

# An Examination of Gender and Racial Differences Among Missouri Insanity Acquittees

Donald M. Linhorst, PhD, MSW, Laura Hunsucker, PsyD,  
and Lisa D. Parker, PhD

This study examines gender and racial differences among Missouri insanity acquittees, which included 42 African American females, 279 African American males, 63 Caucasian females, and 458 Caucasian males. Significant differences across the four groups were not found in age, current marital status, a diagnosis of borderline intellectual functioning/mental retardation, committing crimes of assault and burglary, and whether insanity acquittees ever received conditional releases to reside in the community. Some variations across the four gender/race categories were related to race (diagnoses of schizophrenia, mood disorders, and other Axis I diagnoses), but variations were more frequently related to gender (whether ever married; diagnoses of substance abuse, sexual disorders, antisocial personality disorder, borderline personality disorder, and any personality disorder; committing crimes of murder, sexual offenses, and serious offenses; and current residential status). African American males were identified as being an at-risk population. They were the most likely to have a schizophrenia diagnosis, a substance abuse diagnosis, an antisocial personality disorder diagnosis, and to be hospitalized on the survey date. Implications for treatment and future research are explored.

Traditionally there has been a high degree of interest in the insanity defense, particularly when the issue is raised in highly publicized cases (e.g., John Hinckley, John Dupont). Despite this interest regarding defendants acquitted as not guilty by reason of insanity (NGRI), there has been relatively little empirical study of

the characteristics of these individuals. In particular, research that explores possible gender or racial differences in insanity acquittees is lacking. As the number of females in the criminal justice system is growing, it also becomes increasingly important to examine gender differences. Additionally, there is a disproportionately large number of African Americans in the criminal justice system, so it is also relevant to examine potential racial differences as they may apply to insanity acquittees.

We found only one recent study of

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Dr. Linhorst is affiliated with St. Louis University, Dr. Hunsucker with Missouri Department of Corrections, and Dr. Parker with St. Louis Psychiatric Rehabilitation Center, St. Louis, MO. Address correspondence to: Donald M. Linhorst, PhD, St. Louis University, School of Social Service, 3550 Lindell Blvd., St. Louis, MO 63103.

insanity acquittees that focused on racial differences.<sup>1</sup> However, the emphasis of that study was on racism in the insanity plea process rather than on racial differences among insanity acquittees *per se*, which is the focus of our current study. We identified three recent studies that focused solely on, and consistently found, gender-related differences among insanity acquittees.<sup>2-4</sup> In general, female insanity acquittees were older, were more likely to be married, were less likely to be substance abusers, had less extensive criminal histories, and were hospitalized for shorter periods of time.<sup>2-4</sup> Disparate findings existed in regard to diagnoses. Specifically, Zonana *et al.*<sup>4</sup> found that female insanity acquittees were more likely than males to receive diagnoses of psychoses, whereas Bloom and Williams<sup>2</sup> and Seig *et al.*<sup>3</sup> found that females were more likely to receive other diagnoses (e.g., depression, borderline personality disorder).

Our current study adds to the limited body of information by examining differences in gender and race among 842 insanity acquittees committed to the Missouri Department of Mental Health (MDMH). Included in the study were 42 African American females, 279 African American males, 63 Caucasian females, and 458 Caucasian males. We present descriptive data for each gender/racial group in the areas of demographic information, psychiatric diagnoses, NGRI committing crimes, and residential status.

Missouri's forensic system and its insanity acquittee population have been described elsewhere and will not be repeated in depth here.<sup>5-10</sup> The most

outstanding feature of Missouri's insanity acquittee statute<sup>11</sup> is its strong public safety orientation. The burden of proof is on the defendant to demonstrate the lack of criminal responsibility, with a modified McNaughtan standard serving as the test of criminal responsibility. For those insanity acquittees who committed serious offenses as their NGRI committing crimes, Missouri statute requires automatic hospitalization in a MDMH psychiatric hospital. In practice, the courts automatically hospitalize almost all insanity acquittees at the time of the NGRI acquittal, regardless of the severity of the NGRI committing crime.

To be released from the hospital to reside in the community, the insanity acquittee must obtain a court-ordered conditional release. The burden of proof is on the insanity acquittee to prove to the circuit court by clear and convincing evidence that he or she is not likely to be dangerous to others while on conditional release. Prior to the circuit court acting on the release application, MDMH staff review the release application to determine if they will testify in support of the release, and the Attorney General reviews the application to decide if that office will file the release application with the courts on behalf of MDMH when it supports the release. In addition, prosecuting attorneys have the statutory responsibility to represent public safety interests in release decisions. Prosecuting attorneys from the county of the committing court, from the county in which the MDMH hospital is located, and from the county in which the insanity acquittee is seeking to reside are all notified of release applications.

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Once conditionally released from hospitalization, insanity acquittees must comply with court-ordered conditions of release or risk revocation of their conditional releases, which results in their involuntary return to a MDMH hospital. MDMH operates a statutorily required conditional release monitoring and revocation program. Nine clinical social workers, referred to as Forensic Case Monitors, supervise the approximately 400 insanity acquittees who currently reside in the community on conditional release. Revocation authority rests with either the MDMH Director of Forensic Services or the circuit court judge who issued the conditional release order. Finally, while some states limit the length of commitment of insanity acquittees, Missouri statute allows indefinite oversight by MDMH and the criminal justice system in a psychiatric hospital or with community supervision. In contrast to an average of 50 new insanity acquittals each year, Missouri circuit courts have granted an average of only 18 unconditional releases each year since 1986.

## Method

We conducted this study through a secondary analysis of a cross-sectional data set of all insanity acquittees under MDMH supervision on July 1, 1996, which totaled 853. We excluded 11 non-Caucasian, non-African American insanity acquittees from this analysis because of their small numbers and to allow for a comparison of Caucasian and African American insanity acquittees rather than simply Caucasian and non-Caucasian insanity acquittees. Among the remaining

842 insanity acquittees included in the study, 737 were males (87.5%) and 105 were females (12.5%); and 521 were Caucasian (61.9%) and 321 were African American (38.1%). The mean age of all insanity acquittees in Missouri on July 1, 1996, was 43.7 years ( $SD = 10.9$ ), and ages ranged from 18.3 to 86.3 years. Less than half of the insanity acquittees had ever been married (42.2%), and 8.6 percent were married at the time of the survey. On the survey date, 442 insanity acquittees (52.5%) were hospitalized in MDMH long-term psychiatric hospitals, while the courts had conditionally released the remaining 400 insanity acquittees (47.5%) to a variety of community residential settings.

This data set contained a range of variables including demographic information, psychiatric diagnoses, NGRI committing crimes, and residential status. Psychiatric diagnoses were derived from the DSM-IV.<sup>12</sup> Because many of these insanity acquittees carried more than one diagnosis, we reported percentages of insanity acquittees carrying each major diagnostic category instead of listing only the primary diagnosis of insanity acquittees.

We coded crime data in two stages. First, if the insanity acquittees had multiple NGRI committing crimes, we selected the one most serious crime. In the second coding stage, we grouped crime data according to the percentage of insanity acquittees who had committed serious offenses, which are the eight crimes identified in Missouri's insanity acquittee statute that require additional testimony requirements for release. These include first and second degree murder, first de-

**Table 1**  
**Differences in Gender and Race (%) Across Four Missouri Populations**

	General Population <sup>a</sup>	Prison Population <sup>b</sup>	MDMH Clients <sup>c</sup>	Insanity Acquittees <sup>d</sup>
Gender				
Males	48.2	94.2	59.6	87.5
Females	51.8	5.8	40.4	12.5
Race				
Caucasian	87.7	51.4	73.6	61.1
African American	10.7	48.2	25.2	37.6
Other	1.6	0.4	1.2	1.3

<sup>a</sup>Missouri residents as reported in 1990 United States census data.

<sup>b</sup>Inmates in Missouri Department of Correction prisons on December 31, 1994 (Missouri Department of Corrections, *The Almanac*, 1994).

<sup>c</sup>Based on an unpublished 1994 survey of a sample of MDMH clients receiving psychiatric services in the community.

<sup>d</sup>Based on a survey of all insanity acquittees under MDMH supervision on July 1, 1996.

gree arson, kidnapping, first degree robbery, first degree assault, rape, sodomy, and sexual assault. We also calculated the percentage of insanity acquittees who committed murder, sexual offenses, assault, and burglary, as these were the four most frequent groupings of crimes committed by Missouri insanity acquittees.

We operationalized residential status from two time perspectives. First was whether the insanity acquittee was ever conditionally released into the community, regardless of whether he or she was rehospitalized following the loss of the conditional release. Second was the current residential status, indicated by whether the insanity acquittee was residing in a MDMH long-term psychiatric hospital or in the community on July 1, 1996.

We analyzed differences in demographic information, psychiatric diagnoses, NGRI committing crimes, and residential status across gender, race, and a variable that combined gender and race, which included African American fe-

males, African American males, Caucasian females, and Caucasian males. We conducted bivariate cross-tabulations between the gender and race variables and the other variables. We used chi squares to measure differences in the qualitative variables, and *t* tests or *F* tests with the continuous variables. In addition, we conducted three trivariate analyses to further explore major differences found in the bivariate analyses.

## Results

**Demographic Information** As stated above, Missouri insanity acquittees are predominately male (87.5%) and Caucasian (61.9%). To provide a context for these proportions, Table 1 compares the distribution of insanity acquittees with Missouri's general population, with its prison population, and with a sample of MDMH clients receiving community psychiatric services. While females comprise just over half of Missouri's population, they comprise 40.4 percent of the persons receiving MDMH community psychiatric

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services and 5.8 percent of the prison population. African Americans, who comprise 10.7 percent of Missouri's general population, are overrepresented in Missouri's prisons (48.2%), as MDMH clients (25.2%), and as insanity acquittees (37.2%). Compared with the state prison population in Missouri, females were overrepresented and African Americans were underrepresented among Missouri insanity acquittees, which is a finding similar to other studies.<sup>13-15</sup>

Caucasian males constituted the largest gender/race category of insanity acquittees (54.4%), while African American males were 33.1 percent of the group, Caucasian females were 7.5 percent, and African American females were 5.0 percent. Age differences between the four groups were small and not statistically significant. This finding is inconsistent with past research, which typically found females to be older,<sup>2-4</sup> although this finding is not universal.<sup>15</sup> Differences existed in marital status, with Caucasian insanity acquittees and female insanity acquittees also being more likely to have ever been married, which is consistent with prior research.<sup>2-4</sup> Caucasian females were most likely to have ever been married, while African American males were the least likely to have ever been married (77.8% and 32.6%, respectively). However, only 8.2 percent of insanity acquittees were married on the survey date, and differences between the four gender/race categories were small and not statistically significant. Table 2 summarizes the demographic information.

**Psychiatric Diagnoses** The single most frequent diagnosis among Missouri

**Table 2**  
**Demographic Information for Missouri Insanity Acquittees on July 1, 1996 (N = 842)**

	Female (N = 105)		Male (N = 737)		African American (N = 321)		Caucasian (N = 521)		African American (N = 42)		African American (N = 279)		Caucasian (N = 63)		Caucasian (N = 458)	
	Percentage	(SD)	Percentage	(SD)	Percentage	(SD)	Percentage	(SD)	Percentage	(SD)	Percentage	(SD)	Percentage	(SD)	Percentage	(SD)
Sex and race																
Mean age in years	12.5%	45.2	87.5%	43.4	38.1%	43.3	61.9%	43.9	5.0%	43.7	33.1%	43.2	7.5%	46.3	54.4%	43.5
Ever married	66.7%***	(SD = 11.9)	38.7%***	(SD = 10.7)	34.9%***	(SD = 9.6)	46.6%***	(SD = 11.6)	50.0%***	(SD = 12.1)	32.6%***	(SD = 9.1)	77.8%***	(SD = 11.7)	42.4%***	(SD = 11.6)
Currently married	13.3%		7.9%		8.7%		8.4%		9.5%		8.6%		15.9%		7.4%	

\*\*\*p ≤ .001.

insanity acquittees was schizophrenia (67.7%). In addition, many insanity acquittees had significant secondary diagnoses. Most prominent were diagnoses of substance abuse (49.3%), personality disorder (40.3%), and borderline intellectual functioning/mental retardation (21.3%). Table 3 includes complete information on the diagnoses.

Major differences existed in diagnoses across the four gender/race categories. Of the 10 diagnostic categories examined, borderline intellectual functioning/mental retardation was the only diagnostic category in which we did not find meaningful and statistically significant differences. The greatest differences across the four gender/race categories were in the diagnostic categories of schizophrenia, substance abuse, and antisocial personality disorder. First considering schizophrenia, male and African American insanity acquittees were more likely to have schizophrenia, which is consistent with most other studies,<sup>2, 3, 16</sup> although one study found that female insanity acquittees had a slightly higher rate of schizophrenia.<sup>15</sup> However, this study suggests that race appears to be the more important factor. African American males and females had higher rates of diagnosed schizophrenia (82.4% and 71.4%, respectively) than either Caucasian males or females (60.7% and 50.8%, respectively).

When examining substance abuse diagnoses, wide variation also existed across the four insanity acquittee groups. Specifically, male and African American insanity acquittees had higher rates, which is consistent with past research.<sup>3, 4, 16</sup> In contrast to the diagnosis of schizophrenia,

Table 3  
Psychiatric Diagnoses (%) of Missouri Insanity Acquittees on July 1, 1996 (N = 842)

	Female (N = 105)		Male (N = 737)		African American (N = 321)		Caucasian (N = 521)		African American (N = 42)		African American (N = 279)		Caucasian (N = 63)		Caucasian (N = 458)	
Schizophrenia	59.0*	68.9*	81.0***	59.5***	71.4***	82.4***	50.8***	60.7***								
Mood disorder	29.5**	18.2**	13.4***	23.4***	19.0***	12.5***	36.5***	21.6***								
Substance abuse	23.8***	52.9***	55.8**	45.3*	26.2**	60.2***	22.2**	48.5***								
Sexual disorders	0*	4.6*	0.6***	6.1***	0***	0.7***	0***	7.0***								
Other Axis I diagnoses	15.2*	8.4*	5.3**	11.7**	9.5**	4.7**	19.0**	10.7**								
Antisocial personality	5.7***	24.3***	35.5***	13.6***	4.8***	40.1***	6.3***	14.6***								
Borderline personality	6.7***	1.4***	0.9	2.7	2.4***	0.7***	9.5***	1.7***								
Any personality disorder	25.7***	42.3***	46.7**	36.3**	19.0***	50.9***	30.2***	37.1***								
Borderline intellectual functioning/MR	21.9	21.2	21.8	20.9	23.8	21.5	20.6	21.0								

\*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001.

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gender appears to be the dominant factor in having this diagnosis. Among males, 60.2 percent of African Americans and 48.5 percent of Caucasians had a substance abuse diagnosis, compared with 26.2 percent of African American females and 22.2 percent of Caucasian females.

The final diagnostic category in which major differences existed was antisocial personality disorder. Male and African American insanity acquittees were more likely to have this diagnosis. However, among the four gender/race groups, African American males had by far the highest rate (40.1%). In comparison, only 14.6 percent of Caucasian males, 6.3 percent of Caucasian females, and 4.8 percent of African American females were diagnosed with antisocial personality disorder. The presence of higher rates of antisocial personality disorder among males is consistent with past research.<sup>12, 17-19</sup> The finding of higher rates of antisocial personality disorder among African American insanity acquittees is inconsistent with a study of a psychiatric emergency service population<sup>16</sup> and among a jail detainee population,<sup>20</sup> which both found that Caucasians had higher rates of this diagnosis, although a study of antisocial personality disorder among a prison population found that African American inmates were more likely to carry the diagnosis.<sup>21</sup>

Finally, any discussion of differences in diagnoses across race should be tempered by research that suggests that differences in psychiatric diagnoses across race disappear when controlling for socioeconomic status.<sup>22</sup> Unfortunately, the

information available on Missouri's insanity acquittees did not include socioeconomic status. Additionally, this information would be difficult to obtain and assess because many of the insanity acquittees have been hospitalized for extended periods of time and have had substantial changes in socioeconomic status.

**NGRI Committing Crimes** We examined NGRI committing crimes in two ways. First, we calculated the percentage of insanity acquittees who committed serious offenses, defined as those requiring additional testimony requirements for release. These included first and second degree murder, first degree arson, kidnapping, first degree robbery, first degree assault, rape, sodomy, and sexual assault. In addition, we grouped the percentage of insanity acquittees who committed crimes in the four most frequent crime categories, those being murder, sexual offenses, assault, and burglary. Table 4 includes the results.

Overall, the differences noted in NGRI committing crimes between gender and race were less than for psychiatric diagnoses. Statistically significant differences between males and females were not found for serious offenses, assault, or burglary. However, females were more likely to have committed murder and less likely to have committed sexual offenses than males, which is consistent with past research.<sup>2-4, 15</sup> Among the two racial groups, African Americans were more likely to have committed serious offenses than Caucasians (52.6% and 44.3%, respectively), but statistically significant differences were not found in the percentage of insanity acquittees who committed

Table 4  
 NGRI Committing Crimes (%) among Missouri Insanity Acquittees on July 1, 1996 (N = 842)

	Female (N = 105)	Male (N = 737)	African American (N = 321)	Caucasian (N = 521)	African American Female (N = 42)	African American Male (N = 279)	Caucasian Female (N = 63)	Caucasian Male (N = 458)
Serious offenses <sup>a</sup>	56.2	46.3	52.6*	44.3*	57.1*	52.0*	55.6*	42.8*
Murder	26.7***	13.8***	16.5	14.8	31.0**	14.3**	23.8**	13.5**
Sexual offenses	1.9***	14.0***	10.3	13.8	2.4**	11.5**	1.6**	15.5**
Assault	30.5	27.1	29.9	26.1	28.6	30.1	31.7	25.3
Burglary	5.7	11.5	12.5	9.8	4.8	13.6	6.3	10.3

<sup>a</sup>These offenses carry higher statutory release requirements: first and second degree murder; first degree arson; kidnapping; first degree robbery; first degree assault; rape; sodomy; and sexual assault.  
 \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001.

murder, sexual offenses, assault, or burglary.

Among the four gender/race categories, two findings were notable. First, Caucasian males were the least likely to have committed a serious offense. They committed serious offenses at a rate of 42.8 percent, compared with 52.0 percent of African American males, 55.6 percent of Caucasian females, and 57.1 percent of African American females, differences that were statistically significant. Second, African American females had by far the highest rate of murder as an NGRI committing crime. Almost one-third (31.0%) of African American females committed murder, compared with 23.8 percent of Caucasian females, 14.3 percent of African American males, and 13.5 percent of Caucasian males.

**Residential Status** We viewed the residential status of insanity acquittees from two time perspectives. The first was whether they had ever gained a court-ordered conditional release to reside in the community. This is relevant because almost all insanity acquittees are hospitalized upon acquittal. The second was whether insanity acquittees were hospitalized in a MDMH long-term psychiatric hospital or were living in the community on the survey date of July 1, 1996. It was expected that the percentage of insanity acquittees residing in the community on the survey date would be considerably less than those ever granted a conditional release, because of Missouri's extensive conditional release monitoring and revocation program. Table 5 contains the results of the two analyses of residential status.

Table 5  
Residential Status (%) of Missouri Insanity Acquittees on July 1, 1996 (N = 842)

	Female (N = 105)	Male (N = 737)	African American (N = 321)	Caucasian (N = 521)	African American Female (N = 42)	African American Male (N = 279)	Caucasian Female (N = 63)	Caucasian Male (N = 458)
Ever granted a conditional release	70.5	68.2	70.7	67.2	76.2	69.9	66.7	67.2
Currently in community	60.0**	45.7**	41.7**	51.1**	64.3***	38.4***	57.1***	50.2***

\*\*p ≤ .01, \*\*\*p ≤ .001.

Overall, 68.5 percent of all insanity acquittees had at one time received a conditional release to reside in the community. Male and female insanity acquittees were released at approximately the same rate, which is consistent with a study of Oregon insanity acquittees.<sup>2</sup> Similarly, differences in the rate of release into the community across racial groups did not exist. Among the four gender/race groups, African American females were the most likely to have received a conditional release (76.2%), and Caucasian females were the least likely (66.7%), although these differences were not statistically significant.

While we did not find differences across gender and race in the conditional release of insanity acquittees into the community, differences in residential status on the survey date existed. On the survey date, 47.5 percent of all insanity acquittees were still residing in the community, which is considerably less than the 68.5 percent of insanity acquittees who had ever received a conditional release. Females were more likely than male insanity acquittees to reside in the community on the survey date (60.0% and 45.7%, respectively), as were Caucasian compared with African American insanity acquittees (51.1% and 41.7%, respectively). Comparing the four gender/race categories, African American females were the most likely to reside in the community (64.3%), while 57.1 percent of Caucasian females, 50.2 percent of Caucasian males, and 38.4 percent of African American males were residing in the community on the survey date. Differences across gender and race, as well

as across the four gender/race categories, were all statistically significant.

**Trivariate Analyses** One of the most striking variations across the four gender/race categories was the low percentage of African American males who were residing in the community on the survey date. While 69.9 percent of all African American males had once been granted conditional releases to reside in the community, only 38.4 percent were still living in the community on the survey date. This is in sharp contrast to African American females, who had the highest rate of community residence on the survey date (64.3%), and to Caucasian males, who had the second lowest rate (50.2%). To further assess the relationship between gender/race and community residence on the survey date, we conducted three trivariate analyses. We included diagnoses of schizophrenia, substance abuse, and antisocial personality disorder as control variables, because African American males had the highest rates of these three diagnoses among the four gender/race categories. Table 6 contains the results.

Missouri insanity acquittees with a diagnosis of antisocial personality disorder were less likely overall to be living in the community on the survey date. When controlling for antisocial personality disorder, the results suggest that the relationship between gender/race and community residence of the survey date is spurious. When we controlled for the effects of an antisocial personality disorder diagnosis, differences in the percentages of community residence across the four gender/race categories were small and not statistically significant.

The second trivariate analysis applied substance abuse diagnoses as the control variable. Consistent with having an antisocial personality disorder diagnosis, insanity acquittees with a substance abuse diagnosis were less likely to reside in the community on the survey date. An examination of the results from Table 6 suggests that the addition of substance abuse diagnoses as a control variable further specified the relationship between gender/race and community residence on the survey date. Among those without a substance abuse diagnosis, differences in the percentage of community residence across the four gender/race categories were small and not statistically significant. However, among those insanity acquittees with a substance abuse diagnosis, African American males and Caucasian females had rates of community residence on the survey date that were considerably lower than either African American females or Caucasian males.

A third control variable for the trivariate analysis was a diagnosis of schizophrenia. When controlling for schizophrenia, the relationship between gender/race and community residence on the survey date was once again further specified. Among insanity acquittees without a schizophrenia diagnosis, differences in the percentage of community residence among the four gender/race categories were small and not statistically significant. Among those with a schizophrenia diagnosis, African American males had the lowest rate of community residence, a difference that was statistically significant.

In summary, when separately control-

**Table 6**  
**Percentage of Community Residence by Gender and Race, Controlling for Diagnoses of Antisocial Personality Disorder, Substance Abuse, and Schizophrenia**

	Antisocial Personality Disorder							
	No				Yes			
	African American female (N = 40)	African American male (N = 167)	Caucasian female (N = 59)	Caucasian male (N = 391)	African American female (N = 2)	African American male (N = 112)	Caucasian female (N = 4)	Caucasian male (N = 67)
Residing in community on July 1, 1996	65.0	46.1	61.0	52.9	50.0	26.8	0	34.3
	Substance Abuse Diagnosis							
	No				Yes			
	African American female (N = 31)	African American male (N = 111)	Caucasian female (N = 49)	Caucasian male (N = 236)	African American female (N = 11)	African American male (N = 168)	Caucasian female (N = 14)	Caucasian male (N = 222)
Residing in community on July 1, 1996	64.5	55.0	65.3	53.4	63.6***	27.4***	28.6***	46.8***
	Schizophrenia Diagnosis							
	No				Yes			
	African American female (N = 14)	African American male (N = 62)	Caucasian female (N = 34)	Caucasian male (N = 210)	African American female (N = 28)	African American male (N = 217)	Caucasian female (N = 29)	Caucasian male (N = 248)
Residing in community on July 1, 1996	64.3	45.2	61.8	48.6	64.3**	36.4**	51.7**	51.6**

\*\*p ≤ .01; \*\*\*p ≤ .001.

ling for the diagnoses of antisocial personality disorder, substance abuse, and schizophrenia, lower rates of community residence on the survey date were found among African American male insanity acquittees only when they carried substance abuse diagnoses and when they carried schizophrenia diagnoses.

### Discussion

We were somewhat surprised to find that greater differences did not exist across the four gender/race categories, given previous studies of gender and race among insanity acquittees. Differences between the four gender/race categories were not found in age, current marital status, a diagnosis of borderline intellectual functioning/mental retardation, committing crimes of assault and burglary, and whether insanity acquittees had ever received conditional releases to reside in the community. In contrast, differences were found in whether insanity acquittees were ever married; eight of nine diagnostic categories; committing crimes of sexual offenses, murder, and sexual offenses; and current residential status. In some instances, variations across the four gender/race categories were related to race (diagnoses of schizophrenia, mood disorders, and other Axis I diagnoses), while more frequently they were related to gender (whether ever married; diagnoses of substance abuse, sexual disorders, antisocial personality disorder, borderline personality disorder, and any personality disorder; committing crimes of murder, sexual offenses, and serious offenses; and current residential status).

One of the study's most significant

findings was the degree to which African American males were socially disenfranchised. Well apart from the other three gender/race categories, we found that African American males were the most likely to have never been married; to have diagnoses of schizophrenia, substance abuse, and antisocial personality disorder; and to be rehospitalized following conditional release into the community. While the impact of some differences were diminished when adding control variables, it is still clear that African American male insanity acquittees are an at-risk population. This same condition did not hold true for African American females. Despite having the highest rate of murder as their NGRI committing crime, African American females were the most likely of the four gender/race groups to be granted a conditional release and to remain in the community. In addition, African American females compared with African American and Caucasian males had lower rates of substance abuse and personality disorder diagnoses, which may, in part, be associated with their community success.

Our findings have at least indirect treatment implications. First, we found insanity acquittees with substance abuse and antisocial personality disorder diagnoses to be at greater risk for conditional release revocation. This implies the need for treatment for both diagnostic categories, which may best be provided in both inpatient hospitals and community settings. MDMH reached this conclusion also, and included hospital programs to treat substance abuse and personality disorders as components of its initiative to implement

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psychosocial rehabilitation in its four long-term psychiatric hospitals.<sup>7, 23</sup> In addition, MDMH is trying to provide a better linkage between hospital and community substance abuse services and to expand its hospital program for treatment of personality disorders into community settings. As found in our trivariate analyses, African American males with substance abuse diagnoses and antisocial personality disorder diagnoses were at the greatest risk for rehospitalization among insanity acquittees with those disorders. It is, therefore, imperative that treatment programs be culturally sensitive to better address the needs of African American male insanity acquittees.

The results also suggest treatment implications for female insanity acquittees. First, they were more likely to have a borderline personality disorder diagnosis. At least one MDMH long-term hospital has established separate treatment programs for male insanity acquittees with antisocial personality disorder and female insanity acquittees with borderline personality disorder. Also, female insanity acquittees were more likely to have committed murder as their NGRI committing crime. One MDMH long-term hospital found that female insanity acquittees who committed murder were much more likely than males to have had family members as victims. Consequently, the hospital now runs a special support group for female insanity acquittees who murdered family members.

Because this study was primarily descriptive, future research is needed to explore causal factors in differences among insanity acquittees across the four categories

of gender and race. As the basic trivariate analyses from this study illustrated, multivariate techniques are essential for sorting out the various influences of gender and race. In addition to the variables we examined, other relevant factors may include such areas as criminal history prior to the insanity acquittal, social support in the community, the relationship to crime victims, previous psychiatric contacts, and substance abuse treatment received.

Future research is also appropriate for analysis of clinical decision making and its effect on gender and racial differences, particularly surrounding African American males. For example, do African American male insanity acquittees have increased rates of substance abuse and personality disorders, or is the increased rate an artifact of racial bias in the psychiatric diagnosis process? Do African American male insanity acquittees actually engage in more dangerous behaviors in the community, which may account for their lower rate of community residence; or is there racial bias in the way their actions in the community are perceived; or do they possess other characteristics, such as more extensive criminal histories prior to NGRI acquittal or more severe mental illnesses, that may warrant a differential rate of rehospitalization?

Finally, this study did not address how the criminal justice system may impact the gender and racial differences we found. Previous research has consistently found gender and racial biases in the criminal justice system, but it is not clear how these biases impact the insanity plea and acquittal process. Future research

should focus on gender and racial differences in the determination of who receives psychiatric evaluations at the pre-trial phase, who enters the insanity plea, and who is actually found NGRI. In addition, future research should examine potential biases emanating from the criminal justice system in states that involve the Attorney General, prosecutors, and circuit court judges in the release of insanity acquittees from hospitalization and any subsequent rehospitalization if they violate their conditions of release. Such research would help to clarify the relationship between the criminal justice and mental health systems and the impact of these systems on gender and racial differences among insanity acquittees.

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