

# Dangerousness and Command Hallucinations: An Investigation of Psychotic Inpatients

M. Elizabeth Kasper, MA, Richard Rogers, PhD, and Pam A. Adams, MS

**Forensic consultations with psychotic inpatients frequently include issues of risk management, such as dangerousness and civil commitment. An important dimension of these consultations is the role of command hallucinations in producing an increased risk of aggressive behavior. In the present study, psychotic patients with command hallucinations (N = 27) were compared with patients with other hallucinations (N = 27) and with other psychotic patients (N = 30). The groups did not differ on aggressive behavior or most nonhallucinatory symptoms. However, most patients (84.0%) with command hallucinations had recently obeyed them. Among those with command hallucinations, almost one-half had heard and attempted to obey messages of self-harm during the last month.**

Forensic psychiatrists and psychologists are frequently asked to consult on the potential dangerousness of psychotic inpatients. Patients with hallucinations, particularly command hallucinations, have traditionally evoked lasting concerns about dangerous behavior. Case reports of patients responding with blind obedience to homicidal and suicidal commands, while often dramatic and atypical, underscore the demands placed on clinicians for accurate risk assessments and effective interventions.

Ms. Kasper is a predoctoral intern at Tulane School of Medicine, New Orleans, LA; Dr. Rogers is a professor of psychology and director of clinical training at the University of North Texas; and Ms. Adams is a doctoral student at the University of North Texas. Address correspondence to: Dr. Richard Rogers, University of North Texas, P.O. Box 13587, Denton, TX 76203-6587.

Studies are divided on the potential violence associated with command hallucinations. In a nonforensic setting, Hellerstein *et al.*<sup>1</sup> found no increased aggression in 789 consecutive psychiatric admissions. They reported 151 patients with auditory hallucinations and 58 (38.4%) with command hallucinations; many had suicidal themes, but only a few had homicidal content. In contrast, Mitchell and Vierkant<sup>2</sup> found that command hallucinations varied widely in civilly committed patients by the type of psychosis: for 100 inpatients with paranoid schizophrenia, 11 of 20 (55.0%) had violent commands; a comparison group of 100 chronic cocaine abusers revealed that 50 had auditory hallucinations, but only 1 of 4 patients had a violent hallucinatory command. These studies do not directly

address compliance with commands. Toward that end, Depp<sup>3</sup> found in a study of inpatient assaults that 9 of 60 (15.0%) violent incidents were preceded by command hallucinations.

Two very recent studies underscore the importance of command hallucinations in general psychiatric settings. Zisook *et al.*<sup>4</sup> reviewed 141 outpatient files of persons with schizophrenia. They found, through secondary sources, that 27.0 percent of patients had not reported their command hallucinations to treating clinicians. Of the patients with command hallucinations, 20 (43.5%) reported violent commands. Junginger<sup>5</sup> conducted a Structured Clinical Interview for DSM-III-R Diagnosis (SCID)-based study of 93 inpatients with command hallucinations. Based on independent ratings by a research assistant, he found a greater proportion of patients not complying with commands (75.6%) to be dangerous than those who fully complied (40.0%). The interpretation of these results are obscured by the fact that many persons heard only nonviolent commands. Therefore, we do not know what proportion of patients with violent commands were dangerous, either because of these commands or for other reasons.

Several forensic studies have highlighted the risk potential of patients with command hallucinations.<sup>6</sup> In a pretrial facility, Rogers and his colleagues<sup>7</sup> found that patients with command hallucinations tended to have more aggressive content than those with non-command hallucinations and that substantial numbers (44%) reported that they frequently responded to hallucinatory commands

with unquestioning obedience. In an examination of insanity acquittees, Thompson *et al.*<sup>8</sup> found that command hallucinations appeared to play a central role in the commission of offenses in 34 of 234 cases (14.5%). However, in 62.0 percent of the cases, command hallucinations played some role in the criminal activity during the episode prior to their arrest.

In forensic consultations on dangerousness for patients suspected of command hallucinations, three interrelated questions must be addressed. First, which symptoms assist in identifying patients with command hallucinations? Second, which symptoms predict violent command hallucinations? Third, which symptoms facilitate the prediction of compliance with command hallucinations?

Available research offers only sketchy responses to these questions. Patients with command hallucinations are likely to be schizophrenic<sup>1, 2, 5-7</sup> and to manifest certain nonpsychotic symptoms: self reproach, depersonalization, apnea, and no psychomotor retardation.<sup>6</sup> They tend to comply with hallucinations of familiar voices<sup>5, 9</sup> that are consistent with delusional beliefs.<sup>9</sup> Although patients are less likely to obey violent than nonviolent commands,<sup>9</sup> this finding may simply reflect the greater frequency of harmless commands. Because most prior studies were retrospective, we proposed to systematically investigate clinical differences among three inpatient groups of psychotic patients: command hallucination (CH), non-command hallucination (NCH), and no hallucinations (NONE).

### Method

The participants were 86 psychotic inpatients from a state hospital and a community hospital in Texas. All gave written informed consent. Inpatients were not approached for participation in the study until they had an opportunity to acclimatize to the unit and were recommended by the treatment staff. Participants were classified into CH ( $n = 27$ ), NCH ( $n = 27$ ), and NONE ( $n = 32$ ) groups. To clearly differentiate the three groups, we employed standard criteria proposed by Rogers *et al.*<sup>6</sup>: CH had command hallucinations in the last 30 days; NCH had non-command hallucinations in the last 30 days and no command hallucinations in the last 12 months; NONE had no hallucinations in the last 12 months. Consecutive sampling was employed for the data collection until the NCH and NONE groups were adequately represented. We then oversampled CH patients until we had sufficient numbers in all three groups.

Participants were administered the Schedule of Affective Disorders and Schizophrenia (SADS-C),<sup>10</sup> a semi-structured interview of key symptomatology that integrates interview and file data. Patients in the CH and NCH groups were also administered the Command Hallucination Questionnaire, developed by Resnick to examine the phenomenology of command hallucinations.<sup>11</sup> The three interviewers were doctoral students in clinical psychology who were trained in diagnostic interviews. As a check on SADS-C interrater reliability, joint interviews were conducted on seven psychotic

patients of whom four had command hallucinations. Despite florid symptomatology that often complicated the interview process, the interviewers achieved adequate reliability with a mean  $r$  for individual symptoms of .63 that compares favorably with reliability estimates for individual symptoms on most structured interviews.<sup>12</sup>

### Results

The study group consisted predominantly of men (69.0%,  $n = 58$ ); the mean age  $\pm$  SD was  $40.30 \pm 10.52$ . With respect to racial composition, the sample was 51 (60.7%) white, 26 (31.0%) African American, and 7 (8.1%) Hispanic American. The three groups did not differ on age, gender, or proportion of white subjects. For primary disorders, the participants had the following chart diagnoses: 47 (54.7%) schizophrenia, 13 (15.1%) bipolar disorder, 9 (10.5%) schizoaffective disorder, 5 (5.8%) psychosis not otherwise specified (NOS), 4 (4.7%) major depression, 8 (9.3%) other disorders.

Participants in the CH group tended to hear both harmless and violent commands (see Table 1). Of the 25 patients that could articulate the nature of their command hallucinations, only 4 (16.0%) had *not* obeyed a command in the last 30 days. For the purposes of this study, "obeyed" is defined operationally as compliance with the hallucinatory command or a significant portion of the command. Most patients with harmless commands or commands for self-harm had recently obeyed them. Violent commands toward others were less common and less fre-

**Table 1**  
**Content and Compliance with Potentially Dangerous Command Hallucinations by Psychotic Inpatients for the Most Recent 30 Days**

Type of Command	Heard by the Patient, N (%) <sup>a</sup>	Obedied by the Patient, N (%) <sup>b</sup>
Harmless command	20 (80.0)	18 (90.0)
Violent toward self	12 (48.0)	11 (91.7)
Violent toward others	9 (36.0)	6 (66.7)
Total	25 (100.0)	21 (84.0)

<sup>a</sup>Percentages are based on 25 patients with command hallucinations; two additional patients were unable to articulate the nature of their command hallucinations.

<sup>b</sup>Percentages are based on the number of patients with this type of command; they reflected the proportion of patients who obeyed this command at least once during the last 30 days.

quently obeyed. Taken together, these data suggest that command hallucinations, including those with violent content, are commonly obeyed by nonforensic psychotic inpatients.

We examined whether patients from the CH group posed a greater risk of violence than their NCH and NONE counterparts. We found no significant differences on the SADS-C with respect to suicidal tendencies or aggressive behavior. We conducted a chart review and interviewed patients about suicidal and aggressive behavior in the last 12 months; we found that more than one-half (48, or 55.8%) had engaged in violent behavior. However, we were unable to establish significant differences among the three groups. Original plans to assess predictors of compliance with harmless and violent commands could not be carried out because so few participants had not obeyed at least one of these commands in the last 30 days.

An important question is whether specific symptoms can assist in identifying persons with command hallucinations who are not forthcoming about these

symptoms. Toward this objective, we computed ANOVAs with Duncan's multiple range tests to evaluate differences among the three groups. To protect against type I error, only *F* ratios with  $p < .01$  were considered significant. We found that greater levels of depersonalization differentiated the CH group from the NCH and NONE groups ( $F = 6.59$ ,  $df = 2,81$ ,  $p < .01$ ). In addition, bizarre behavior was more severe among the CH and NCH than the NONE group ( $F = 6.54$ ,  $df = 2,81$ ,  $p < .01$ ).

## Discussion

Our findings suggest most psychotic inpatients with command hallucinations obey them even during their hospital stay. We were unable to collect more precise data on the frequency and compliance with hallucinations, because patients were too impaired to provide adequate estimates. Still, the current data fly in the face of earlier assertions<sup>13</sup> that nonforensic patients are unlikely to obey hallucinatory commands. We were also surprised to find the frequency of self-harm commands and the likelihood that these

## Command Hallucinations

would be obeyed at some point in a 30-day period. Moreover, violence toward others, while less likely to be present, poses a significant threat, despite treatment efforts.

Patients in public facilities often pose management risks because of aggressive behaviors toward self and others.<sup>3</sup> We found that the risk of violence appeared no greater for psychotic patients with command hallucinations than those with non-command hallucinations or no hallucinations. Psychiatrists can find little comfort in this finding; they still need to assess thoroughly antecedent symptoms of aggression. At least in this study, command hallucinations with a violent content appear to signal a substantial risk of aggressive behavior, particularly when the content includes self-harm.

Rogers *et al.*<sup>6</sup> identified four SADS symptoms that differentiated patients with command hallucinations from other psychotic patients. Of the three symptoms included on the SADS-C, we confirmed the potential usefulness of depersonalization as a possible indicator of command hallucinations. As the first nonarchival study to compare nonforensic patients with and without command hallucinations, these data question earlier beliefs about psychotic inpatients and their lack of propensity to obey harmless and violent commands. Larger studies may be successful in establishing predictor variables for differentiating patients with command hallucinations who pose a high risk of obedience.

The compilation of research, including the current study, has several important implications for forensic consultations.

These implications are enumerated below.

1. Command hallucinations, by themselves, may not pose an increased risk for aggressive behavior when compared to other psychotic inpatients. However, knowledge of command hallucinations may be critical in understanding the antecedents and causal factors of aggression in specific patients. Therefore, a thorough assessment of command hallucinations is often essential.

2. Many patients are not forthcoming about command hallucinations in either forensic<sup>8</sup> or nonforensic<sup>4</sup> settings. In cases in which command hallucinations are suspected but not documented, clinical inquiries about depersonalization may be an indirect and useful approach.

3. Complete denial of any obedience to commands should be questioned. The present data are consistent with past research<sup>5, 8</sup> that most patients have harmless commands and frequently obey them. Even with violent commands toward self and others, the >majority appear to have obeyed them sometime in the recent past.

4. Obedience to violent commands must be understood from the patient's perspective and assessed on a continuum. Patients often interpret hallucinatory commands based on their psychotic thinking. The forensic clinician must understand not only the content of the command but also the patient's understanding and response. Research on command hallucinations tends to characterize them as present or absent. From a clinical perspective, the type and extent of obedience is also important. For example, some patients make threatening gestures in re-

sponse to homicidal commands. Other patients attempt to fully carry out commands where the likelihood of intervention is very high (e.g., a suicide attempt in full view of clinical staff). Still others exercise care and even planning in response to command hallucinations. Risk assessment must take into account both the extent of the obedience as well as its likelihood of success.

### References

1. Hellerstein D, Frosch W, Koenigsberg H: The clinical significance of command hallucinations. *Am J Psychiatry* 144:219–21, 1987
2. Mitchell J, Vierkant AD: Delusions and hallucinations as a reflection of the subcultural milieu among psychotic patients of the 1930's and 1980's. *J Psychol* 125:269–74, 1989
3. Depp FC: Assaults in a public mental hospital, in *Assaults Within Psychiatric Facilities*. Edited by Lion JR, Reid WH. New York: Grune and Stratton, 1983
4. Zisook S, Byrd D, Kuck J, Jeste DV: Command hallucinations in outpatients with schizophrenia. *J Clin Psychiatry* 56:462–5, 1995
5. Junginger J: Command hallucinations and the prediction of dangerousness. *Psychiatr Serv* 46:911–14, 1995
6. Rogers R, Nussbaum D, Gillis R: Command hallucinations and criminality: a clinical quandary. *Bull Am Acad Psychiatry Law* 16: 251–8, 1988
7. Rogers R, Gillis JR, Turner RE, Frise-Smith T: The clinical presentation of command hallucinations in a forensic population. *Am J Psychiatry* 147:1304–7, 1990
8. Thompson JS, Stuart GL, Holden CE: Command hallucinations and legal insanity. *Forensic Rep* 5:29–43, 1992
9. Junginger J: Predicting compliance with command hallucinations. *Am J Psychiatry* 147: 245–7, 1990
10. Spitzer RL, Endicott J: *Schedule for Affective Disorders and Schizophrenia—Change Version*. New York: Biometrics Research, 1979
11. Resnick PJ: *Command Hallucination Questionnaire* (unpublished scale). Cleveland, OH: University Hospitals of Cleveland, 1992
12. Rogers R: *Diagnostic and Structured Interviewing*. Tampa, FL: Psychological Assessment Resources, 1995
13. Goodwin DW, Alderson P, Rosenthal R: Clinical significance of hallucinations in psychiatric disorders. *Arch Gen Psychiatry* 24:76–80, 1971