J. Arturo Silva, M.D.; Dennis V. Derecho, M.P.H.; Gregory B. Leong, M.D.; and Michelle M. Ferrari, M.D.

Stalking Behavior in Delusional Jealousy*

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ABSTRACT: Stalking behavior has been associated with several mental disorders, both psychotic and non-psychotic. The most frequently associated condition appears to be an individual with primitive personality psychopathology regardless of co-occurring psychotic symptomatology. Among the psychotic symptoms, erotomanic, and jealousy delusions may be the most clinically and forensically relevant. However, delusional jealousy has not been well appreciated in the psychiatric literature as an important contributor to stalking behavior. In this article, we explore the psychiatric, psychosocial, and forensic aspects of stalking in the context of delusional jealousy. We use a case example to highlight important issues in this area.

KEYWORDS: forensic science, forensic psychiatry, mental disorder, psychosis, stalking, delusional jealousy, violence, aggression

Societal violence is a complex and pervasive problem in the United States. Violent behaviors can range from impulsive and unplanned actions, to those that have been meticulously and systematically coordinated. Clinicians may be able to intervene by treating mental disorders associated with violence, especially those associated with impulsivity. In comparison, planned violent behavior generally presents with greater barriers to successful clinical intervention. Such premeditated violence involves a large combination of interdependent feelings, thoughts, and behaviors that culminate in aggressive actions. Due to the complexity of the problem, attempts to understand the genesis and potential solutions for violence and other forms of aggression have led to conflicting views and vigorous debate (1-3). An increased risk for violent behaviors has been associated with the presence of mental disorders (4,5). Studies also indicate that the presence of substance abuse or dependence is a significant risk factor for aggression (4). Though not quite as great a risk factor as substance use, the presence of a psychotic disorder also increases the risk of violence (4). Psychotic

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symptoms, such as delusions and hallucinations, are thought to be important causes of aggression in some cases (6,7). Of particular importance is the presence of auditory hallucinations with related delusions, and auditory hallucinations of a familiar voice and threat/control-override symptoms (5,7–9). Threat/control-override symptoms involve subjective experiences in which the affected person believes that various measures of self-control are compromised, leading to an override of internal controls on behavior. This in turn increases the risk of violence. Link and Stueve identified three threat/control-override symptoms: 1) a belief that the mind is controlled by forces beyond its control, 2) experiencing thoughts in one's head that are not one's own, and 3) believing that people wished harm toward the affected person (5). In addition, the presence of anger further heightens the risk of violence in some mentally ill individuals (9,10).

Perhaps one of the most feared and dramatic acts of planned violence begins when the perpetrator stalks the potential victim. Such behavior appears to be common according to recent research (11). All United States jurisdictions have now enacted legislation to criminalize stalking (12). The typical statutory definition of stalking is "the willful, malicious and repeated following and harassing of another person that threatens his or her safety" (13, p. 258). Stalking behavior has been more broadly defined as a constellation of behaviors in which one individual inflicts on another repeated, unwanted intrusions, and communications. The intrusions can involve following, loitering nearby, maintaining surveillance, and making approaches. The communications can be through letters, the telephone, electronic mail, graffiti, or notes (14). Associated with stalking behavior is the progression from innuendo to direct threats toward the intended target as well as to others with some real or imagined connection to the target.

Stalking behavior has been associated with various psychopathologies of "love," including erotomania and related forms of "obsessional love" (15). Erotomanic delusional thinking in which the affected individual believes that another person is in love with him or her (16) is probably the most well-known psychopathology of "love" to both mental health professionals and the public as a form of delusional psychopathology associated with stalking behavior. However, the proportion of stalkers with pure erotomania as defined by the DSM-III-R or DSM-IV delusional disorder, erotomanic type is probably small—at least, for forensic samples (15). Even when erotomanic delusions in the context of psychotic disorders (other than delusional disorders) are considered, other types of delusions appear more likely to be associated with stalking (17). The proportion of stalkers with jealousy-spectrum disorder ranging from non-psychotic morbid jealousy to delusional jealousy may be greater and in fact, is thought to be a more common motivation for stalking behavior. The relation between jealousy, psychosis, and serious violence has been noted in the psy-

¹ Staff psychiatrist, Palo Alto Veterans Health Care System, Palo Alto, CA.

² Research health science specialist, National Center for Post-Traumatic Stress Disorder, Palo Alto Veterans Health Care System, Menlo Park Division, Palo Alto, CA.

³ Staff psychiatrist, Western State Hospital, Tacoma, WA.

⁴ Physician associate, Department of Psychiatry, Division of Child and Adolescent Psychiatry, Kaiser Permanente Medical Group, Santa Clara, CA.

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chiatric literature (18,19). However, this issue remains to be systematically studied. In this article, we present the case of a man who exhibited stalking behavior due in part to delusional jealousy. The psychiatric, psychosocial, and forensic aspects of stalking and jealousy are explored. Areas in need of further research and inquiry are briefly discussed.

Case History

Mr. L was referred to a psychiatrist by his psychotherapist to evaluate a possible need for psychopharmacologic treatment for hostility and paranoia. The psychotherapist was concerned that Mr. L was at significant risk of becoming violent towards his wife and others. All contact with the patient took place in an outpatient clinic.

Mr. L is a 48-year-old male who for the past 28 years has frequently thought that his wives and girlfriends had been unfaithful to him. He has been married to his current and second wife for 16 years. She is a 47-year-old housewife. Mr. L is convinced that his wife has had numerous affairs with other men whom he has not been able to identify. However, this thinking is not new to Mr. L. During his adult life, he has constantly worried about the whereabouts and putative infidelities of his wives and girlfriends. On many occasions, Mr. L has followed his current wife in an attempt to uncover the suspected infidelity. As possible proof, he indicated that his wife would frequent stores without informing him of the visits. Further proof by Mr. L consisted of his belief that their "limited" number of sexual contacts per month meant that she was having extramarital affairs to meet her libidinal needs. Mr. L had further developed a belief that his wife was a prostitute prior to their marriage.

Mr. L denied ever physically striking his wife, but acknowledged that he would frequently be resentful and verbally abusive towards her when she denied her extramarital activity. He reported having experienced homicidal ideation toward her because of beliefs involving jealousy. Mr. L reported obsessing about his concerns regarding his wife's unfaithfulness. He tended to confront his wives and girlfriends only after considerable rumination and after his tension and frustration had reached a threshold level. Mr. L's current wife manifested confusion about her husband's stalking behavior and she had expressed feeling hurt because of his distrust. She has consistently denied any extramarital sexual liaisons and no objective evidence of infidelity had ever been uncovered. Mr. L and his wife have an 11-year-old daughter who is healthy. There is no evidence of child abuse perpetrated by the patient.

Mr. L first married at age 23 to a woman of the same age. The marriage lasted for nine years. Since the beginning, his first marriage was characterized by marital discord associated with Mr. L's beliefs that his first wife was unfaithful to him by engaging in multiple liaisons with other men. He had followed her on many occasions in the hope of identifying her putative lovers. He had never been able to locate any lovers, resulting in his increased frustration. He reported having beaten his first wife with his fists on several occasions as he attempted to extract confessions of infidelity. When his first wife threatened to leave the relationship, this served to further fuel suspicion that she was unfaithful. He responded by increasing his surveillance of her in the hope of finding her with her putative lovers. Mr. L reported that as his first marriage neared dissolution, he believed that his wife showed little respect towards him by pursuing her own activities outside the home, independent of his desires to restrict those activities. The first marriage ended when his wife could no longer tolerate his jealousy and abusive behavior. After his first wife began living on her own, his jealousy increased in intensity and he began to follow her even more. He followed her to her place of employment, believing that she was involved in sexual relationships with her co-workers. In one situation, Mr. L angrily confronted his estranged wife at her home after she had returned from work. Only abusive, verbal statements made by Mr. L were involved in this incident. He began to angrily confront her on the streets and in her new home. On one occasion, he followed her to a house that he believed to be her boyfriend's home. He proceeded to break the windows of the house. Mr. L later found that the house was the home of his ex-wife's cousin. Mr. L was eventually arrested for a short time and a restraining order was issued to discourage him from approaching his ex-wife. The restraining order was violated by the patient on several occasions.

Mr. L's pursuit of his first wife abated after he developed a relationship with another woman that lasted for approximately one year. This was followed by several other short-lived relationships. All the relationships ended because of Mr. L's hostility, jealousy, and subsequent following of his significant others in the hopes of discovering and locating their putative lovers.

The patient also complained that he would hear voices when no one else was present. He believed that some of those voices were trying to protect him by warning him of potential aggressors. The result was that the voices would make him paranoid of others. He had been experiencing these voices since age 23. These voices sometimes criticized him and would accuse him of being a homosexual, though he had no such conscious proclivity. The voices would mock him, a fact that frequently caused Mr. L to become angry toward people that were close to him. On several occasions, he angrily tried to locate the source of the voices to confront them about their alleged abusive behavior, but was unable to do so. Mr. L would also experience beliefs indicating that his thinking was in some way known to others.

Mr. L has a long history of alcohol, amphetamine, and cocaine abuse. Alcohol would increase his hostility and jealousy while amphetamines and cocaine would increase his paranoia. He had abstained from these drugs for two years prior to the index evaluation. Mr. L was raised in an intact family in the southwestern United States where his mother was a housewife and his father was the primary household provider. Mr. L stated that his mother would defer important decisions regarding the family to her husband. The family hierarchy placed the husband as the head. His family psychiatric history is positive for paranoid schizophrenia in a sister and an aunt.

His physical examination was unremarkable. His complete blood count, urinalysis, and serum chemistries were within normal limits. Mr. L was administered the Buss-Durkee Hostility Inventory, a self-rated instrument that provides information on various facets of aggression (20-22). He scored 60 for the total hostility score. On the assault, indirect hostility, irritability, negativism, resentment, suspicion, verbal and guilt scales, he scored 9, 6, 10, 4, 8, 19, 7, and 6 respectively—most of which are considered high relative to a control sample (20). He completed the revised form of the Symptom Checklist-90 (SCL-90-R), a test designed to obtain detailed information on a large number of self-rated psychiatric symptoms, including their intensity (23). In the obsessive-compulsive, depression, anxiety, hostility, phobic anxiety, and paranoid ideation scales of the SCL-90-R, he had scores of 35, 41, 30, 16, 71, and 19, all at the 95th percentiles compared to an outpatient norm. The interpersonal sensitivity, somatization, and psychoticism scales of the SCL-90-R resulted in scores of 21, 17, and 17 at the 84th, 84th, and 85th percentiles, respectively, as compared to an

outpatient norm. The significance of the test results is covered in the discussion section.

Given the available information, Mr. L met DSM-IV criteria for chronic paranoid schizophrenia and alcohol abuse in remission (24). He was treated with olanzapine 10 mg per day with substantial diminution of his psychotic and aggressive symptoms. Nevertheless, he continued to harbor beliefs that his current wife as well as previous significant others had been unfaithful to him.

Discussion

Diagnostic Issues

The case of Mr. L can be conceptualized as a case of delusional jealousy. His jealous delusions, auditory hallucinations, and paranoia date back to early adulthood. In view of his history of alcohol, cocaine, and amphetamine abuse at approximately the same time that he began to experience his psychotic symptoms, there may be a substance-related contribution to his psychosis. On the other hand, there is clear genetic loading for schizophrenia among his first-degree relatives. Given the long-standing nature of the delusional jealousy, coupled with auditory hallucinations and a recent history of substance abstinence, the most likely diagnosis is chronic paranoid schizophrenia (24).

Given that delusional thinking, in general, can have some neurobiological basis in some psychotic disorders (25) and that delusional jealousy in particular can also be associated with general medical conditions (26-28), it is possible that Mr. L's jealousy may have some neurobiological basis. However, we emphasize that we have no clear evidence to substantiate a role for neurobiological factors in his case. Mr. L also met DSM-IV diagnostic criteria for alcohol, cocaine, and amphetamine abuse (24). Both general medical conditions and substance abuse can affect the brain, resulting in delusional jealousy (26-30). Moreover, chronic alcohol intake, in particular, has been associated with delusional jealousy, although a causal linkage is unclear (31–35). In addition, acute alcohol use in individuals who suffer from jealousy, delusional or otherwise, may heighten the intensity of the jealousy (35). This finding is consistent with the idea that alcohol may be an acute, causative biological factor for delusional jealousy. Obsessive-type thinking was clearly present in Mr. L. Obsessive-type thinking is a well-known feature exhibited by individuals who engage in stalking behavior and is considered by many clinicians and investigators to be of primary importance in understanding the stalking behavior itself (15,36). In the case of Mr. L, obsessivetype thinking appeared to be secondary to delusional preoccupation. Mr. L's high score on the obsessive-compulsive scale in the SCL-90-R is consistent with his serious psychopathology involving obsessiveness.

Concerning his general level of hostility, he scored well over two standard deviations above the norm in total hostility on the Buss-Durkee Inventory. This was consistent with the hostility scale of the SCL-90 that indicated a level of hostility above the 90th percentile in comparison to other outpatients.

The patient produced a maximal score on the suspicion scale of the Buss-Durkee Inventory consistent with his history of delusional thinking and other psychotic phenomena that were closely linked to his delusional jealousy. The SCL-90-R scores for psychosis and paranoid ideation also showed some elevation, reinforcing the view that the patient suffered from a psychotic process. On the Buss-Durkee Inventory, he scored a maximum score in resentment and a fairly high score on irritability, consistent with his history of poor impulse control.

Mr. L's score on guilt in the Buss-Durkee Inventory was not high. This suggests that guilt mechanisms that would hold in check his hostility toward others was not strongly operative. His low verbal hostility score on the Buss-Durkee Inventory is consistent with Mr. L's history of keeping his anger to himself and relatively hidden from others. He would mask hostility by refraining from talking to others until it reached an intolerable degree, at which point he would then express it via violent behavior.

Stalking Behavior

Stalking is a serious and rather pervasive behavior in the United States that affects 1.4 million victims per year. A recent survey conducted by the Center for Policy Research involving 8000 adult women and 8000 adult men suggests that 8 and 2% of women and men, respectively, had been stalked at some point in their life. It was estimated that about 1,006,970 women and 370,990 men per year were stalked in the United States (11).

Mr. L presented a long history of stalking behaviors in which he followed his wives and girlfriends because he believed that they were involved in sexual relationships with other men. He acknowledged that he was motivated to monitor them closely due to his intense jealousy. In addition, he would usually confront his partners and their putative lovers. However, these confrontations would usually take place only after spending inordinate amounts of time obsessing about his jealousy concerns, and after his anger and frustration had reached very high levels. Then he would become verbally and/or physically aggressive. This obviously resulted in significant distress for these women as well as for those associated with them. This behavior led to his arrest and the issuance of restraining orders against him. Mr. L's stalking behavior was characterized by: 1) a pattern of unwanted threats and monitoring involving physically approaching his many targets, and 2) verbal harassment of his partners. His physical approaches resulted in acts of aggression that at times resulted in physical injury to the primary target or putative lover. Mr. L's verbal and physical behaviors are typical of obsessional following or stalking behavior as recently reported and catalogued (36,37).

Delusional Jealousy and Hostile Behavior

The phenomenon of severe (delusional or non-delusional) jealousy and its association with stalking behavior is arguably most frequently exemplified by the disgruntled man who, after the dissolution of an amorous relationship with a woman, persists in pursuing her against her wishes. This type of behavior is known as domestic stalking and is thought to be a relatively common form of stalking (38). Domestic stalking often leads to legal intervention in the form of restraining orders. However, the effectiveness of these orders is variable and there is a great need to understand the factors associated with their effectiveness (11,39). The case of Mr. L is illustrative of people who can become violent stalkers due to their delusional jealousy. Arguably, cases like those of O.J. Simpson and his former wife have helped to educate our society about the nature of morbid jealousy and its potential serious ramifications including domestic spousal violence (40,41). This information has been disseminated in great part by the lay press (40,41) and television. Delusional jealousy can be conceptualized as perhaps the most extreme form of morbid jealousy as a result of crossing the reality testing threshold. Delusional jealousy is usually accompanied by a significant component of hostility and has been associated with homicide or other physical injuries (27,32,35,42).

Delusional Jealousy as a Cause of Stalking Behavior

Although jealousy, in general, appears to be a risk factor for stalking behavior, an association linking delusional jealousy and stalking may be more difficult to document. Delusional jealousy, in the context of stalking behavior, may not be a sufficiently detailed paradigm necessary to delineate precisely the link between stalking and psychotic thinking. Nevertheless, in reviewing Todd and Dewhurst's study of nine cases of delusional jealousy, four displayed behaviors that would qualify as encompassing some aspects of stalking (43). In Mowat's study of 46 individuals who committed homicide in association with delusional jealousy, 20 had spied on their spouse sometime prior to the attack (42). However, the precise nature of the spying was not the focus of the Mowat study and therefore, we are unable to ascertain from this landmark work which of these cases would have qualified as stalking as recently defined. A more recent study showed that spying is closely linked to the stalking process. This study revealed that a majority of the victims had been followed or spied upon by their assailant (11). In Mr. L's case, he began to follow his spouses or girlfriends during their relationship. The increase in stalking behavior before the actual dissolution of the relationship appeared to be due to Mr. L's heightened jealousy as he began to perceive losing control of his partner, first by their simply having a life outside the home and subsequently by their initial signals to possibly leave the troubled relationship. In this way, the delusional jealousy may have first caused increasing difficulty in the relationship and subsequently fueled his partner's desire to terminate the relationship. The partner's desire to leave him further inflamed the delusional jealousy. The patient also presented evidence of narcissistic injury as he rationalized that his wife was being disrespectful of his authority and desires. Memories of Mr. L's own childhood where he witnessed his mother's deference to his father may have contributed to this type of thinking. The component of jealousy appears to be closely linked to Mr. L's psychotic condition since his jealousy was of delusional proportions.

His narcissistic injury therefore appears to involve a significant psychosocial component encompassing family gender roles originating in the specific sociocultural environment in which he was raised. However, his anger escalated even after his partners left the relationship. This eventually led to violent behaviors and/or destruction of property. Vandalism has been reported in 30% of stalking cases (11). Mr. L also followed his wives to their workplaces and in one instance, this was followed by an angry confrontation with one of his spouses at home. Although we have no information regarding the impact of Mr. L's stalking on his partner's performance at work, this may be an important issue to consider. Available information suggests that women who are victims of jealous partners and/or stalking are at risk of arriving late to work, job inefficiency, or loss of employment because of associated psychological symptoms and/or physical injuries. The impact of stalking, jealousy, and other related abusive behaviors may have a substantial impact on the economy (11,44,45).

Perhaps of greatest relevance to the study of delusional thinking and stalking was conducted by Kienlen and her colleagues. Their sample contained both psychotic and non-psychotic stalkers. Among seven of the eight psychotic stalkers who experienced delusions, none of the delusions were of the jealous type. This contrasts to 24% of the non-psychotic stalkers who presented with jealousy (17). This result suggests that jealousy is more likely to be a significant factor in non-psychotic stalkers. More

importantly, this study found that psychotic stalkers as a group present with a multiplicity of delusions which disputes the popular notion that such stalkers would only suffer from erotomania (17). Meloy's recent review (36) in which he was able to identify only five studies (13,15,19,46,47) that did not focus exclusively on erotomania suggests that the study of psychotic stalkers who suffer from erotomanic delusions may represent a significant bias by failing to identify other delusions that may lead to stalking. This may partially result in the failure to identify non-erotomanic delusions among stalkers that are closely linked to stalking behavior. Alternatively, studying stalkers who objectively only suffer from erotomanic delusions may also result in a selection bias. These biases may explain the fact that stalking associated with delusional jealousy is rarely reported. In 1996, Silva and his colleagues reported the case of a 39-year-old male charged with three counts of rape and residential burglary. He forced his former girlfriend into sexual intercourse after illegally entering her home. Prior to these activities, he had been following and approaching her against her wishes. He had verbally threatened her on several occasions. This man delusionally believed that he continued to have a relationship with his girlfriend. He harbored intense jealousy because he believed that she had been unfaithful in the context of their non-existent amorous relationship. He had a psychosis that involved both jealous and erotomanic delusions, both of which were thought to be important in the genesis of his stalking behavior (48).

Future Directions

Several important questions are raised by delusional jealousy and stalking behavior that are in substantial need of clarification. Delusional jealousy itself appears to predispose affected individuals to violence (27,35,42). However, delusional jealousy rarely occurs in a monosymptomatic form in delusionally jealous, violent individuals. The extent that other psychiatric symptoms, both psychotic and non-psychotic, influence delusionally jealous individuals to become more violent needs further exploration. As previously mentioned, delusional jealousy can be part of the symptomatology of a number of psychotic disorders. Whether it predisposes people to become violent as a function of a specific psychotic disorder is unknown. Substance abuse is associated with delusional jealousy. However, the exact connection remains undefined and studies aimed at delineating phenomenological as well as biological correlates of substance abuse in dangerous delusional jealousy are necessary to attempt clarification of these issues. Moreover, environmental factors that may have a potential role in delusional jealousy in association with stalking behaviors and violence also necessitate in-depth study.

Although violence in delusional jealousy appears to be closely related to the home setting, this question also needs serious study. Stalking behavior may be an important factor in this regard because the affected psychotic individual, by virtue of stalking behavior (which is an activity that occurs outside the home) may place himself or herself in geographic situations where "trigger points" for violence exists. For example, putative places of consortium between the target of the delusion and those surrounding the victim may increase the likelihood that the delusional individual would act against the target or putative lovers that become specified in the environs of the greater social community. A study of ecological variables, whether involving geographic settings or social objects, may lead to better approaches for identifying at-risk situations for violence. Adopting a life-span perspective (49) is also likely to be useful to delineate the chain of life events within an individual that leads to the development of stalking behavior.

The fundamental, biological nature of stalking in the context of delusional jealousy also merits further inquiry. Although significant progress in the study of stalking has been made in recent years (12,36), the correlates of "following" behavior across different psychiatric diagnostic groups have yet to be studied in great depth. Furthermore, any important correlates of non-psychopathologic behavior that may have a role in explaining the biology of stalking behavior also needs further inquiry. These may include the study of both neurobiologic and evolutionary factors as they relate to hostility, delusional thinking, and stalking behavior (50,51). Neurobiologic approaches can be useful in clarifying psychobiologic factors within the individual that predispose to obsessiveness, impulsivity, and violence (22,52,53). Evolutionary psychology may shed light on mechanisms, both normal and abnormal, that predispose a species to certain types of violence across various types of psychological, social, cultural, and ecologic contexts (50,51).

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Additional information and reprint requests:

J. Arturo Silva, M.D.

P.O. Box 20928

San Jose, CA 95160