

Are Psychotropic Medications Effective in Reducing Problem Behaviors?

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Summary:

This study questions the ability of psychotropic medications to reduce the frequency of severe problem behaviors in a number of students who were on at least one psychotropic medication upon their admission to the Judge Rotenberg Center. Data will be presented in the form of standard celeration charts showing psychotropic medication reduction/elimination and correlated behavioral effects.

Introduction:

The Judge Rotenberg Educational Center (JRC) operates day and residential programs for children and adults with behavior problems, including conduct disorders, emotional problems, brain injury or psychosis, autism and developmental disabilities. The basic approach taken in all of JRC's programs is the use of behavioral psychology and its various technological applications, such as behavioral education, programmed instruction, precision teaching, behavior modification, behavior therapy and behavioral counseling. From JRC's inception, its basic philosophy has always included the following principles: a willingness to accept students with the most difficult behavioral problems and a refusal to reject or expel any student because of the difficulty of his or her presenting behaviors; the use of a highly structured, consistent application of behavioral psychology to both the education and treatment of its students; a minimization of the use of psychotropic medication; and the use of the most effective behavioral education and treatment procedures available.

As of late, the use of psychotropic medication in children and adolescents with intellectual disability or behavioral disorders has come under increased scrutiny as more and more evidence suggests such off label use to be contraindicated in the treatment of behavioral issues within this population.

- Brylewski, J, & Duggan, L (1999). Antipsychotic medication for challenging behaviour in people with intellectual disability: A systematic review of randomized control trails. *Journal of Intellectual Disability research*. 43 part 5, 360-371.
- Yoo, J.H., Williams, D.C., Napolitano, D.A., Peyton, R.T., Baer, D.M., & Schroeder, S.R. (2003). Rate-decreasing effects of the atypical neuroleptic risperidone attenuated by conditions of reinforcement in a woman with mental retardation. 36, 245-248.
- Levitas, A, Turk, J, Bramble, D, & Hurley, A (2008). Anti-Psychotics for aggression unrelated to a psychotic diagnosis. *Mental Health Aspects of Developmental Disabilities*, 11, 65-68.

At JRC, we try to eliminate or minimize the use of psychotropic medication; however, we do employ it, as an additional component of the student's total treatment program, when objective behavior data shows that it is needed to maximize treatment effectiveness. JRC is designed and staffed to provide a highly structured, intensive behavioral treatment program for severe behavior disorders. JRC has found that properly designed behavioral treatment is the most effective treatment available for behavior disorders in most cases. The treatment carries no risk of serious side effects. JRC's behavioral treatment is often a more effective and safer alternative to treating behavior disorders with psychotropic medications. The use of psychotropic medication has many problems, including these: the serious and disabling physical side effects, such as permanent damage to the nervous system; impairment of cognitive functioning which can diminish learning ability; lack of reliable evidence of psychotropic medications' effectiveness in treating behavior disorders; and psychotropic medication's inability to be targeted at specific behaviors.

Method:

The Chart:

Each day we record the total number of occurrences of each problem behavior of each student by means of a proprietary charting program that JRC has developed. This unique networked charting software enables each student and their treatment team to monitor objectively the student's academic and behavioral progress. This software displays the daily, weekly, monthly and yearly frequencies for each of the separate behaviors being treated, such as Aggressive Behaviors, Health Dangerous Behaviors, Destructive Behaviors, etc. It also allows the user to view groupings of behaviors such as Total Inappropriate Behaviors or Total Interfering Behaviors. The charts display not only behavior frequencies, but also other dimensions of interest such as the student's weight, the frequency with which any restraint is used, the number of contracts passed etc. These charts enable the team to see how well the student is doing at a glance and to detect any upward or downward trends in the behaviors that may be taking place. This allows for frequent and immediate evaluation of the effectiveness of each change that is made in a student's treatment program in an objective fashion, so that corrections and improvements can be made quickly. It also enables any sign of regression to be picked up at once and responded to immediately with appropriate changes in the student's educational or treatment program.

Results:

- **Figure 1-Student E-Total Health Dangerous Behavior**

This chart shows the weekly total of Health Dangerous behaviors for one of our students during the 18 month period from April 25, 2004 through October 16, 2005. The chart shows that from April 25, 2004 to August 22, 2004, the behavior varied from 47/week to

WEEKLY CHART

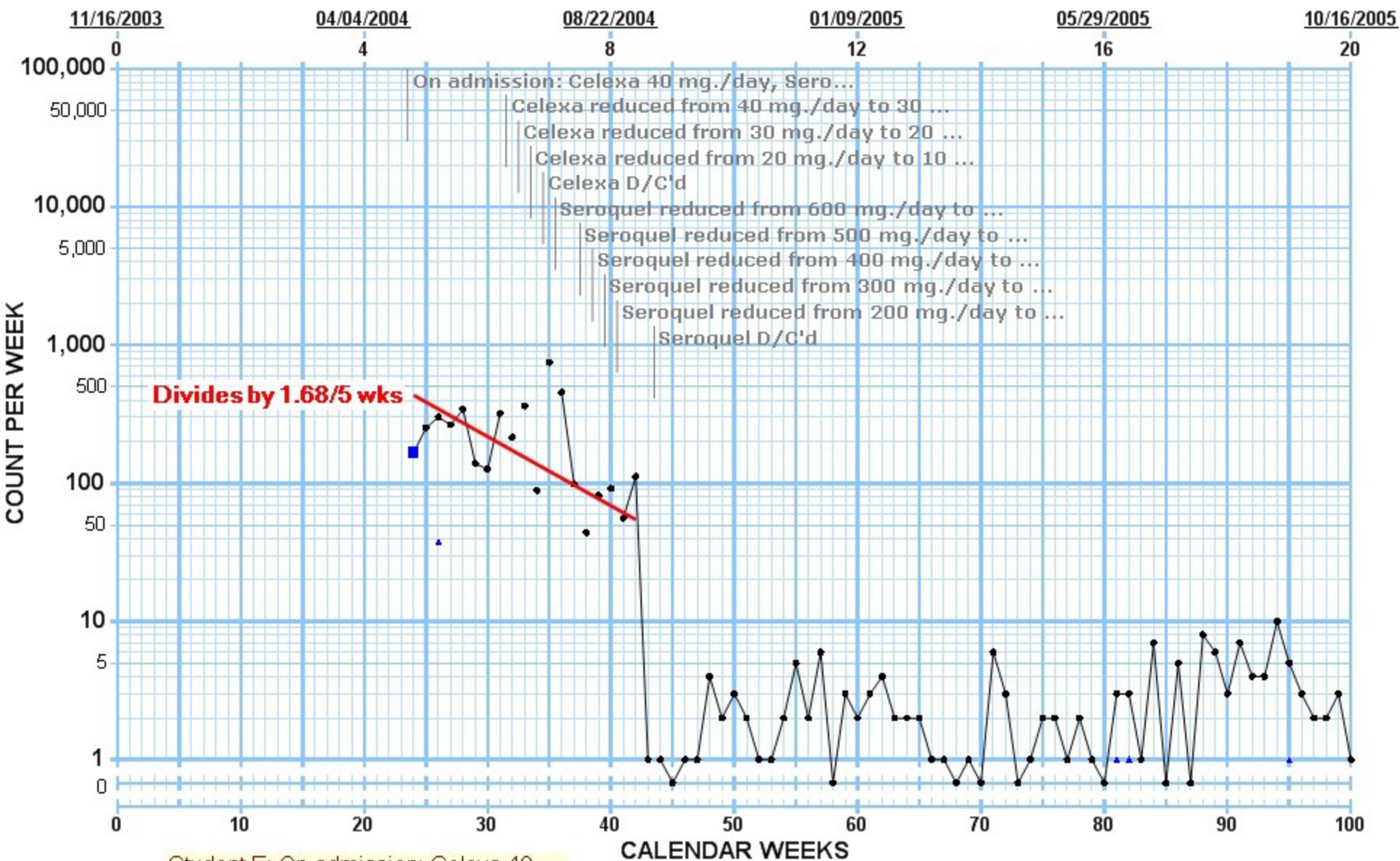


Figure 1

Total Health Dangerous Behavior

ITEM MEASURED

Health Dangerous 1, Health Dangerous 2, Health Dangerous Inap. U/D

COMPONENTS

over 700/week and showed a gradual decrease (the frequency divided by a factor of 1.68 from week to week) as the psychotropic medications were tapered. Following the discontinuation of medication in this student's program there is a significant deceleration in the frequency of health dangerous behavior. The behavior remained at these low levels during the rest of the period shown on the chart.

- **Figure 2-Student E- Total Aggressive Behavior**

This chart shows the weekly total of Aggressive behaviors for one of our students during the 18 month period from April 25, 2004 through October 16, 2005. The chart shows that from April 25, 2004 to August 22, 2004, the behavior varied from 3/week to 700/week and showed a gradual decrease (the frequency divided by a factor of 1.80 from week to week) as the psychotropic medications were tapered. Following the discontinuation of medication in this student's program there is a significant deceleration in the frequency of aggressive behavior. The behavior remained at these low levels during the rest of the period shown on the chart.

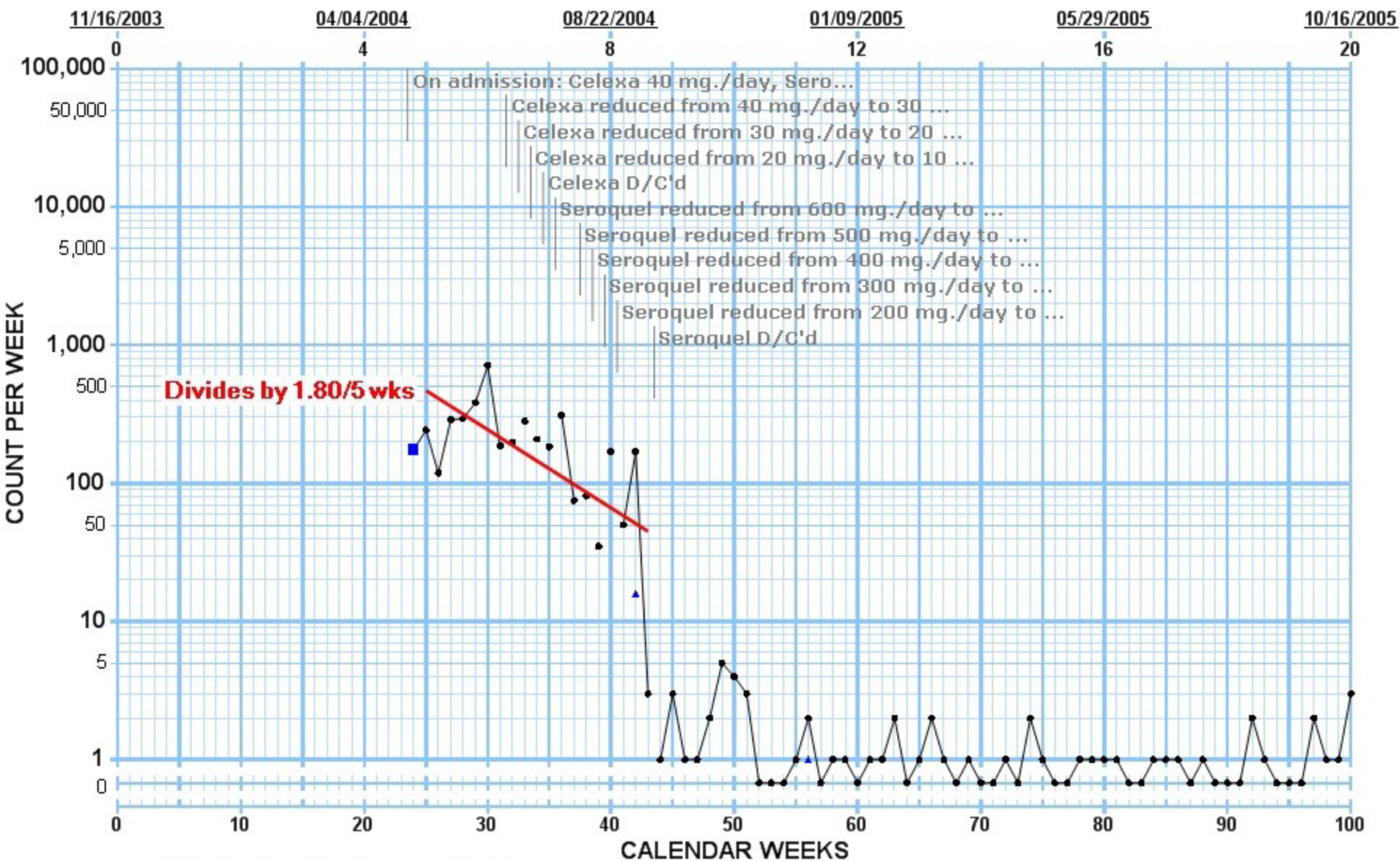
- **Figure 3-Student F-Total Aggressive Behavior**

This chart shows the weekly total of Aggressive behaviors for one of our students during the 19 month period from May 29, 2005 through December 10, 2006. The chart shows that from May 29, 2005 to October 2, 2005, the behavior varied from 4/week to over 150/week and showed a gradual decrease (the frequency divided by a factor of 1.06 from week to week) as the psychotropic medications were tapered. Following the discontinuation of medication in this student's program there is a significant deceleration in the frequency of aggressive behavior. The behavior remained at these low levels during the rest of the period shown on the chart.

- **Figure 4-Student F-Total Major Disruptive Behavior**

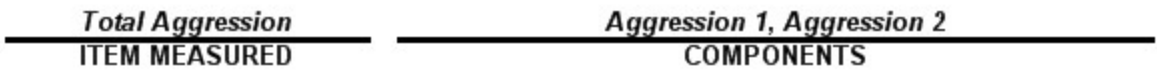
This chart shows the weekly total of Major Disruptive behaviors for one of our students during the 19 month period from May 29, 2005 through December 10, 2006. The chart shows that from May 29, 2005 to October 2, 2005, the behavior varied from 35/week to 650/week and showed a gradual decrease (the frequency divided by a factor of 1.31 from week to week) as the psychotropic medications were tapered. Following the discontinuation of medication in this student's program there is some increase in major disruptive behaviors due to multiple unrelated variables. However through the use of a highly structured, consistent application of behavioral psychology we were successful in decelerating the total frequency of this problematic behavior. The behavior remained at these low levels during the rest of the period shown on the chart.

WEEKLY CHART

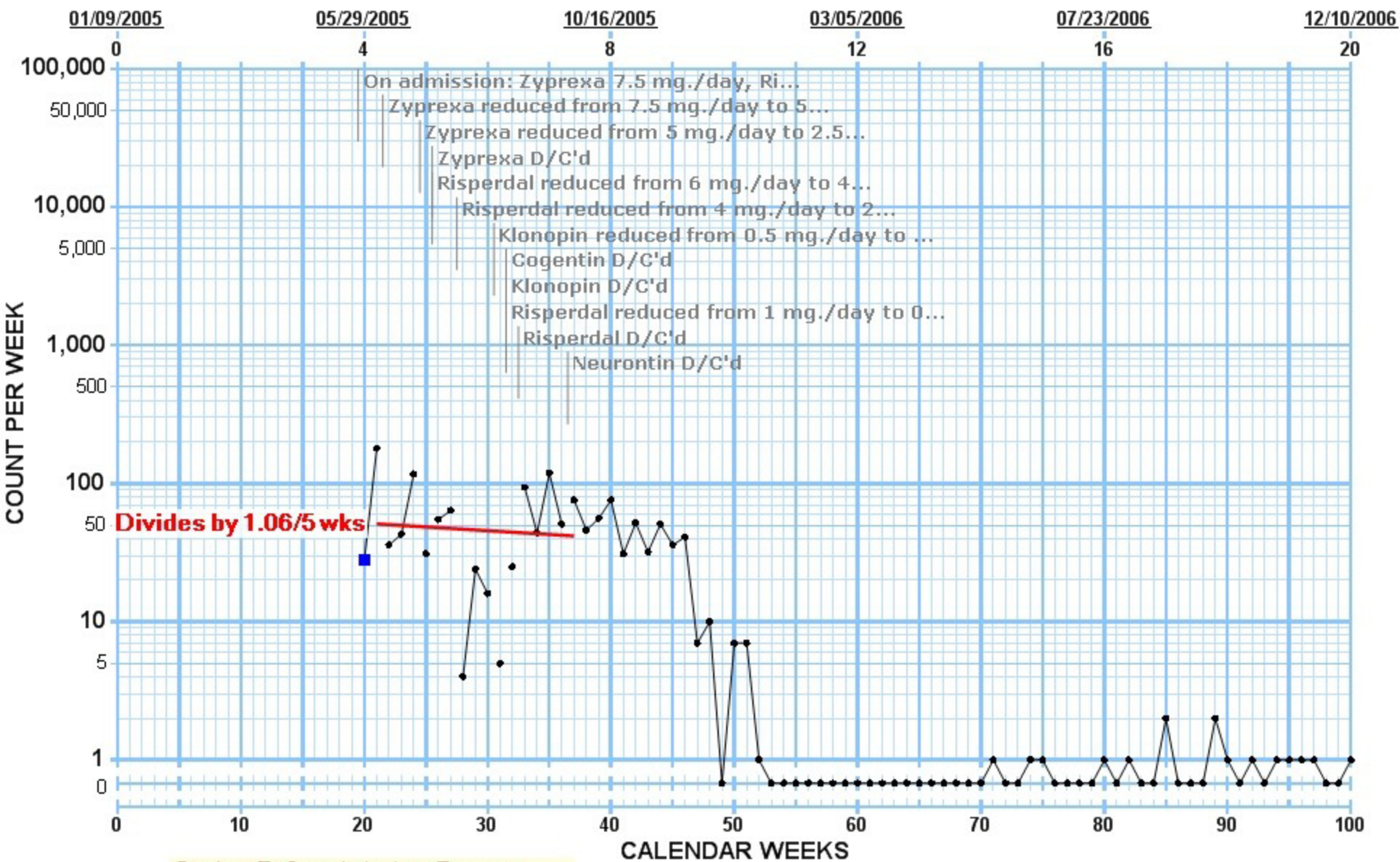


Student E: On admission: Celexa 40 mg/day, Seroquel 600 mg/day.

Figure 2

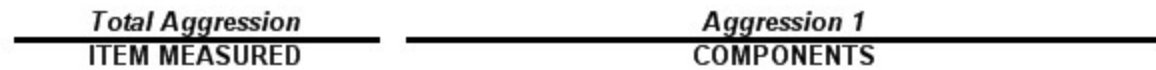


WEEKLY CHART

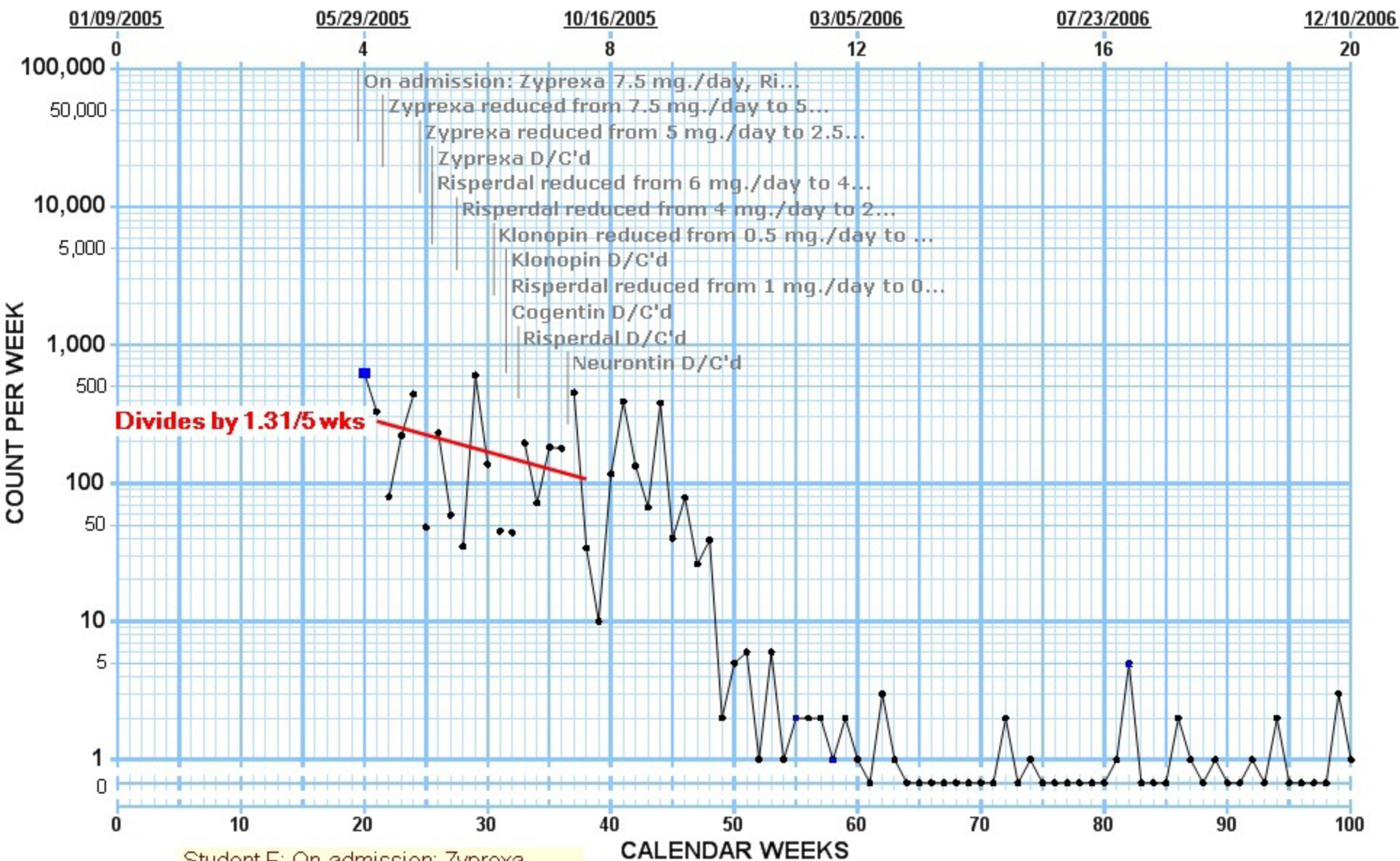


Student F: On admission: Zyprexa 7.5 mg/day, Risperdal 6 mg/day, Neurontin 1800 mg/day, Klonopin 1 mg/day, Ativan 1.5 mg/day, Cogentin

Figure 3



WEEKLY CHART



Student F: On admission: Zyprexa 7.5 mg/day, Risperdal 6 mg/day, Neurontin 1800 mg/day, Klonopin 1 mg/day, Ativan 1.5 mg/day, Cogentin

Total Major Disruptive Behavior
ITEM MEASURED

Major Disruptive 1, Major Disruptive 2
COMPONENTS

Figure 4

- **Figure 5-Student G-Total Aggressive Behavior**

This chart shows the weekly total of aggressive behaviors for one of our students during the six month period from October 06, 2007 through May 11, 2008. The chart shows that from October 06, 2007 to February 24, 2008, the behavior varied from 0/week to 28/week and showed a gradual decrease (the frequency divided by a factor of 1.35 from week to week) as the psychotropic medications were tapered. Following the discontinuation of medication in this student's program there is a significant deceleration in the frequency of aggressive behavior. The behavior remained at these low levels during the rest of the period shown on the chart.

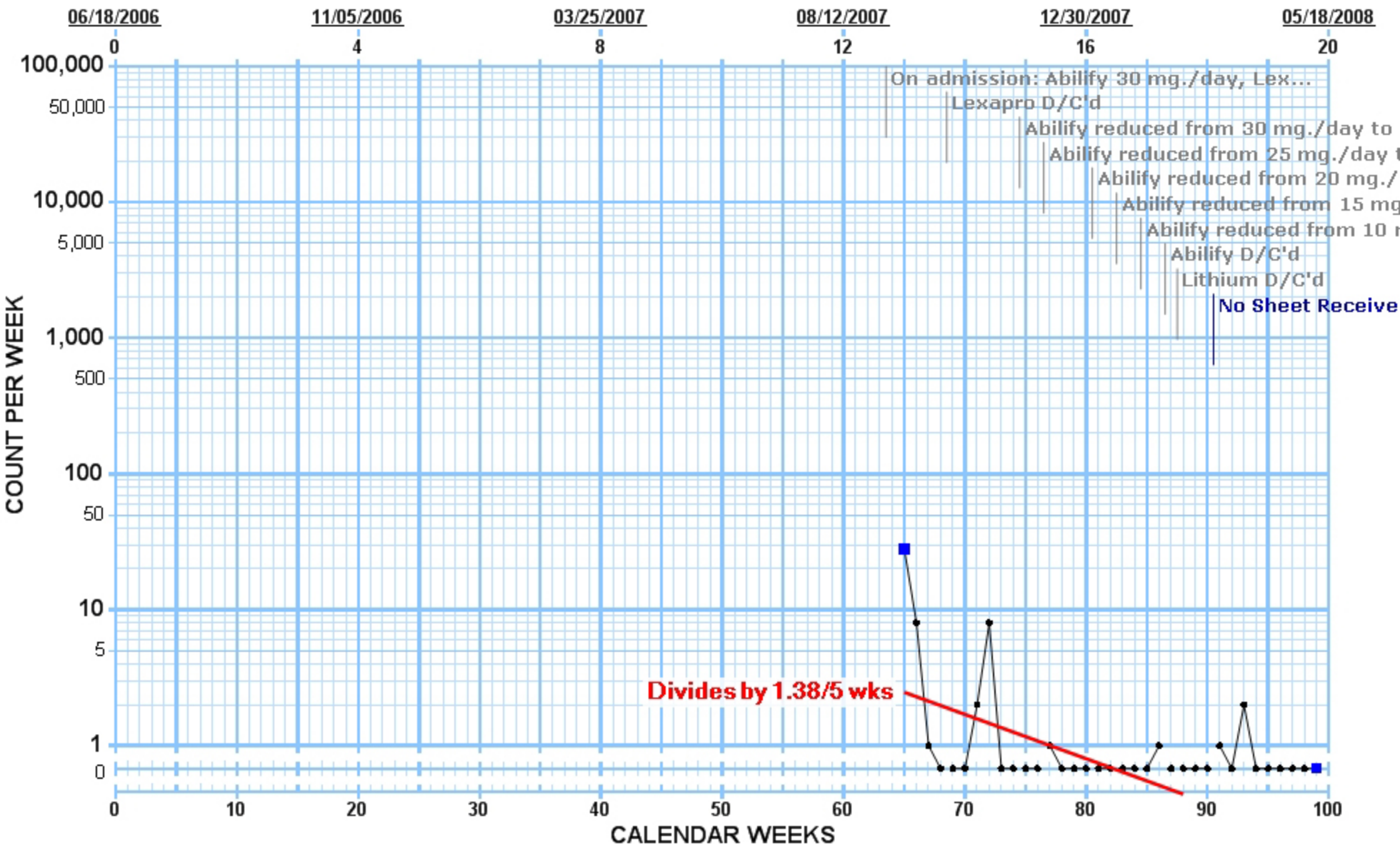
- **Figure 6-Student G-Total Health Dangerous Behavior**

This chart shows the weekly total of health dangerous behaviors for one of our students during the six month period from October 06, 2007 through May 11, 2008. The chart shows that from October 06, 2007 to February 24, 2008, the behavior varied from 0/week to 12/week and showed a gradual decrease (the frequency divided by a factor of 1.31 from week to week) as the psychotropic medications were tapered. Following the discontinuation of medication in this student's program there is a significant deceleration in the frequency of health dangerous behavior. The behavior remained at these low levels during the rest of the period shown on the chart.

Discussion:

The six charts presented here are representative of typical behavioral improvements observed within JRC's student body following the elimination of psychotropic medications. With consistent application of behavioral principals and salient programming, students are better able to learn to control their behavior without becoming dependant on harmful medications that were not designed for use with this population. Collateral effects of tapering medications, per a psychiatrist's order and supervision, include benefits such as loss of weight that had been gained due to the medications; decreased lethargy and increased alertness and ability to focus on academics, social skills development, and friendships has also been noted. This in turn leads to increased positive self esteem, self-reliance and increased participation in social activities and improved family relationships. The decreased aggression and agitation enable students to gain self control over their behaviors. Increased, academic productivity and verbal ability has also been a noted commonality for students who are tapered off of medications.

WEEKLY CHART



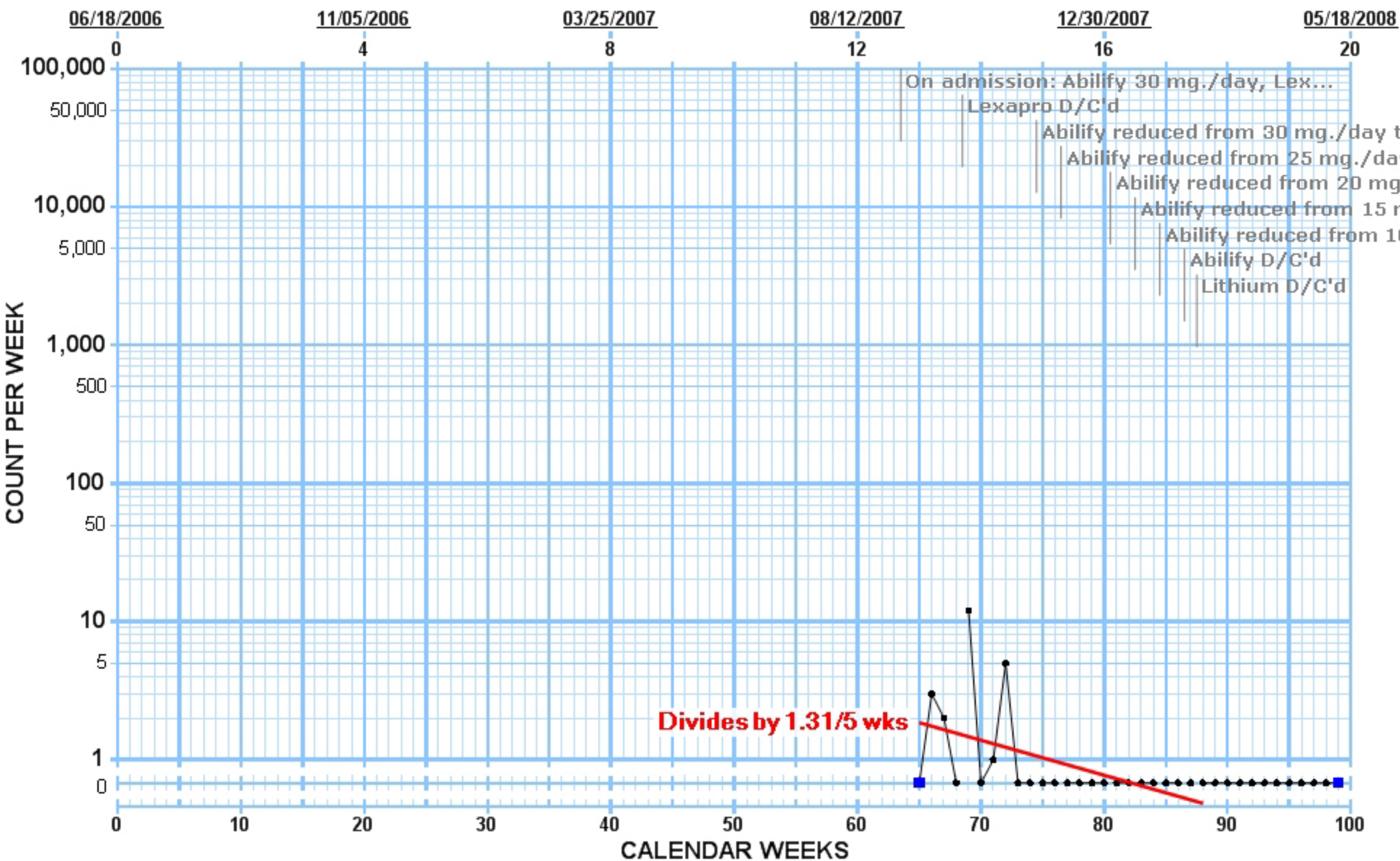
Student G on admission: Abilify 30 mg./day, Lexapro 10 mg./day, and Lithium 900 mg./day

Figure 5

Total Aggression
ITEM MEASURED

Aggression 1
COMPONENTS

WEEKLY CHART



Student G on admission: Abilify 30 mg./day, Lexapro 10 mg./day, and Lithium 900 mg./day

Total Health Dangerous Behavior
ITEM MEASURED

Health Dangerous 1
COMPONENTS

Figure 6