

Command Hallucinations, Compliance, and Risk Assessment

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Command hallucinations are auditory hallucinations that instruct a patient to act in specific ways; these commands can range in seriousness from innocuous to life-threatening. This article summarizes two areas of research regarding command hallucinations: rates of compliance with command hallucinations; and factors associated with compliance. Researchers have reported rates of compliance ranging from 39.2 percent to 88.5 percent. Compliance has not been consistently related to dangerousness of commands. Instead, research suggests that individuals are more likely to comply with commands if they recognize the hallucinated voice and if their hallucinations are related to a delusion. Implications for risk assessment are discussed in light of the research.

Mental health professionals are often called upon to assess the risk of violence posed by people with mental disorders.¹⁻³ In making these assessments, the clinician must consider and evaluate the relevant risk factors, including those related to an individual's clinical condition. Command hallucinations are among the clinical factors that have received increased clinical and empirical attention in recent years. Command hallucinations are auditory hallucinations that instruct the patient to act in a certain manner. The

actions that command hallucinations order the patient to perform range from the insignificant, such as making facial grimaces, to those as serious as suicidal or homicidal acts. Clinical lore suggests that people are prone to obey their command hallucinations and that "dangerous" commands increase the likelihood that an individual will engage in violent behavior. Empirical studies have produced more mixed results.

This article examines the empirical evidence in two critical areas: (1) the rate of compliance with command hallucinations; and (2) the factors associated with increased compliance with command hallucinations. It then discusses the factors that a clinician should consider when conducting a risk assessment involving command hallucinations.

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Rates of Compliance with Command Hallucinations

Studies of single subjects or small samples have often indicated that those who experience command hallucinations are likely to comply with the commands.⁴⁻⁶ This topic has only recently been examined using samples large enough to permit more generalizable statements about the rate of compliance. Table 1 summarizes the results of these studies. A cursory examination of these data reveals two, apparently discrepant, trends. Some studies^{7,8} have concluded that command hallucinations rarely influence the behavior of those who experience them, including the dangerous behavior of forensic patients. These studies, however, do not report actual rates of compliance with command hallucinations. Instead, they report that commands were "generally ignored" (Goodwin *et al.*, p. 78)⁷ and note that patients experiencing command hallucinations with violent content did not display higher rates of violent behavior. Junginger,⁹ however, has noted that compliance with hallucinations is mediated by the hospital environment. Psychiatric inpatients—such as the patients which comprise the samples for Goodwin *et al.*⁷ and Hellerstein *et al.*⁸—would be prevented from complying with most commands to injure themselves or others by the relatively high degree of observation, structure, and security inherent in a hospital environment. The fact that suicidal or homicidal command hallucinations are not associated with a higher rate of suicidal or homicidal acts in the hospital does not mean that compliance rates would remain

equally low in a different, less structured environment.

Researchers report higher rates of compliance with command hallucinations when they have examined compliance with all commands (i.e., both lethal and nonlethal) and when they have inquired about compliance with commands before the patient was admitted to the hospital. Indeed, these studies have demonstrated relatively high rates of compliance (see Table 1), with estimates ranging from 39.2 percent (Junginger¹⁰) to 88.5 percent (Chadwick and Birchwood¹¹).*

An important issue regarding compliance with command hallucinations is whether compliance significantly increases a patient's degree of dangerousness. The current literature is divided on this question. Several studies indicate that patients experiencing command hallucinations with dangerous content are likely to comply with these orders and are therefore more likely to be dangerous themselves. Junginger, in two separate studies,^{9,10} has reported compliance rates of 45.8% and 40.0%, respectively, with dangerous command hallucinations. Kasper *et al.*¹³ reported that 91.7 percent of subjects experiencing command hallucinations ordering acts of violence against themselves complied with those orders, and 66.7 percent of those experiencing command hallucinations ordering acts of

* Study results reported by Taylor¹² include the highest rate of compliance with command hallucinations (100%). We have not included the results from this study when discussing the range of compliance observed by researchers because only two of the participants reported command hallucinations, and conclusions based upon such small sample sizes are unlikely to be robust.

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Table 1
Compliance with Command Hallucinations (CH) and Dangerousness Associated with CH
Reported in Empirical Studies

Study	Sample Characteristics	Percentage of Compliance with Command Hallucinations	Information Related to Dangerousness in Patients Experiencing CH
Among clinical or offender population:			
Goodwin <i>et al.</i> ⁷	117 Psychiatric inpatients and outpatients; 42 patients with CH	— ^a	0.0% Compliance in three patients experiencing CH with suicidal content
Hafner and Boker ²⁷	259 Forensic patients	18.5	18.5% Ordered by CH to commit crime
Taylor ¹²	203 Forensic patients; 2 patients with CH	100	One patient complied with order to carry knife
Among patients with command hallucinations:			
Chadwick and Birchwood ¹¹	26 Psychiatric inpatients and outpatients	88.5 ^b	0.0% Complied with "severe" (i.e., life-threatening) commands
Hellerstein <i>et al.</i> ⁸	58 Psychiatric inpatients	— ^a	51.7% Suicidal content; 5.2% homicidal content; 12.1% lethal injury to self or others content ^c
Junginger ⁹	93 Psychiatric inpatients	40.0 ^d	45.8% Compliance among patients with somewhat dangerous or very dangerous CH
Junginger ¹⁰	51 Psychiatric inpatients and outpatients	39.2	40.0% Compliance with dangerous CH
Kasper <i>et al.</i> ¹³	25 Psychiatric inpatients; 2 patients could not articulate nature of CH	84.0	91.7% Compliance with CH ordering violence toward self; 66.7% compliance with CH ordering violence toward others
Rogers <i>et al.</i> ²⁶	25 Forensic patients	80.0 ^e	4.5% Criminal content; 59.0% mixed criminal and noncriminal content ^c
Thompson <i>et al.</i> ¹⁴	34 Forensic patients (found NGRI)	74.0	62.0% Of command hallucinations related to crime committed
Zisook <i>et al.</i> ¹⁵	46 Psychiatric outpatients	— ^a	44% Violent content ^c

^a Rate of compliance not reported.

^b Represents at least occasional or partial compliance.

^c Represents rate of content of commands, not rate of compliance.

^d Represents "full compliance" with command hallucinations; percentage increases to 55.9% when "partial" or "full compliance" is considered.

^e Represents compliance with command hallucinations in recent past; 56.0% of the sample reported at least one instance of unquestioned obedience, and 44.0% reported frequent or very frequent obedience.

violence toward others complied with those orders.

Not all studies have shown that command hallucinations are associated with increased dangerousness. In a retrospective case review of forensic patients found not guilty by reason of insanity (NGRI), Thompson *et al.*¹⁴ reported that command hallucinations contributed to the patient's acquittal offense in 62 percent of subjects reporting command hallucinations during the time of their offense. These patients, however, were less likely to have been acquitted of *violent* offenses than NGRI patients who had been experiencing noncommand auditory hallucinations and NGRI patients who had not been experiencing auditory hallucinations at all. Chadwick and Birchwood¹¹ reported that although 88.5 percent of their sample complied with command hallucinations, none of their sample complied with "severe" (i.e., life-threatening or dangerous) commands. Similarly, Zisook *et al.*¹⁵ reported that the rate of suicide attempts did not differ between patients reporting command hallucinations with suicidal content and patients who did not report command hallucinations (although both of the patients who successfully committed suicide in this study had been experiencing suicidal command hallucinations). The dangerousness issue is further complicated when studies have not reported rates of compliance with command hallucinations but instead have reported only rates of specific contents of the commands. For example, Rogers *et al.*¹⁶ reported that 59.0 percent of their sample experienced command hallucinations with mixed criminal

and noncriminal content. They did not, however, report how many patients complied with these commands.

Factors Associated with Compliance

As indicated above, the dangerousness of the content of commands is not consistently related to compliance. Several features of command hallucinations appear to mediate compliance. Junginger^{9, 10} reported that patients are more likely to comply with familiar voices than with unfamiliar voices. Similarly, Shore *et al.*¹⁷ noted three factors that increase the risk that people with schizophrenia will engage in self-mutilation: (1) the presence of command hallucinations, (2) calm reactions to the voices, and (3) trusting the voices. Chadwick and colleagues^{18, 19} have also reported that voices that were described as "benevolent" by the patient were associated with greater "engagement" (a reaction that includes both compliance and seeking out the voices). It is likely that individuals experiencing command hallucinations are more likely to trust voices they believe they can identify. This trust may enhance compliance, because patients are more likely to assume that recognizable, trustworthy voices are ordering behaviors that are in the patients' best interests.

A patient's beliefs—especially his or her beliefs about the command hallucinations themselves—also influence compliance. Junginger¹⁰ reported that the presence of a delusional belief consistent with the command hallucination increases the likelihood of compliance. In fact, the identifiability of hallucinated voices

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“may be one aspect of a more systematized disorder of reality in which symptom-consistent behavior is likely to fit” (Junginger, p. 96).²⁰ Other researchers^{19, 21} have also noted that a patient’s interpretation of his or her command hallucinations are related to compliance. A logically consistent relationship between hallucination and delusion should increase compliance, because such patients would be more likely to interpret these perceptual experiences as congruent with their understanding of the world, just as familiar voices are more likely to be consistent with patients’ experience.

Whatever the underlying mechanism, it appears that the presence of a delusional belief consistent with the content of the hallucination increases the likelihood of compliance. Concerning the implication of this finding for assessing a patient’s risk of violent behavior, it is worth noting that prior research has shown the presence of delusions related to perceived threat or an overriding of one’s internal controls is associated with increased risk for violent behavior.²²⁻²⁴ These symptoms have been referred to in the literature as threat/control override or TCO symptoms. In a large national sample, Swanson and colleagues²⁵ found that persons who reported TCO symptoms were about twice as likely to engage in assaultive behavior as those with other psychotic symptoms and six times more likely to engage in such behaviors than those with no mental disorder. Those reporting TCO symptoms in combination with substance abuse were 8 to 10 times more likely to engage in violent behavior than persons with no disorder or symp-

oms. Similarly, Beck-Sander *et al.*¹⁹ reported that participants who believed that they were in control of themselves were less likely to comply with command hallucinations than participants who believed that the voices were omnipotent. These findings support and underscore the importance of assessing delusions when attempting to estimate the likelihood of compliance with command hallucinations, particularly those with violent content.

Implications for Risk Assessment

The extant literature clearly shows that not everyone who experiences a command hallucination will comply, nor is everyone who experiences such symptoms considered dangerous. However, command hallucinations are certainly within the appropriate scope of inquiry when conducting a risk assessment. When performing a mental status examination, a clinician will likely ask about psychotic symptom patterns. If there are indications of psychosis (e.g., hallucinations or delusions) or violent ideation, a specific inquiry about command hallucinations may be indicated (e.g., “Have you ever heard voices that talked to you about hurting people?”). The necessity of inquiring specifically about command hallucinations is highlighted by the results of Rogers *et al.*²⁶ These authors found that the clinical staff of an inpatient forensic assessment unit overlooked the presence of command hallucinations in 47.8 percent of their research sample.

If command hallucinations are or have been present, the clinician may want to

explore this phenomenon in more detail. First, it may be useful to note which situations and which other identifiable precipitants are associated with the patient's command hallucinations. Second, it may be relevant to ask about the content, frequency, and recency of these commands and to inquire about the individual's past experience with compliance (e.g., "Has he/she ever complied with commands in the past? What types of commands has he or she complied with in the past? Has he/she ever heard a command and not complied? What strategies do they use to resist compliance? When is it hardest to resist?"). Third, in some circumstances, it may be appropriate to consider the effects of context and environment on the individual's compliance. For example, people may be less likely to comply with "dangerous" commands while they are in a restrictive treatment setting, or the nature of the commands may change when people make a transition into a new environment. Fourth, it may be useful to know (1) whether the voice in the command hallucination is a familiar one and (2) whether there is a concurrent hallucination-related delusion, since these two factors have been empirically associated with increased compliance. The clinician can then use this information to estimate whether, how, and to what extent the presence of command hallucinations may be a risk factor for violence in a given individual.

In estimating the degree of risk associated with command hallucinations, clinicians should rely heavily on empirical knowledge—to the extent that it is available—to inform this decision. Informa-

tion concerning base rates of compliance and factors influencing compliance can be integrated with relevant history and clinical information to help understand the salience of these commands in an individual case and to improve the validity of risk assessments.

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