from the stress of caregiving without assistance of others.

History of violence and crime. Caregivers who themselves have been victims of abuse are likely to be at an increased risk of being a target of violence from their ill relative. In addition, caregivers who engage in violence or criminal activity may be perceived by their ill relative as threatening (Estroff et al., 1994). Furthermore, violence could conceivably be the family's manner of resolving conflicts, and their ill relative may continue this pattern of violence, as many ill relatives are likely to be adult children of the caregiver (Gelles, 1987).

Quality of Interpersonal Relationship Between Ill Relatives and Family Caregivers

The relationship between the family caregiver and his or her relative with a psychiatric

disorder has the potential for a good deal of conflict. Because of the disturbing behaviors associated with SMI, families may set limits on the behaviors of their relative, such as not drinking in the house, smoking only in certain rooms, or receiving spending money only if they take their prescribed medication. These behavioral management techniques used by families of the mentally ill are very similar to what has been referred to as therapeutic limit setting employed by service providers (Neale & Rosenheck, 2000). These persuasive or coercive actions can lead to tension between the ill person and the individual implementing these techniques, whether it's a family member or a provider. Straznickas et al.'s (1993) findings suggest that assaults on family caregivers frequently followed attempts to set limits on their relative's behaviors. These limiting actions may have been perceived by the ill relative as coercive and hostile on the part of the family member.

Family tensions arise from careless or deliberate destruction of property, unwillingness to take baths, temper tantrums, and bizarre behavior of the ill family member (Gubman, Tessler, & Willis, 1987; Hyde, 1997). In addition, attempts to bring the relative to a treatment facility, specifically for admission or efforts at involuntary commitment, can provoke violence toward the caregiver. Binder and McNiel (1986) found this to be the situation in their study assessing reasons for hospital admission of assaultive and nonassaultive patients.

Estroff et al. (1994) considered the interpersonal relationships between persons with SMI and their family members and the perceptions of persons with SMI to be significant in assessing risk of violence. This was based on the findings that respondents with SMI were violent when their significant others were perceived as threatening, but they did not see themselves as being threatening in return. The researchers noted that "respondents who were violent felt malice and danger from significant others and perceived and experienced hostility in their interpersonal networks" (p. 677).

A parallel area of research on intrafamilial relationships is expressed emotion (EE), which comprises hostility, criticism, and overinvolvement of families with a relative with SMI. This research has consistently found that high levels of EE in family members coupled with high rates of contact are associated with increased rates of relapse in their ill relative (Bebbington & Kuipers, 1994; Falloon, 1988). Because relapse has frequently been measured by rehospitalizations and because rehospitalization has been found to be related to assaultive behavior of the ill relative, it is reasonable that EE is related to violence on the part of the psychiatric ill relative. The relationship of EE and violence is indicated as a promising area of research by both Estroff et al. (1994) and Swanson et al. (1998). As Gibbons, Horn, and Powell (1984) noted, family members under a great deal of stress in caring for a disturbed relative are "likely to behave in ways that exacerbate the situation" (p. 77). Negative attitudes may produce hostile and aggressive feelings that may provoke violence.

Another aspect of the relationship between family caregivers and their relatives with a psychiatric illness in which there is evidence of an association with violence is the dependence of ill relatives on their caregivers. The elder abuse research reports that contrary to the dominant view that abusers are caregivers who are under extreme stress (Steinmetz, 1993), a more promising explanation is the dependence of a deviant or problem abuser on the victim (Pillemer, 1985, 1993; Pillemer & Finkelhor, 1989; Pillemer & Suitor, 1992). Pillemer and Finkelhor (1989) found that elder abusers were predominately dependent for financial assistance, housing, social support, and other help and were children or spouses who were "disabled, cognitively impaired, or mentally ill" (p. 180). Similarly, Estroff et al. (1994) found that those who were more financially dependent on their families were more likely to threaten others or behave violently.

In response to aggressive and threatening behavior on the part of their ill relative, families develop a variety of strategies for dealing with these behaviors. Birchwood and Crochrane (1990) categorize the coping styles of these families into three basic categories: (a) submission style, in which the family "acquiescences to the demands or challenges of the" relative (p. 860); (b) conflict style, which includes verbal retaliation to the aggressive demands of the ill relative;

and (c) avoidance style, in which the family minimizes the demands of the ill relative or physically escapes from the situation. Families describe their behavior in this latter category as "walking on egg shells" or "peace at any price" (Hyde, 1997; Lefley, 1996).

The relationship between the family caregiver and the ill relative may also have some positive components that may function as protective factors against violence. Contributions to the household by a relative with SMI may be gratifying to the caregiver and therefore result in less hostility and criticism toward the ill relative (Greenberg, 1995; Greenberg, Greenley, & Benedict, 1994).

FUTURE RESEARCH DIRECTIONS: METHODOLOGICAL CONSIDERATIONS

Research needs to identify modifiable factors to reduce violence against family caregivers by persons with SMI. Yet, to date, research in the area of family violence of persons with SMI is primarily descriptive. There have been only three studies published that specifically examined violence within families with a relative with SMI. Two Australian studies assessed the consequences of violence of persons with SMI against their caregivers with regard to the burden that these family caregivers faced (Vaddadi et al., 2002; Vaddadi et al., 1997). Estroff et al. (1994) conducted the only analysis that assessed social network variables, including family characteristics and context, in an attempt to explain violence by individuals with SMI. However, the results of these analyses were limited by the fact that the study was a secondary analysis of data from an earlier study that was conducted for a very different purpose.

A major methodological consideration in testing the proposed model, diagrammed in Figure 1, requires accessing an appropriate sample of people who have "engaged in or threatened violence" (Klassen & O'Connor, 1988). Violence, in general, including violence among the severely mentally ill, is a low base-rate phenomenon. Therefore, the sampling strategy needs to ensure access to enough individuals with SMI, who have contact with their families, and who have engaged in acts or threats of violence against their family caregivers. General media advertisement to recruit this specific population would not likely yield an adequate sample within a reasonable time frame. Snowball recruitment through family groups, such as the NAMI, would likely produce a sufficient size sample but one that is biased. NAMI members tend to be Caucasian and middle class, and it is important to include a diverse population regarding race, class, and ethnicity. An additional problem is that family groups may be unwilling to participate in a study on this topic because of their fears of further stigmatizing or inciting their ill relatives. Recruiting through community mental health agencies is a possibility; however, the resulting sample may produce a number of potential participants with whom the violence may not have occurred recently, which would limit the validity of factors that explain the specific violent acts or threats. Some feasible sites for recruitment are psychiatric emergency rooms, crisis services, or hospital admission programs because prior research seems to indicate that a precipitant for psychiatric admission is violence directed toward the family by the patient. However, there are logistical and ethical procedures to be considered when recruiting patients at a point of crisis.

Necessary sampling strategies require recruiting to purposively fill the categories of the dependent variable: acts of violence, threats of violence, and neither acts nor threats of violence in sufficient numbers for statistical power. This sampling design would lead to a cross-sectional design rather than a longitudinal one. A cross-sectional design limits causal explanations and requires care in ensuring proper temporal ordering of explanatory variables of acts or threats of violence (for instance, social isolation). Given the low base rate of violence, a longitudinal study requires following a large sample for a lengthy time period to obtain enough variance on the dependent variable. This would be an extremely costly study.

Recognizing the sampling challenges, one then faces measurement issues. The only source of data for the diversity of measures posed is self-report from both the family caregiver and the relative with SMI with its attendant ques-

tions of validity. Both members of the dyad need to be willing to give consent to provide information on the violent acts or threats of violence. Therefore, if the design is to recruit adults with SMI from a psychiatric emergency room setting, these individuals must provide the necessary information to contact their family caregivers to determine their willingness to participate in the proposed study. Likewise, if families are recruited, they need to provide contact information for their ill relative.

It is important to emphasize that the investigation of an area with limited research requires more than a purely quantitative approach in testing the model. Testing the proposed model (Figure 1) requires borrowing measures from a diversity of areas, which raises questions of validity. Quantitative measures provide a limited lens on viewing this issue. The complexity of the proposed topic area necessitates a mixed methodology of quantitative as well as qualitative interviews. In-depth interviews would provide a deeper understanding of the circumstances and processes under which violence occurs as well as give insight into the adaptive or maladaptive coping mechanisms of families who experience either acts or threats of violence by their ill relative.

Implications for Practice

Investigating family violence perpetrated by individuals with SMI will assist in the identification of possible risks factors for violence against a family caregiver by their relative with SMI. Furthermore, it will help to distinguish whether the proposed risk factors for the population with SMI are the same as those found in nonfamilial settings. Currently, there are a number of family education programs that exist for families with an adult with SMI. These are general education programs about the etiology of the disorder, treatment options, available resources, and ways in which to cope with the illness and to manage the ill relative's behavior. Some of these programs offer skills training as well as general information. Family education programs could also include information on managing aggressive, volatile, or assaultive behaviors; however, they do not emphasize these issues.

Similarly, domestic violence intervention programs use an education and skills training approach in anger management interventions. These intervention programs primarily use a group approach to treatment. Existing programs are not designed for the needs of individuals with SMI. In fact, individuals with SMI are often screened out of anger management treatment programs entirely. Clearly, there needs to be modifications to existing anger and violence intervention programs to effectively address the needs of individuals with SMI. Group intervention programs geared specifically for individuals with SMI, who manifest violent behavior, are needed to effectively treat this population.

Implications for Policy

A shift in current public policy must be formulated to reduce the burden of violence on families while maintaining a public health perspective and, at the same time, not criminalize violence by adults with SMI against their family caregivers. As noted earlier, families who confront acts of aggression by their ill relatives frequently resort to police intervention because of the lack of other alternatives. In some cases, mental health providers suggest that families file restraining orders against the perpetrator with SMI. With extremely restrictive commitment laws, the violation of a restraining order may be the only means for the ill relative to receive needed mental health treatment, as jails may have their own mental health programs or be a pathway to psychiatric treatment. Recently, there has been the development of a variety of mechanisms to decriminalize potentially criminal behaviors of adults with SMI when behaviors appear related to the psychiatric disorder and there is lack of treatment. These programs include mental health courts (Haimowitz, 2002; Steadman, Davidson, & Brown, 2001) and jail diversion programs (Draine & Solomon, 1999). These alternatives generally deal with nonviolent misdemeanor offenses. Currently, there has been no discussion as to whether these mechanisms could include domestic violence offenses,

as this topic area continues to be a taboo subject in the policy arena. As Don Richardson, a family advocate, noted more than a decade ago, families must "come out of the closet and prepare themselves to talk about aggressive and volatile behaviors. We can no longer pretend that this is alien to our collective experience" (Hatfield, n.d., p. 7). However, legal mechanisms will not be effective without specialized programs for both the family member and their ill relative.

A major obstacle affecting any policy initiative is who will pay for these services, specifically for families. Many family educational programs are supported by family groups. However, this is unlikely to be the case for the proposed interventions, given the current concern regarding the stigma around violence for the population with SMI. Third-party payers generally only reimburse for services for the identified patient. Services for families, who may encounter violence at the hands of their ill relative, are not covered by current insurance practices.

CONCLUSION

It is crucial that the issue of violence by adults with SMI against their family caregivers gains acceptance as a legitimate area of research. Without adequate scientific evidence, it is impossible to craft policies and implement intervention programs that effectively address the needs of a population that should no longer be hidden from our collective view. Individuals with SMI and their family caregivers deserve no less than is provided to those without special needs. In fact, one could argue that this vulnerable population and their families are in need of special protection to assure their safety and the safety of others.

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