Serial sexual murderers have been described as committing homicides in a methodical manner, taking substantial time between offenses to elude the authorities. The results of our study of the temporal patterns (i.e., the length of time between homicides) of a nonrandom national sample of 44 serial sexual murderers and their 201 victims indicate that this representation may not always be accurate. Although 25 offenders (56.8%) killed with longer than a 14-day period between homicides, a sizeable subgroup was identified: 19 offenders (43.2%) who committed homicides in rapid-sequence fashion, with fewer than 14 days between all or some of the murders. Six offenders (13.6%) killed all their victims in one rapid-sequence, spree-like episode, with homicides just days apart or sometimes two murders in the same day. Thirteen offenders (29.5%) killed in one or two rapid-sequence clusters (i.e., more than one murder within a 14-day period, as well as additional homicides with greater than 14 days between each). The purpose of our study was to describe this subgroup of rapid-sequence offenders who have not been identified until now. These findings argue for accelerated forensic assessments of dangerousness and public safety when a sexual murder is detected. Psychiatric disorders with rapidly occurring symptom patterns, or even atypical mania or mood dysregulation, may serve as exemplars for understanding this extraordinary group of offenders.

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Since the early case studies by Krafft-Ebing,¹ sexual murder and sexual murderers have been described in considerable detail, including offenders’ backgrounds, victims, and crime-scene behaviors. Notwithstanding the sustained, and even growing, interest in sexual homicide,² systematic empirical research has been relatively limited. In fact, Dietz³ has pointed out that the dearth of publications on sexual homicide is due largely to its extreme rarity, which does not permit the application of ordinary behavioral science research methods. Sexual homicide has been estimated to constitute less than one percent of all murders,⁴ and serial sexual homicide, involving multiple murders by the same offender, is even less common.⁵ In addition to the relative paucity of cases, several problems encountered in researching sexual homicide have been delineated,⁶ including the absence of national crime statistics, incomplete and inaccurate background information, lack of interdisciplinary cooperation, and lack of definitional clarity.

The early researchers defined sexual homicide either in vague nonmeasurable terms such as “the connection between lust and desire to kill” (Ref. 1, p 62) or merely described various actions of the offender that in some way “serve as sexual stimulation” (Ref. 7, p 40). Even many contemporary studies use definitions that are unclear and inconsistent.⁸ Ressler et al.⁹ provided a reasonably detailed operational definition of sexual homicide by enumerating specific offender behaviors. They operationalized the features not only of a sexual homicide but also of a serial sexual homicide as “three or more separate [sexual murders] with an emotional cooling-off period between homicides […] [. . .] the cool-off period can be days, weeks, or months and is the main element that separates the serial killer from other multiple killers” (Ref. 9, p 139).
The location and dates of the homicides, as well as the number of victims of serial murderers, are relatively objective variables; however, whether an offender cooled off emotionally is not objective and is extremely difficult to measure. That the offender experienced emotional cooling off was inferred, based on the temporal separation between murders: the longer the period between homicides, the greater the likelihood that the offender had cooled off. The issue of a cooling-off period was discussed at a 2005 multidisciplinary serial homicide conference sponsored by the National Center for the Analysis of Violent Crime of the Federal Bureau of Investigation (FBI), and the delegates decided to eliminate the necessity of including a cooling-off period in the definition of serial homicide.10 Similarly, another term, spree killer, meaning multiple murders in two or more locations with no emotional cooling-off period, was found “not [to] provide any real benefit for use by law enforcement” (Ref. 11, p 12). It was recommended that this type of rapid-sequence homicide pattern be considered simply a form of serial homicide with the dates of the murders being close together. Although the concept of an unmeasurable emotional cooling off of the offender may not provide any real benefit to law enforcement, the periods between multiple murders committed by the same offender are very important. For instance, if one or two murders are committed, the likelihood that another murder will occur very soon, or at some distant time, is an important concern with respect to public safety and the deployment of resources.

The temporal patterns of serial sexual murders have never been a focus of attention or scientific study; however, a close examination of many well-known cases of serial sexual homicide that are well known enough to have gained a sobriquet reveals that many of the murders were, in fact, committed in rapid sequence, within a two-week period. For example, a review of the iconic 1888 case of “Jack the Ripper”12 found that many of the five prostitute victims attributed to him were killed in fairly rapid succession (August 31, September 8, two on September 30, and one on November 9). The same close temporal pattern of homicides has been found in many other well-known serial sexual murder cases from different periods, different countries, and different cultures. In the 1920s, Germany’s Fritz Haarmann, the “Butcher of Hannover,” killed at least 27 males in a sexual frenzy, many in rapid temporal succession (2 victims in May 1923, 3 in October 1923, 3 in April 1924, and 3 in May 1924).13 Albert DeSalvo, the “Boston Strangler,”14 killed 13 women in an 18-month period, 6 in rapid succession in 1962 (1 on June 14 and 28, 2 on June 30, 1 on August 21, and 1 on August 30). The same rapid-sequence pattern is noted in the murders committed by Richard Ramirez,15 the “Night Stalker” (2 victims on May 14, 1985; 1 on May 29; 2 on May 30; and victims on July 2, 5, 7, 20 and August 6, 8, 18, and 24, 1985, with multiple victims on many dates). Danny Rolling, the “Gainesville Ripper,”16 killed two women on August 24, 1990, one on August 25, and two on August 27. More recently, Anthony Sowell, the “Cleveland Strangler,”17 killed two women in April 2009, two in June, and two the next month.

There have been many case descriptions of spree murderers,18,19 but the crimes were mostly of a nonsexual nature,11,20,21 with the observation that the short interval between the homicides, indicating the lack of a cooling-off period, is the main defining characteristic. Spree murders are different from mass murders, which are defined as the killing of multiple victims at the same time and same location.11 There have been several types of mass murders delineated (e.g., family annihilators, pseudocommandos, and set-and-run killers), with the common characteristic being one person operating in one location at one time.3,11 Both spree and mass homicides are distinct from serial homicide which involves the killing of two or more victims by the same offender in separate events.10,22

Pollock reported a case of a young man who killed two individuals (with possible sexual motivation) and then two more in fairly rapid succession, considering the case to be a “spree serial murder” (Ref. 23, p 258). Two attempts to create statistical models focusing on the periods between episodes of nonlethal violence24 and homicide25 were developed in an effort to identify predictable patterns of behavior that could be useful to investigators. DeLisi and colleagues conducted the only empirical study of the criminal backgrounds of offenders who engaged in what they called “homicidal crime sprees” (Ref. 26, p 37). These authors studied 66 murderers who killed between one and nine victims (within an interval of 1–14 days) during their crime series and found that these types of offenders, compared with murderers who did not kill in a spree, were more violent and more criminally versatile, with criminal histories of
robbery and child molestation. This study did not specify whether the offenders had a sexual motivation for the murders; however, many of these murderers had raped a victim during their homicidal crime spree.

Because there has been a disparity between the assumption that serial sexual murderers take substantial time between homicides and the observation that many killed in rapid sequence, the temporal patterns in this group of offenders requires empirical study. Accordingly, the purpose of our study was to test the supposition that considerable time elapsed between each homicide in an offender’s series of sexual murders and to identify and describe a previously unrecognized subgroup of rapid-sequence offenders.

Methods

To study the temporal patterns in serial sexual homicide empirically, a nonrandom national sample of 44 serial sexual homicide offenders who had 201 victims was examined. Cases for this research were obtained from the FBI’s Behavioral Science Unit and were closed, fully adjudicated state and local cases that were contributed by law enforcement agencies from around the country for the purpose of research. Although various units of the FBI have access to additional cases, these were the only ones available at the Behavioral Science Unit where our study was conducted. The 44 cases of serial sexual homicide were part of a larger database of 946 homicides. We had access to the entire case file for these offenders which included police reports; medical examiner, autopsy, and hospital reports; statements by witnesses and offenders; crime scene photos; forensic evidence; and forensic reports. All identifiers, including names of victims, offenders, officers, departments, and correctional agencies have been removed. Only aggregate data are reported.

There is no reason to believe that this sample is materially different from any other nonrandom sample, although this possibility can never be eliminated. There were no specific criteria for inclusion or exclusion of a case, except for availability and that the case met our operational definition of serial sexual homicide. Our sample of serial sexual murderers consisted of U.S. offenders who were apprehended and convicted for the homicides that they had committed, primarily during the 1990s. Some offenders were incarcerated over the course of their criminal careers for a variety of charges, which limited their opportunity to commit additional homicides. None of the offenders was detained for any reason during the time frame of their series of murders that were committed within the 14-day period. The subjects were all residing in the community at the time of their arrests. Notwithstanding the sometimes unreliability of mean data derived from relatively small samples, as they can be influenced by extreme values, our results are reported to aid in the conceptual variation that our findings identified. Because this research involved only the collection of archival data from existing documents, it was exempted from further review after an initial assessment by the Institutional Review Boards of John Jay College of Criminal Justice and the FBI.

Operational Definitions

Sexual Homicide

Sexual homicide was operationally defined using the criteria developed by Ressler et al. and Douglas et al.: evidence of the victim’s attire or lack of attire, exposure of the victim’s sexual parts, sexual positioning of the victim’s body, insertion of an object, sexual penetration, or evidence of substitute sexual activity or interest or of a sadistic fantasy. Serial sexual homicide was operationalized using the criterion of Morton and Hilts that there must be at least two sexual homicides at different times and different locations. The initial inter-rater reliability for the classification of serial sexual homicide using Cohen’s k was .997. Cases were classified by review of the entire file and, for inclusion in our sample, independent agreement by the authors was reached. All offenders in our sample committed at least 2 (and as many as 16) sexually motivated murders.

Rapid-Sequence Temporal Pattern

The periods between homicides denoting a rapid sequence, or what had been called spree killing, have been vague and not substantially more specific than referring to an absence of a cooling-off period. For example, Cresswell and Hollin defined the temporal pattern of a spree killing as “several victims... over a period of hours or days” (Ref. 27, p 3). Fox and Levin used “a short period of time” (Ref. 18, p 408) as the time sequence between murders to qualify them as a spree killing, while Hickey used “a relatively short time frame ranging from hours to weeks” (Ref. 28, p 171–2). Beasley cited a case of what he considered to be a spree-like murderer who killed six persons in
six states during an eight-month period, which is, on average, about one murder every 40 days.

DeLisi et al. operationalized the time span for a spree killing more precisely as “greater than 1 day and less than 14 days inclusive” (Ref. 26, p. 40). The researchers used the minimum interval of greater than one day to differentiate a spree murder from a mass murder, in which an offender may have killed more than one person at the same time and location. Although any period could be regarded as arbitrary, we adopted the 14-day standard of DeLisi et al. as an upper limit in operationalizing our definition of rapid sequence. However, we also included cases of two or more murders that occurred on the same day, but only if they were not at the same time and the same location. A rapid-sequence cluster, as employed in this article, is defined as more than one murder within a 14-day period (as well as the possibility for additional homicides committed with greater than 14 days between each). For example, an offender could commit 3 murders within 14 days and 3 additional murders with longer than 14-days between each one.

Results

Examination of the intervals between murders of our sample of 44 offenders, all of whom were male, resulted in the identification of 19 offenders (43.2% of the sample) who engaged in rapid-sequence serial sexual homicides (i.e., two or more murders within a 14-day period). Six offenders (13.6%) committed their entire series of sexual homicides in rapid sequence. Thirteen (29.5%) committed several rapid-sequence sexual murders in one or two clusters, (i.e., more than one murder in a 14-day period, as well as additional sexual homicides extending over a longer time). Twenty-five offenders (56.8%) killed with greater than a 14-day period between all of their homicides. Table 1 reports the differences in temporal patterns in our entire sample of serial sexual murderers.

Rapid-Sequence Homicides Only

The six offenders who committed all their sexual murders in rapid sequence killed at a mean rate of 1 homicide every 3.58 days (range, 1.1–9.3, SD 3.04). All offenders were male with a mean age of 34.17 years (range, 22–52 years, SD 10.34) at time of arrest. Two offenders were white, three were African American, and one was Asian/Indian. Four of the offenders killed females only; one offender killed three females and one male, and one offender killed all males. Two offenders killed two people on the same day at different locations. Criminal histories, educational backgrounds, employment status, documented psychopathology/diagnosis (when available), and method of killing varied. One offender shot all victims in the head, three offenders used asphyxiation (primarily with ligatures), one offender used ligature strangulation and blunt-force trauma with stabbing, and one offender killed all victims with multiple stab wounds. Table 2 details the specifics of this group of offenders.

In addition to the homicides officially attributed to these six offenders who committed all their sexual homicides in one rapid sequence, according to the case files, two offenders were strong suspects in several other unsolved homicides. In addition, both of these individuals committed several rapes and were also suspects in several unsolved rapes.

Rapid-Sequence Homicides with Clusters

Of the 13 offenders who committed rapid-sequence homicides in clusters, one offender killed five women in two rapid-sequence clusters, another offender killed four women in two rapid-sequence clusters, and both of these offenders killed other victims with longer than 14 days between homicides. The remaining 11 offenders killed victims in one
rapid-sequence cluster, along with additional murders with more than a two-week interval between each. One of these offenders killed two people on the same day at different times and locations. The mean number of days within each spree cluster was 6.48 days (range, 1.0–14.0 days, SD 4.16). All of these offenders committed additional sexual murders outside the cluster, some within the same year, some within a period spanning up to 12 years. The mean number of days between homicides outside of the cluster was 318.5 days (range, 31–1,148 days, SD 359.02).

The mean age at time of arrest of the 13 male offenders who committed one or two clusters of rapid-sequence murders was 33.62 years (range, 20–54 years, SD 9.19). Seven offenders were white and six were African American. Twelve offenders killed only females, ranging from 4 to 9 victims, and one offender killed 16 male victims. Criminal histories, education levels, and documented psychopathology/diagnosis (when available) varied. The method of killing was primarily strangulation/asphyxiation and stabbing. Table 3 provides specifics on this group of offenders.

Among the group of 13 offenders who committed rapid-sequence homicides in clusters, another individual committed an attempted murder and an attempted abduction within his homicide cluster. One other cluster offender committed two attempted murders in one week and two rapes on successive days, and another offender was a suspect in 40 unsolved homicides committed in the same manner as those murders for which he was found guilty or pleaded guilty.

### Non–Rapid-Sequence Offenders

There were 25 offenders (56.8% of the sample) who did not commit rapid-sequence serial sexual homicides, and killed with longer than 14 days between each of the murders. The mean interval between homicides with this group, which was not the focus of our study, was 1,054 days (range, 22–10,270 days, SD 2,117; median, 353.75) In addition to the homicides officially attributed to them, this group of offenders committed additional acts of serious interpersonal violence including 19 attempted murders, 14 assaults, and 25 rapes. As a group, none of these additional violent offenses were committed in a spree-like manner, except for one offender who committed two attempted rapes within 4 days.

### Discussion

The characterization of serial sexual murderers as experiencing an emotional cooling-off period between homicides, which would supposedly allow them to plan their next offense in a careful and methodical fashion, was based largely on the definition and description of a serial killer put forth by the early

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**Table 2** Rapid-Sequence Homicides-Only Cases

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean days between murders</td>
<td>4.6</td>
<td>2.0</td>
<td>1.1</td>
<td>9.3</td>
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<td>2.5</td>
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<tr>
<td>Age at arrest</td>
<td>27</td>
<td>22</td>
<td>33</td>
<td>33</td>
<td>52</td>
<td>38</td>
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<td>Victims</td>
<td>Female strangers</td>
<td>Female prostitutes</td>
<td>Female acquaintances</td>
<td>Female, 1 male, all prostitutes</td>
<td>Female acquaintances</td>
<td>Males</td>
</tr>
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<td>Method of killing</td>
<td>All shot in head</td>
<td>Asphyxiation, plastic bag/ligature</td>
<td>Asphyxiation, ligature</td>
<td>Ligature, blunt force trauma, stabbing</td>
<td>Strangulation</td>
<td>Multiple stab wounds</td>
</tr>
<tr>
<td>Criminal history</td>
<td>B&amp;E, theft, nonviolent crimes</td>
<td>None</td>
<td>Homicide, rape, B&amp;E, assault</td>
<td>30 Felony arrests, robbery, rape, assault</td>
<td>Rape, assault, B&amp;E</td>
<td>Rape, robbery</td>
</tr>
<tr>
<td>Education</td>
<td>10th grade</td>
<td>Some college</td>
<td>GED</td>
<td>GED</td>
<td>Some HS</td>
<td>HS</td>
</tr>
<tr>
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<td>Malingering</td>
<td>Anxiety and depression</td>
<td>Sociopathic personality, schizoid traits</td>
<td>Unemployed</td>
<td>Unemployed, homeless</td>
</tr>
<tr>
<td>Employment</td>
<td>Fast-food worker</td>
<td>Airport ticket clerk</td>
<td>Expelled from career military service</td>
<td>Unemployed</td>
<td>Unemployed, homeless</td>
<td>Unemployed, just released from prison</td>
</tr>
</tbody>
</table>

B&E, breaking and entering; GED, general education diploma (high school equivalent); HS, high school.
Table 3  Rapid-Sequence Homicide Clusters Cases

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
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</thead>
<tbody>
<tr>
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<td>1</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mean days between cluster murders</td>
<td>5.0</td>
<td>3.0</td>
<td>8.0</td>
<td>7.25</td>
<td>11.5</td>
<td>14.0</td>
<td>2.0</td>
<td>2.0</td>
<td>5.0</td>
<td>1.0</td>
<td>2.5</td>
<td>10.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Number of victims in cluster</td>
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<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Number of noncluster murders</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mean days between noncluster murders</td>
<td>6.0</td>
<td>5.0</td>
<td>8.0</td>
<td>7.25</td>
<td>11.5</td>
<td>14.0</td>
<td>2.0</td>
<td>2.0</td>
<td>5.0</td>
<td>1.0</td>
<td>2.5</td>
<td>10.0</td>
<td>7.0</td>
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<tr>
<td>Number of victims in noncluster murders</td>
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<td>2</td>
<td>2</td>
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<td>2</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td></td>
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<tr>
<td>Number of victims in noncluster murders</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>14</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Total victims</td>
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<td>7</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td></td>
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<tr>
<td>Method of killing</td>
<td>Asphyxiation</td>
<td>Asphyxiation</td>
<td>Stabbing, blunt-force trauma</td>
<td>Stabbing, toxic fluid, strangulation</td>
<td>Strangulation, strangulation, throat cut</td>
<td>Strangulation, strangulation, throat cut</td>
<td>Strangulation</td>
<td>Strangulation</td>
<td>Strangulation</td>
<td>Strangulation</td>
<td>Stabbing</td>
<td>Strangulation</td>
<td>Stabbing</td>
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<td>Criminal history</td>
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<td>None</td>
<td>Attempted murder, B&amp;E, sex crimes</td>
<td>Rape, B&amp;E, assault, attempted murder</td>
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<td>None</td>
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<td>11th Grade</td>
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<td>Artist</td>
<td>Handyman</td>
<td>Bartender, office worker</td>
<td>House painter</td>
<td>Bus driver</td>
<td>Nurse</td>
<td>Welder</td>
<td></td>
</tr>
</tbody>
</table>

B&E, breaking and entering,
crime is believed to be systematic and deliberate, previously been researched, but from a much different perspective. Although caution is always necessary in drawing conclusions based on a relatively small, non-random sample of convenience, the results of our study suggest that not all serial sexual murderers kill with substantial intervals between homicides. In fact, our results indicate large variability in the temporal patterns of serial sexual murder which may be more emblematic of this type of homicide than previously thought. Although the majority (56.8%) of serial sexual murderers were likely to kill with longer than 14 days between murders, a sizeable number of these offenders (43.2%) either killed in rapid-sequence clusters or killed all their victims in a rapid-sequence, spree-like manner. Further, it is possible that the number of actual rapid-sequence murderers is even greater than our results demonstrate. For example, almost all offenders, even the 25 non-rapid-sequence offenders, were strongly suspected of committing additional acts of attempted murder, assault, and rape, as well as other acts of significant interpersonal violence.

Because this is basically the first empirical investigation of the temporal patterns (i.e., length of time between homicides) in serial sexual homicide, with specific focus on rapid-sequence offenders, it is not unexpected that DeLisi et al. concluded, “Surprisingly little is known about offenders who commit murder during a crime spree” (Ref. 26, p 38). Time patterns of some nonhomicidal serial offenders have previously been researched, but from a much different perspective. For instance, Warren et al. studied the time serial rapists spent traveling to crime scenes, as a function of distance, and found it to be associated with several demographic and offense characteristics. Similarly, Markson et al. examined the temporal proximity of serial burglaries as a basis for linking crimes to the same offender.

One of the best methods of classifying sexual murderers is based on the type of crime scene the offender leaves, which is considered to be an indication of the extent of the offender’s planning. Those offenders who leave organized crime scenes, with little evidence, typically were thought to plan their homicides and have fairly intact personality structures with minimal overt disturbance. Their approach to crime is believed to be systematic and deliberate, pre-
suspect is considered to be a potential serial sexual murderer, perhaps because of engaging in behavior such as posing the victim in a degrading manner, our results indicate that more than one-third of such individuals will kill in rapid sequence, and resources then should be more quickly allocated. For instance, a swift interdisciplinary risk assessment of the unidentified offender may be appropriately conducted jointly, including law-enforcement, psychiatric, and psychological perspectives.

Although our findings suggest that there is a subgroup of serial sexual murderers who kill in rapid sequence, it is not clear why they behave in this fashion, etiological theories and models of sexual homicide notwithstanding. Future research should address the possible underlying differences, along a wide range of dimensions, between those who kill in rapid sequence and those who kill with longer intervals between murders. Clinical examination of offenders would be very helpful in uncovering factors beyond basic demographic, historical, and behavioral patterns reported in investigative case files. Reference to other mental disorders with similar rapidly occurring symptom patterns might be used as an exemplar to help us understand these offenders. For instance, there are differences between alcoholics who go on drinking binges and those who do not; individuals who engage in pathological binge eating and those who eat abnormally but not in this fashion; as well as binge gamblers and nonbinge gamblers. There is certainly no attempt to equate sexual murder with addictive behaviors, eating disorders, or any other mental disorder, but the rapid-sequence symptom expression, although manifested very differently by each group, may indicate a common dimension worthy of consideration. Perhaps the time between homicides is yet another way to differentiate or subcategorize serial sexual murderers, in the same way other psychiatric disorders with rapid symptom expression have been conceptualized. It is also possible that rapid-sequence serial sexual murderers have some type of underlying atypical manic or mood-dysregulation component that becomes behaviorally apparent only in this extraordinary manner. A careful examination of abnormal mood and other markers for atypical mania or hypomania, at least, raises the possibility of some type of psychiatric intervention for this group of extremely dangerous offenders.

In conclusion, our results do not support the supposition that all serial sexual murderers take substantial time between homicides. Instead, the findings indicate significant variability in the temporal patterns among this group of offenders. Although most serial sexual murderers killed with a considerable period between homicides, over one-third killed in a rapid-sequence manner, either killing all of their victims in one rapid-sequence spree, or in one or two rapid-sequence clusters.

There are, however, several limitations of our study that temper the generalizability of the results. Specifically, a relatively small nonrandom sample of convenience was used that may not be representative of the entire population of serial sexual murders. Also, there were many unsuccessful attempts to murder, rape, and commit other acts of extreme interpersonal violence that could make our results an underestimation of the prevalence of rapid-sequence behavior in this group of offenders. Over the course of years, some offenders may have been limited in their opportunity to commit crimes because they may have been incarcerated at times for various offenses. Finally, a more complete delineation of the backgrounds, dynamics, and co-occurring psychiatric disorders of these rapid-sequence offenders could be obtained by direct clinical examination, in addition to review of their case files, which we expect would further our understanding of this important aspect of serial sexual homicide.

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