

# ASSOCIATION BETWEEN VIOLENT BEHAVIOR AND PSYCHOTIC RELAPSE IN SCHIZOPHRENIA: ONCE MORE THROUGH THE REVOLVING DOOR?

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## SUMMARY

The potential for violence in a number of persons with mental illnesses stimulates public fear and prevents general acceptance of persons with psychiatric disabilities.

Schizophrenia has been the diagnosis most often associated with violence as it has been taken as a paradigm of insanity, incompetence and dangerousness.

Clinicians' efforts to prevent violence through conventional external patient treatment are impeded by several situational variables and patients become trapped in a costly cycle of repeated institutional admissions (revolving door phenomenon) in the most restrictive settings, going through involuntary in-patient treatment.

The major hypothesis proposed in this review is that violence in schizophrenia can become a part of a self-perpetuating cycle, in which the combination of non-adherence to treatment and an inadequate management of illness from families and caregivers leads to violent behavior and deteriorated social relationships, finally resulting in institutional recidivism.

As some of the initial symptoms of the illness, such as irritability and agitation may not be detected by the patient and his/her family, these symptoms eventually can easily escalate into open hostility, and the accompanying behavior is frequently violent.

Disturbed moods secondary to psychotic symptoms, such as fear and anger apparently can also activate violent psychotic action. Accordingly, the path from the characteristics of the illness to violence leads to them through psychotic symptoms and lack of insight, and results in symptom-consistent violence.

When psychotic symptoms and violent behavior cannot be managed by caregivers, patients are brought to the attention of psychiatric services and frequently admitted to patient service. During admission for a psychotic episode, there are more violent incidents than later on in the disease. As patients respond to medication and hospital environment, violent incidents and psychotic symptoms decrease in frequency and severity.

After hospital discharge, patients may assume greater autonomy and control over several aspects of their daily lives. Nevertheless, this process may be hampered by familial reactions to the burden of living with a family member with schizophrenia. This burden

can also be exacerbated because many patients have a history of violent behavior and families may experience negative attitudes towards them.

In line with this, there is evidence of significant differences between the professionals' perception about symptoms and illness, and that of the patient and his/her family. Sometimes, these different conceptions may reflect a lack of awareness regarding illness and treatment that may lead to discontinue medication.

Medication suspension can lead to an eventual relapse which most obvious sign is the emergence of positive psychotic symptoms. Nevertheless if a patient has a past history of violent behavior, it is very likely that these behaviors will appear during relapse and it may be necessary to consider hospitalization.

Although treatment with antipsychotics may be useful when violence is secondary to psychotic symptoms, violence might be indirectly reduced through clinical programs aimed at increasing insight into illness and treatment. A psychoeducational strategy may improve antipsychotic treatment compliance by helping the patients to work through their ambivalence regarding antipsychotic medication. For families, a psychoeducation strategy can lead to a change in attitudes toward the disorder, as well as to promote problem-solving skills for violence.

The model presented here suggests that violence in schizophrenia is conditioned by several factors such as psychotic symptoms, medication non-compliance and lack of social support. The prevention of violent behavior in schizophrenia should include attention to other areas, such as the quality of the social environment surrounding the patient. For the "revolving door" patients, violence may be a key factor that complicates treatment.

Health professionals have the responsibility to work in partnership with patients and their families for the prevention of violence.

**Key words:** Schizophrenia, violence, revolving door.

## RESUMEN

La esquizofrenia ha sido el principal diagnóstico psiquiátrico asociado con la violencia. La prevención de la violencia a través del

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tratamiento ambulatorio se ha visto obstaculizada por diversas variables situacionales y muchos pacientes llegan a verse inmersos en un ciclo de continuas admisiones hospitalarias (fenómeno de la puerta revolvente).

La hipótesis central de la presente revisión es que la violencia en la esquizofrenia puede formar parte de un ciclo recurrente de hospitalizaciones psiquiátricas, en el que, combinados la falta de adhesión al tratamiento y el manejo inadecuado de la enfermedad por parte de los familiares, dan por resultado la manifestación del comportamiento violento.

Diversas investigaciones han mostrado que tanto los síntomas psicóticos, como las alteraciones del ánimo secundarias a su presencia y la falta de una conciencia de enfermedad, son las principales características de la esquizofrenia, asociadas con la manifestación de la violencia en dicho padecimiento.

Cuando los familiares no pueden manejar los síntomas psicóticos y el comportamiento violento del paciente, se busca la atención en un servicio especializado de psiquiatría, y con frecuencia, el paciente tiene que ser hospitalizado. La manifestación de conductas violentas ha sido considerada como una de las principales causas de hospitalización psiquiátrica.

Diversas investigaciones han documentado que los actos violentos se presentan con mayor frecuencia durante la admisión hospitalaria por un episodio psicótico que en otros momentos durante el curso del padecimiento. Asimismo, la hospitalización psiquiátrica por sí misma reduce la frecuencia e intensidad de la violencia, debido probablemente al tratamiento con antipsicóticos y al entorno restrictivo de las instalaciones.

Tras la alta hospitalaria, los pacientes viven un proceso de transición mediante el cual van asumiendo mayor autonomía y control sobre diversos aspectos de su vida cotidiana. Sin embargo, este proceso se puede ver obstaculizado por las reacciones familiares secundarias al desgaste físico y emocional de vivir con un familiar con esquizofrenia. Asimismo, este desgaste puede verse exacerbado debido al antecedente de violencia en muchos de estos pacientes.

Se ha descrito que la percepción que tienen los pacientes y sus familiares con respecto a los síntomas de la enfermedad difiere significativamente de la de los especialistas de la salud mental. A veces, estas diferencias se asocian con falta de discernimiento y conciencia sobre la enfermedad y con la necesidad de tratamiento médico, lo que a su vez puede llevar a la suspensión del mismo.

La suspensión del tratamiento farmacológico induce a una eventual recaída cuyos signos más evidentes son los síntomas psicóticos. No obstante, si un paciente tiene antecedentes de comportamiento violento, es muy probable que este comportamiento surja durante la recaída y que sea necesario considerar nuevamente la hospitalización.

En estos pacientes, en quienes la violencia tiene un importante papel en las hospitalizaciones recurrentes, es necesario considerar el establecimiento de programas clínicos, que incluyan la psicoeducación, dirigidos a incrementar la conciencia del paciente y de los familiares, sobre la enfermedad y la necesidad del tratamiento farmacológico.

El modelo presentado en esta revisión sugiere que la violencia en la esquizofrenia es una condición generada por diversos factores tales como los síntomas psicóticos, la falta de adherencia al tratamiento y el inadecuado apoyo social. La prevención de la conducta violenta en la esquizofrenia no sólo debe fundamentarse en el uso de antipsicóticos, ya que existen otras áreas en las que intervienen las características propias del individuo y su entorno social.

Los profesionales de la salud mental tienen la responsabilidad de trabajar en conjunto con los pacientes y sus familiares para prevenir la manifestación de conductas violentas. Es necesario

realizar futuros estudios dirigidos a evaluar la forma en la que los servicios de salud mental pueden ser más efectivos en la reducción y prevención de la violencia en la esquizofrenia.

**Palabras clave:** Esquizofrenia, violencia, puerta revolvente.

Violent behavior arises as an emotional reaction precipitated by stimuli that generate rage, or as a behavior deliberately aimed to cause physical damage to persons or properties (10). The potential for violence in a number of subjects with mental illnesses stimulates public fear and prevents general acceptance of those presenting psychiatric disabilities (30).

Conventional knowledge maintains that this perception is wrong and that mental illness is not a significant cause of violence (35). Nevertheless, with the advent of managed care in both public and private mental health systems, and with clinicians increasingly being held liable for the behavior of patients inadequately treated, the concerns about the risk of violence have increased (5, 27). Although it has been considered that subjects with certain diagnostic categories are more likely to commit violent acts, schizophrenia has been the diagnosis most often associated with violence (34) as it has always played a specific role in forensic psychiatry, serving as a paradigm of insanity, incompetence and dangerousness (23).

Although community-based mental health systems are effective for some patients, many schizophrenic individuals still derive little benefit from these standard interventions and become trapped in a costly cycle of repeated institutional admissions (revolving door phenomenon) (11). This is especially true for schizophrenic patients with a history of violence. Clinicians' efforts to prevent violence through conventional external patient treatment are impeded by several situational variables and these patients become frequent users of mental health services in the most restrictive settings, going through involuntary in-patient treatment (3).

In this perspective, it is not our intention to cover the entire area of violence, or violence and schizophrenia, but rather, to present a review as a modest contribution to understand and prevent violent behavior among people with schizophrenia.

## VIOLENCE AS PREDICTOR OF HOSPITAL READMISSION

A comprehensive model of the various effects on violence would be so complex as to defy interpretation. However, a limited model focused on the symptoms attributes and characteristics of the revolving door phenomenon described here might be useful not only as a descriptive device but also as a guide for identifying po-

tentially important areas for future research. This model is shown in Figure 1. The major hypothesis proposed here is that violence in schizophrenia can become a part of a self-perpetuating cycle, in which the combination of non-adherence to treatment and the inadequate management of illness on the part of caregivers leads to violent behavior and deteriorated social relationships, finally resulting in institutional recidivism.

This hypothesis is based mainly on studies that have revealed that the majority of schizophrenic patients who had committed violent acts had been psychotic at the time of the offence (32) and that the offence occurred in the period preceding hospitalization (2). During the initial phase of illness, neither the patient nor his/her social network may be aware of the symptoms (16), and some of them, such as irritability and agitation, eventually can easily escalate into open hostility, and the accompanying behavior is frequently violent (20, 24).

Several studies have found that family members or individuals known to the patients are particularly at risk of becoming the targets of the patient's violence (28). However, violence targeting family members is less likely to be reported to the police or the pertinent legal system (25). The factors that contribute to this can be suggested, but their relative importance is unclear. Violent behavior in these patients strongly affect community acceptance which impedes the social reintegration of the patient and restricts families abilities to make use of available social support (6, 8, 9). A second factor is the impact of being blamed by others. Tradition-

ally, parents have been blamed for causing schizophrenia through poor parenting, and although recent research suggests this concept may be changing (7), there are still those who would support the pathogenic parenting position (18).

Characteristics of illness also can have a direct effect on violence. Disturbed moods secondary to psychotic symptoms, such as fear and anger apparently can activate violent psychotic action. Accordingly, as shown in Figure 1, the path from characteristics of illness to violence leads through psychotic symptoms and results in symptom-consistent violence. Although violent behavior can be induced directly from psychotic symptoms, it is well known that not all the patients that are psychotic will behave violently. Rather, most patients experiencing hallucinations or delusions without insight into them would be expected to behave violently (1).

When psychotic symptoms and violent behavior cannot be managed by caregivers, patients are brought to the attention of psychiatric services and frequently are admitted to patient service. Violent behavior has been found to be a major determinant for hospitalization (12, 33), but does not always lead directly all schizophrenic patients to hospital admission (15). During admission due to psychotic episode, there are more violent incidents than later on among the disease. Psychiatric hospitalization has a direct suppressing effect on violence probably due to antipsychotic treatment and to the restrictive environment that provides fewer opportunities for violence (19). As patients respond to medication and hospital environment, violent incidents and

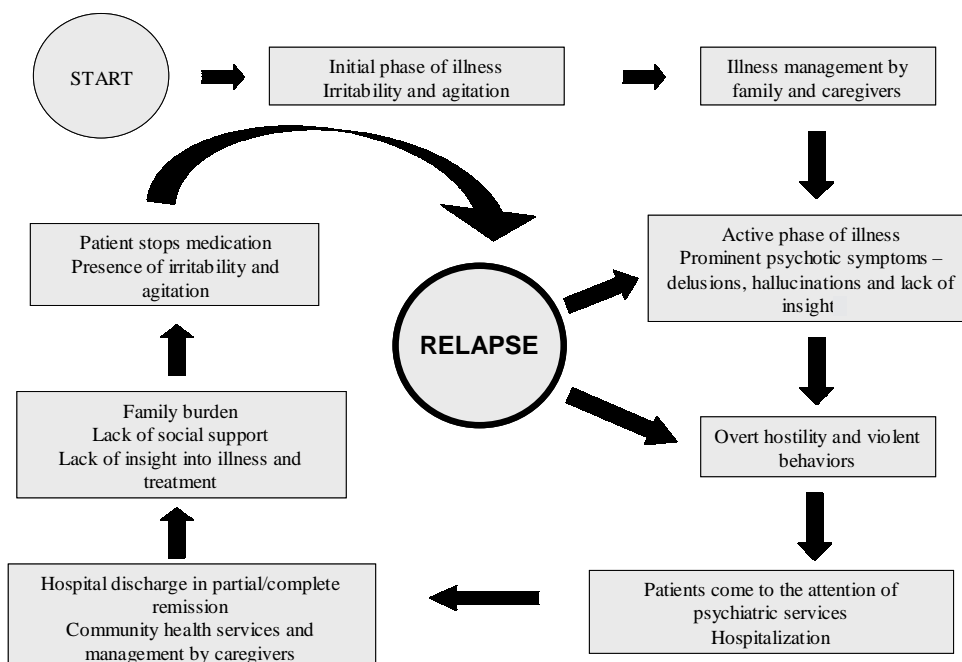


Fig. 1. Violence as predictor of hospital readmission.

psychotic symptom decrease in frequency and severity (1, 29, 30). The fact that violent behavior declines strongly during hospitalization suggests that violence in schizophrenia is a product not only of the interaction between the characteristics of a person, illness features and the opportunities provided by an environment, but also of the adaptation of the psychotic experience to a particular environment (19).

The first several weeks after hospital discharge represent a critical period in the course of recovery from an acute psychotic episode. While recuperating, though still symptomatic, patients make the transition from inpatient to outpatient care, where they may assume greater autonomy and control over several aspects of their daily lives (26). Nevertheless, this process may be hampered by the disabilities conferred by the illness itself and the patient's relatives and caregivers may begin to blame the patient for his or her deviant behavior (8). On the other hand, familial reactions to the burden of living with a family member suffering from schizophrenia, which may include worry about the present and future, stress, anxiety and resentment, have the potential to disrupt profoundly both the lives of the individual with the illness as well as that of their families (22). This burden can also be exacerbated because many patients had a history of violent behavior (8) and families may experience negative attitudes toward the ill member (4).

These attitudes and reactions appear to be understandable, particularly as a response to violence and other unpredictable behavior that the patient may exhibit. When families seek assistance from mental health services for these situations, it is unclear how helpful or reliable these contacts are. Some studies have found evidence of discontent with professional services (14) or significant differences between professional and familial perceptions of the burden caused by the disorders (4, 8, 13, 21). In addition, schizophrenic patients may disagree with their doctors as to their symptoms and illness not only because they are ill, but also because they have a different concept of their experience (17). Therefore, these different conceptions may reflect the lack of awareness into illness and treatment.

As shown in Figure 1, lack of insight into illness and treatment by patients and their families, in conjunction with the widespread community misunderstanding about schizophrenia and its treatment (13) and the negative view of professional support from mental health services and staff may lead to discontinue medication. Such medication suspension complicates the treatment of all patients with schizophrenia and leads to an eventual relapse which most obvious sign is the emergence of positive psychotic symptoms (31). Clinical relapse is highly individualized and may initially appear in more subtle

ways than the easily recognizable positive symptoms. The course of action taken when a patient relapses will largely depend on the severity of the relapse. Nevertheless if a patient has a past history of violent behavior, it is very likely that these behaviors appear during the relapse and it may be necessary to consider hospitalization. Following this process and as shown in Figure 1, schizophrenic patients who are likely to exhibit violent behavior, may become trapped in a costly cycle of repeated institutional admissions.

## MAIN CONCLUSIONS AND FUTURE PERSPECTIVES

There is an increasing acceptance of findings indicating that violence is a common feature in patients with schizophrenia. We surmise that the cyclical pattern described in this paper may be produced in different ways for different patients, with varying implications for violence prevention strategies.

For some patients, the key may be the content and themes of psychotic symptoms, which may often imply and even dictate a specific course of violent action. For this cases, treatment with antipsychotics may be useful when violence is secondary to psychotic symptoms (1). Nevertheless, the problem of treatment compliance arises: patients who have difficulties recognizing their own symptoms may be less aware of their ongoing need for maintenance treatment and therefore less appreciative of the benefits of antipsychotic medications. This may increase the risk of relapse and rehospitalization through lack of compliance. When treatment is applied, violence might be indirectly reduced through clinical programs aimed at increasing insight into illness and treatment. A psychoeducational strategy may improve antipsychotic treatment compliance by helping the patients to work out their ambivalence about antipsychotic medication by asking inductive questions, reflecting back responses, providing summary statements, examining the pros and cons of medication compliance, and selectively reinforcing adaptive attitudes (26).

On the other hand, violent behavior in schizophrenia may erode reliable social and familial relationships. The relationship with the patient may be characterized by conflict and hostility and can be considered as extremely burdensome. Behaviors that disrupt family functioning (e.g., intense irritability, violence) involve rejection of help (e.g., refusing medication) (22) and family members may oppose or do not support some aspect of their relative's psychiatric treatment, which in turn may promote relapses and hospitalizations as well as an exacerbation of violent outbursts.

The core element of all family interventions is education. Providing didactic information about the disorder,

examining members' affective reactions to this information, addressing their causal attributions and teaching new communication and problem-solving skills for violence may lead to decreases in reciprocal patterns of criticism or blame (22). This can lead to a change in the negative attitudes toward the disorder and its management and relatives may be more available to help the patient during the long-term psychiatric management, encouraging treatment compliance (31).

The model presented here suggests that violence in schizophrenia is conditioned by several factors such as psychotic symptoms, medication non-compliance and lack of social support. We imply that the prevention of violent behavior in schizophrenia may not be amenable to psychiatric treatment per se, without attending other complex problems, such as the quality of the social environment surrounding the patient. Indeed, for the "revolving door" patients, violence may be a key factor that limits community tenure and complicates treatment.

Mental health systems face new mandates to provide effective services for these patients while health professionals have the responsibility to work in partnership with patients and their families. Building alliances should be beneficial for the prevention of violence in patients with schizophrenia, as these can enable patients and their families to break down the stigma of schizophrenia and allow them to gain a better understanding of the disorder, as well as of the medical interventions available.

It should be noted that the proposed model is not representative for all patients with schizophrenia, although our speculations suggest a potentially productive area for research. Future research must continue to address how mental health services can be more effective in reducing and preventing violence, given the array of its causes and precipitating conditions, and the co-occurrence of psychotic symptoms and adverse social conditions.

## REFERENCIAS

1. ARANGO C, CALCEDO BA, GONZALEZ S, CALCEDO OA: Violence in inpatients with schizophrenia: a prospective study. *Schizophr Bull*, 25:493-503, 1999.
2. BINDER R, MCNIEL D: Effects of diagnosis and context on dangerousness. *Am J Psychiatry*, 145:728-732, 1988.
3. BORUM R, SWARTZ M, SWANSON J: Assessing and managing violence risk in clinical practice. *J Prac Psychiatr Behav Health*, 2:205-215, 1996.
4. BUCHANAN A: Social support and schizophrenia: a review of the literature. *Arch Psychiatr Nurs*, 9:68-76, 1995.
5. CUFFEL B: Disruptive behaviour and the determinants of costs in the public mental health system. *Psychiatr Serv*, 48:1562-1566, 1997.
6. EVERT H, HARVEY C, TRAUER T, HERRMAN H: The relationship between social networks and occupational and

self-care functioning in people with psychosis. *Soc Psychiatry Psychiatr Epidemiol*, 38:180-188, 2003.

7. FADDEN G: Family intervention. En: Brooker C, Repper J (eds), *Serious Mental Health Problems in the Community. Policy, Practice and Research*. Balliere-Tindall, 159-183, London, 1998.
8. FERRITER M, HUBAND N: Experiences of parents with a son or daughter suffering from schizophrenia. *J Psychiatr Ment Health Nurs*, 10:552-560, 2003.
9. FRESAN A, APIQUIAN R, ULLOA R, LOYZAGA C et al.: Ambiente familiar y psicoeducación en el primer episodio de esquizofrenia. Resultados preliminares. *Salud Mental*, 24:36-40, 2001.
10. FRESAN A, DE LA FUENTE-SANDOVAL C, JUAREZ F, LOYZAGA C et al.: Sociodemographic features related to violent behavior in schizophrenia. *Actas Esp Psiquiatr*, 33:188-193, 2005.
11. GELLER J: A report on the «worst» state hospital recidivists in the US. *Hosp Community Psychiatry*, 43:904-908, 1992.
12. HAYWOOD T, KRAVITZ H, GROSSMAN L, CAVANAUGH JJ et al.: Predicting the «revolving door» phenomenon among patients with schizophrenic, schizoaffective and affective disorders. *Am J Psychiatry*, 152:856-861, 1995.
13. HOCKING B: Reducing mental illness stigma and discrimination-everybody's business. *Med J Aust*, 178:547-548, 2003.
14. HOLDEN D, LEWINE R: How families evaluate mental health professionals, resources and effect of illness. *Schizophr Bull*, 4:626-633, 1982.
15. HUMPHREYS M, JOHNSTONE E, MACMILLAN J, TAYLOR P: Dangerous behaviour preceding first admissions for schizophrenia. *Br J Psychiatry*, 161:501-505, 1992.
16. JOHNS L, VAN OS J: The continuity of psychotic experiences in the general population. *Clin Psychol Rev*, 21:1125-1141, 2001.
17. JOHNSON S, ORRELL M: Insight and psychosis. A social perspective. *Psychol Med*, 25:515-520, 1995.
18. JOHNSTONE L: Do families cause schizophrenia? Revisiting a taboo subject. En: Newnes C, Holmes G, Dunn C (eds). *This is Madness. A Critical Look at Psychiatry and the Future of Mental Health Services*. Llangarron, PCCS Books, 119-134, 1999.
19. JUNGINGER J: Psychosis and violence: the case for a content analysis of psychotic experience. *Schizophr Bull*, 22:91-103, 1996.
20. KRAKOWSKI M, CZOBOR P, CHOU J: Course of violence in patients with schizophrenia: relationship to clinical symptoms. *Schizophr Bull*, 25:505-517, 1999.
21. MACINNES D: Relatives and informal caregivers. En Chaloner CU (ed), *Forensic Mental Health Nursing. Current Approaches*. Blackwell Science Ltd, 208-231, Oxford, 2000.
22. MIKLOWITZ D: The role of family systems in severe and recurrent psychiatric disorders: a developmental psychopathology view. *Dev Psychopathol*, 16:667-688, 2004.
23. NEDOPIL N: Violence of psychotic patients: how much responsibility can be attributed? *Int J Law Psychiatry*, 20:243-247, 1997.
24. NESTOR P, HAYCOCK J, DOIRON S, KELLY J, KELLY D: Lethal violence and psychosis: a clinical profile. *Bull Am Acad Psychiatry Law*, 23:331-41, 1995.
25. NORDSTRÖM A, KULLGREN A: Victim relations and victim gender in violent crimes committed by offenders with schizophrenia. *Soc Psychiatry Psychiatr Epidemiol*, 38:326-330, 2003.
26. OLFSON M, MECHANIC D, HANSELL S, BOYER C et al.: Predicting medication noncompliance after hospital discharge among patients with schizophrenia. *Psychiatr Serv*, 51:216-222, 2000.
27. SIMON R: Psychiatrists' duties in discharging sicker and potentially violent inpatients in the managed care era. *Psychiatr Serv*, 49:62-67, 1998.

28. STEADMAN H: Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Arch Gen Psychiatry*, 55:1-9, 1998.
29. SWANSON J, BORUM R, SWARTZ M, HIDAY V: Violent behavior preceding hospitalization among persons with severe mental illness. *Law Hum Behav*, 23:185-204, 1999.
30. SWANSON J, SWARTS M, BORUM R, HIDAY V et al.: Involuntary out-patient commitment and reduction of violent behavior in persons with severe mental illness. *Br J Psychiatry*, 176:324-331, 2000.
31. TAYLOR M, CHAUDHRY I, CROSS M: Towards consensus in the long-term management of relapse prevention in schizophrenia. *Hum Psychopharmacol Clin Exp*, 20:175-181, 2005.
32. TAYLOR P: When symptoms of psychosis drive serious violence. *Soc Psychiatry Psychiatr Epidemiol*, 33:S47-s54, 1998.
33. WALLACE C, MULLEN P, BURGESS P, PALMER S et al.: Serious criminal offending and mental disorder. Case linkage study. *Br J Psychiatry*, 172:477-84, 1998.
34. WALSH E, BUCHANAN A, FAHY T: Violence and schizophrenia: examining the evidence. *Br J Psychiatry*, 180:490-495, 2002.
35. WESSELY S, TAYLOR P: Madness and crime: criminology or psychiatry? *Crim Behav Ment Health*, 1:193-228, 1991.

**RESPUESTAS DE LA SECCION  
AVANCES EN LA PSIQUIATRIA  
Autoevaluación**

- 1. A**
- 2. A**
- 3. B**
- 4. D**
- 5. A**
- 6. D**
- 7. C**
- 8. C**
- 9. D**
- 10. B**
- 11. A**
- 12. C**
- 13. B**
- 14. B**
- 15. B**
- 16. D**
- 17. A**
- 18. C**