

Seven Case Studies of Individuals Expelled from Positive-Only Programs

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Abstract

In the debate over aversives a little-known but significant fact is often overlooked: programs that restrict themselves to positive-only treatment procedures sometimes expel individuals with severe behaviors when their behaviors become too difficult to handle. We review seven such cases of individuals with severe behavior problems who were expelled from state-of-the-art, positive-only programs and describe what happened to them when they were enrolled in a program that was able to supplement its positive-only procedures with contingent skin-shock when necessary.

Keywords: severe behavior, skin-shock, aversives, positive behavior support

Many problem behaviors of special needs individuals can be satisfactorily treated with "positive-only" behavioral treatment procedures. By "positive-only" we mean behavioral procedures that do not include physical aversives. Support for the effectiveness of positive-only procedures in treating many individuals can be found in a comprehensive review by Carr et al. (1999). They showed that in 50% of the studies that qualified for their review, the behaviors were successfully treated (using a standard of achieving a 90% reduction from baseline) with positive-only procedures, and that this figure rose to 60% when the cases reviewed were limited to those in which a functional analysis was performed.

Despite the fact that 40-50% of the cases in the Carr et al. (1999) report were not effectively treated, proponents of positive-only programming continue to assert that *all* severe problem behaviors can be managed successfully with positive-only procedures. For example, the TASH presents the following information on their website, "Positive strategies for changing behavior work equally rapidly, work with behaviors that are equally severe, and are at least as effective as strategies that are aversive or coercive in nature." (TASH, n.d.) The Standards of Practice of the Association for Positive Behavior Support, as displayed on the Association's web site as of November 2007, stated, "Positive strategies are effective in addressing the most challenging behavior." (APBS, 2007)

Foxx (2005) made two important points in response to these assertions: (1) in many of the papers that claim to report successful treatment with positive-only procedures, the behaviors were not very severe; and (2) in at least one paper, the author failed to disclose the significant role that psychotropic drugs played in the result.

The present paper presents a third point relating to the assertion that positive-only treatment can effectively treat all behavior problems, including the most severe ones: *when programs using positive-only procedures encounter individuals with really difficult-to-treat behaviors, they sometimes reject or expel them.* It is important to expose this fact because otherwise both lay and professional people will be misled by such assertions concerning the effectiveness of positive-only treatment.

This paper presents seven brief case histories of individuals who were expelled by behaviorally-sophisticated, positive-only programs when their behaviors became too difficult to manage. All seven were subsequently admitted to the Judge Rotenberg Educational Center (JRC), a program that is able to supplement positive-only procedures with a contingent skin-shock aversive when required. For a

description of the treatment procedures employed at JRC, see Israel, Blenkush, von Heyn, and Rivera (2008).

The positive-only programs that expelled the seven individuals discussed below, are all well-regarded schools in which any parent would be fortunate to be able to enroll his or her special needs child. Several of them use state-of-the-art behavioral procedures, employ skilled behavior analysts, and have had the benefit of nationally-known consultants in behavioral programming.

All information and quotations provided below have been taken from referral documents provided to JRC as part of the normal enrollment process for each of the individuals involved. In each case, the parents of these individuals have granted permission to JRC to use their child's information in this paper. The individuals whose data are displayed will be referred to as Students 1, 2, 3, etc. and the schools as School A, B, C, etc.

Student 1

Between the ages of 7 and 15 Student 1 was a resident at School A, a well-regarded behavioral special needs program that uses positive-only procedures. While Student 1 attended School A, his aggressive behaviors were described in his 2005 Discharge Summary as "quite intense and non-redirectable," and included "head directed punches, head butts, hair pulling, kicking, grabbing and biting." Student 1's aggression and self-abuse were so frequent that he had to be restrained "more than 70" times per week and each restraint required up to five teachers. His self-injurious behaviors included "body hits to the environment, head hits to wall and floor, body punches, face or head hits, self-bites" and hand contortions (intense wringing of hands and fingers). These behaviors caused "bruises, scratches, swelling of joints, cuts to forehead caused by intense head-to-floors (while wearing a protective helmet)...[and] fractured bones in his hands on two occasions." Property destruction included throwing objects, ripping materials, turning over furniture, and throwing large heavy objects. His aggressive behaviors, such as hitting his mother while she was driving, prevented him from having any home visits and curtailed community outings from School A.

School A tried many "positive-only" treatment approaches without success. They gave Student 1 rewards of small snacks, breaks, and preferred activities throughout the day contingent on appropriate behaviors or on the completion of certain tasks. They taught Student 1 functional communication responses, in which he used language to request being alone, to get teacher attention, or to escape demands. They tried using restraint as a positive reinforcers for desired behaviors. They provided Student 1 with periods of no demands and periods of high-rate demands. At one point Student 1 received 1-1 staffing during all waking hours. School A made use of internationally-recognized experts in the behavioral treatment of severe aggression to help design Student 1's positive-only program. In addition, School A tried Student 1 on psychiatric medications such as Risperdal, Trileptal, and Seroquel. None of these steps were sufficiently effective.

In March, 2005, School A expelled Student 1. His Discharge Summary explained the reason as follows: "At this point, behavior-control medication and treatment approaches based on positive reinforcement have been generally unsuccessful in producing long-lasting decreases in Student 1's behavior. This suggests that Student 1 may require alternative interventions than those normally used at [School A], for example, mechanical restraint or contingent aversive stimulation."

In March 2005, at age 15, Student 1 was admitted to JRC. Figure 1 is a chart showing combined monthly totals of Student 1's aggressive, health dangerous, major disruptive, destructive, and noncompliant behaviors.

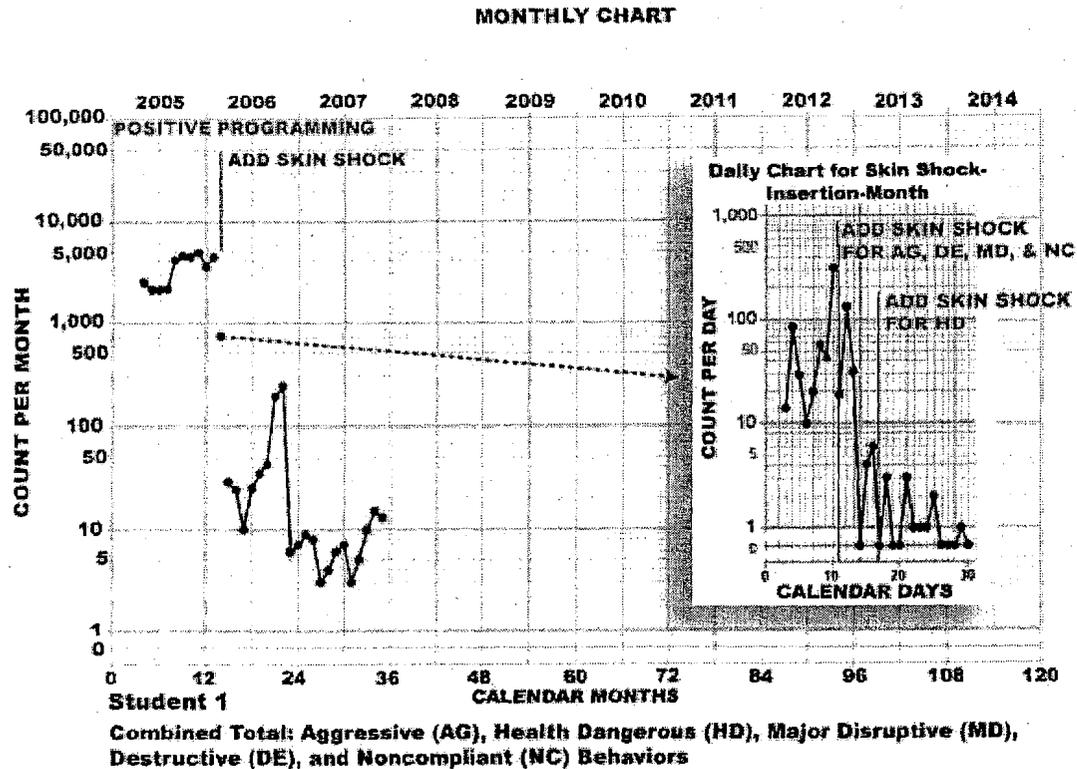


Figure 1. The effect of contingent skin-shock on the aggressive, health dangerous, major disruptive, destructive, and noncompliant behaviors of Student 1.

The chart is the same² as the monthly version of the Standard Celeration Chart (Pennypacker, Guitierrez & Lindsley, 2003) except that it displays only 5 of the usual 6 cycles. The chart has a multiply/divide scale on the vertical axis. A relative change, such as a doubling, tripling or halving, occupies a constant up-down distance anywhere on this chart. The data on which this chart is based were recorded by JRC's direct care staff members and then entered into a database. Computer software then produced daily (see inset graph in Figure 1), weekly, monthly (Figure 1) and yearly charts with multiply/divide scales which were updated daily and accessed by Student 1's clinician at his desktop through the school's network.

The data series displayed on the left side of Figure 1 is divided into three parts: (1) a data series for the 10 months of baseline (labeled "Positive Programming"); (2) a single data point for the month during which the skin-shock was inserted in the student's program (the "skin shock insertion month"); and (3) a data series for 21 months of skin-shock treatment. The data point for the skin-shock insertion month is not connected to either the baseline or treatment series because it contains some days from the baseline phase and some from the treatment phase.

To show the data for each of the days of the skin-shock insertion month there is a daily chart that is inset on the right side of the chart³. This chart is basically the same as the daily Standard Celeration Chart (Pennypacker et al., 2003) except that it shows only 3 of the usual 6 cycles.

Figure 1, as well as the other behavior charts included in this paper, shows the number of behaviors that the individual in question engaged in, and not the number of skin-shock applications, which was always less. One reason is that sometimes the individual displayed many instances of certain behaviors within a single episode. In such cases each separate behavior occurrence was tallied and

recorded, but only one skin-shock application was given to consequence the entire episode. Another is that on some occasions, due to equipment failure or other reasons, an alternative consequence (a verbal "No") was substituted for the skin-shock.

During Student 1's first 10 months at JRC, psychotropic medication was tapered and discontinued, and positive-only programming was used exclusively. Figure 1 shows, however, that JRC's positive-only programming was not successful by itself in decreasing Student 1's problem behaviors. Over the course of his first 10 months at JRC, he displayed a mean of 3,532 aggressive, health dangerous, major disruptive, destructive, and noncompliant behaviors per month and the behaviors were accelerating.

After these first 10 months, during which JRC's positive programming proved unsuccessful, Student 1's parents gave their approval to JRC to supplement his positive programming by arranging a single skin-shock consequence for each instance of his problem behaviors. For more information on JRC's positive-only programming procedures and its use of supplementary skin-shock delivered by the Graduated Electronic Decelerator (GED) device⁴, see Israel et al., (2007). After obtaining prior parental informed consent, and with various other safeguards in place (Israel et al., 2008), JRC applied to a Massachusetts Probate Court for approval of an individual treatment plan for Student 1 that included the use of skin-shock. This procedure of obtaining prior parental consent as well as an individual court authorization for skin-shock treatment was also followed in each of the other cases presented in this paper.

The data for the first month of treatment are displayed in the inset daily chart on the right side of Figure 1. Notice that CSS treatment of health dangerous behaviors (labeled "HD" in the inset) began one week after CSS treatment was started for the other four categories of behavior—aggressive (AG), destructive (DE), disruptive (DI), and noncompliant (NC). The relatively high rates seen during the first few days of CSS treatment reflect the continued high rate of Student 1's health dangerous behaviors, which were not yet being treated with CSS.

Once skin-shock was added to Student 1's program for all of his major problem behaviors, the behaviors showed an abrupt drop in monthly frequency, changing from 4,459 during the last full month of baseline data to 29 during the first full month of CSS treatment—a decrease in which the frequency divided by a factor of 154. In calculating this drop, immediately after CSS insertion, for Student 1 (and for the other students covered in this paper) we ignored data from the skin-shock insertion month, because it was composed of data from both the baseline and treatment phases. A sudden frequency drop that occurs immediately after the introduction of skin-shock is often found when CSS, generated by the GED device, is employed and is seen in other charts in this report. See Israel et al. (2008).

In the 21 months since skin shock was started with Student 1, the rate of his major problem behaviors has remained at a manageably low level. Although his problem behaviors are not at zero, his most recently monthly frequency was only 13 as compared with 4,459 in the final baseline month.

As a result of this dramatic decrease in Student 1's problem behaviors, by April, 2006, he was able to participate in weekly academic and recreational field trips to places such as restaurants, art centers, the zoo and bowling alleys. He was able to complete his bathroom routine independently and had learned to brush his teeth with only verbal prompts. As of this writing, Student 1 works independently on his computer academics and completes most of his household chores without the need for prompts. His family now enjoys successful visits with him at JRC and takes him into the community on those occasions.

Student 2

In 1999, at age 13 Student 2 enrolled in a day school operated by School B, another well-regarded special needs program that uses positive-only behavioral treatment procedures. At that time she engaged in head-banging to the point of causing pain, redness, bruising and tissue damage. She did this by either hitting her head against an object or by punching her head or face with her fist. She averaged 15-23 occurrences per day. While at School B, the severe punching of her own eyes caused permanent impairment of her vision. She also flopped on the floor from a standing or seated position and aggressed against other students as well as staff members. Her aggressive behaviors included grabbing, pinching, scratching, and pushing others. At home, Student 2's sister was terrified of her because of her behaviors, and as a result Student 2 could not participate in family trips.

School B treated these behaviors using the following positive-only procedures: they tried to block all of her self-injurious behaviors; they prompted her to put her hands down if necessary; they stopped interacting with her until she remained calm for ten seconds; they encouraged her to use her "words" instead of exhibiting her problem behaviors; they granted any request during times she was not exhibiting her behaviors; they gave her a functional communication book and they also used manual restraint in the form of certain "protective holds." On the school bus they kept a row of empty seats as well as an aisle between Student 2 and the nearest other person. In addition, the psychotropic medications Buspar and Risperidone were tried without positive effects. Student 2's last IEP from School B shows that her self-injurious behaviors, even after 5 years of positive-only treatment, were occurring approximately 23 times per day.

In April 2004, School B expelled Student 2. Shortly thereafter, at age 17 she was admitted to JRC. Figure 2 is a monthly chart showing Student 2's aggressive, health dangerous and noncompliant behaviors, all combined into one monthly total.

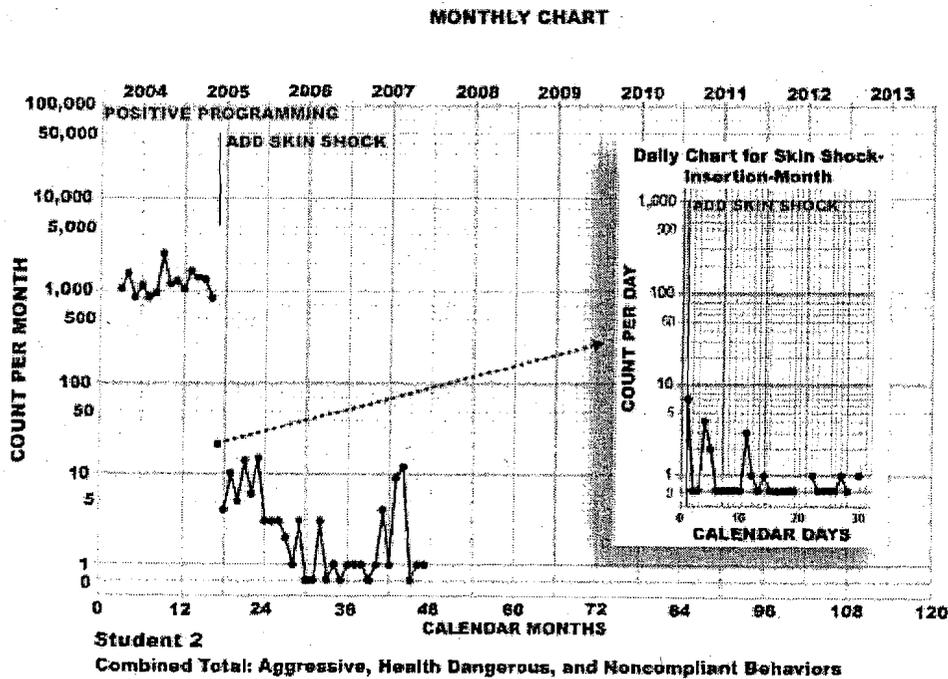


Figure 2. The effect of contingent skin-shock on the aggressive, health dangerous, and noncompliant behaviors of Student 2.

During her first fourteen months at JRC, Student 2 was treated with positive-only programming. This was not effective in decreasing her major problem behaviors which, after fourteen months, were still occurring at unacceptably high levels (mean of 1,994 per month during the last three baseline months).

In May 2005, JRC added a skin-shock intervention to Student 2's program to treat her aggressive, health dangerous, and noncompliant behaviors. Figure 2 shows that once the skin-shock consequence was added, her aggression, self-abuse, and noncompliance decreased abruptly. After skin-shock insertion, and ignoring the data from the skin-shock insertion month itself, Student 2's problem behaviors dropped from 848 per month (last full baseline month) to 4 per month (first full treatment month)—i.e., divided by a factor of 212. Those behaviors then decelerated further over the next 2 ½ years, except for a sudden frequency increase (“jump up”) in July 2007 and a sudden frequency decrease (“jump down”) in September 2007, and reached 0 or 1 during each of the last 3 months shown on the chart.

Student 2 now engages in academics for extended periods and is able to move from one area of the school building to another without problems. She works on academic programs that are teaching her to count and is making significant progress in her communication skills. Her sister is no longer afraid of her. As a result, Student 2 has been able to participate in a family vacation to Florida. All of this would have been impossible if her problematic behaviors had remained at frequencies similar to those she exhibited during her first 14 months of positive-only programming at JRC.

Student 3

Between the ages of 14 and 17, Student 3 attended School A (the same school that Student 1 and Student 5 had attended) as a residential student. According to a discharge summary in 2003, while Student 3 was enrolled there, he displayed “noncompliance, aggression to others, sexualized behavior, self-injury and property destruction,” behaviors that occurred “across the day at the school and residential settings...”. He often required 3:1 or 4:1 staffing and was often restricted to a special intensive unit where students received 24-hour 1:1 staffing. During his stay at School A, there were numerous documented incidents in which he required medical attention as a result of self-injurious behaviors or fighting with his peers. He exhibited severe aggressive behaviors, including physical altercations with his peers, as well as self-injurious behaviors such as punching his head, running away and cutting into his right arm. In addition, Student 3 displayed inappropriate sexual behaviors and swearing at staff. During several home visits, Student 3 either ran away from home or would engage in physical altercations with his family members. After one of his fights with his father, Student 3 had to be placed in handcuffs by the police and taken to an emergency room.

When Student 3 exhibited these problematic behaviors, the primary techniques that School A employed were “physical intervention,” placing him in “exclusionary time out” (seclusion) and restricting him from “community and vocational environments for varying amounts of time depending on the topography of the behavior.” Positive interventions utilized while at School A included: offering choices, visual supports, verbal and physical prompting, environmental modifications, behavioral contracts (DRAs), a point system, direct instruction, and consultative services from a speech and language pathologist. He was also placed on multiple psychotropic medications including Risperdal, Trazadone, Depakote, Neurontin, and Cogentin (earlier in his life he also been tried on Ritalin, Dexadrine, Clonidine, Tenex, and Thorazine). These treatment procedures were not sufficiently effective.

On October 20, 2003, Student 3's school district sent a referral packet to JRC inquiring if JRC was willing to accept him as a student. The referral letter from the referring school district to JRC stated, “As a result of his last IEP meeting it was decided that a more appropriate residential placement be found to address Student 3's complex needs.”

Figure 3 is a monthly chart showing the frequency of Student 3's major problem behaviors at JRC.

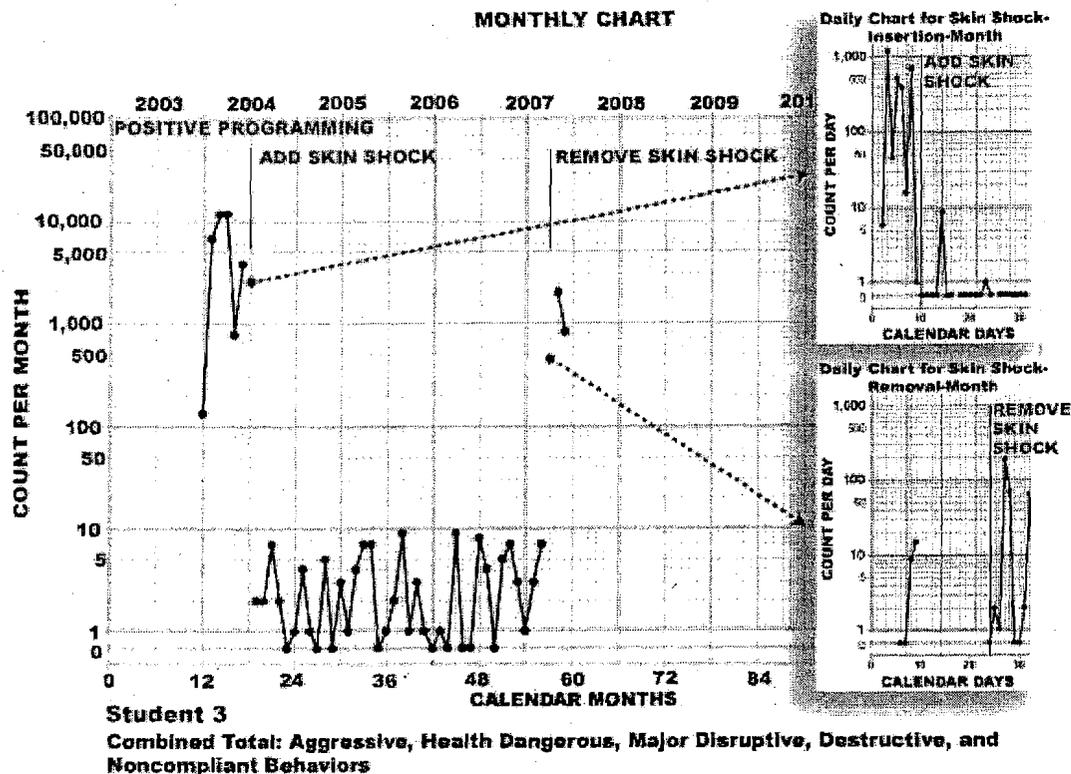


Figure 3. The effect of the addition and removal of contingent skin-shock on the aggressive, health dangerous, major disruptive, destructive, and noncompliant behaviors of Student 3.

These behaviors included aggressive, health dangerous, destructive, major disruptive behaviors and noncompliant behaviors. During Student 3's first six months at JRC, he received positive-only programming including, for example, various behavior contracts targeting the absence of inappropriate behaviors, as well as opportunities for him to earn various rewards throughout the day. During this period he was also slowly weaned off all of his psychotropic medication.

Student 3's problematic behaviors showed little improvement during his first five months at JRC. On month 6 he was still exhibiting 3,828 dangerous behaviors per month (a mean of 128 per day)—an unacceptably high level. There were some days, prior to the introduction of skin-shock, on which Student 3 would exhibit over 2,000 dangerous behaviors including aggression and sexually inappropriate behaviors.

In June of 2004 (daily data for this month is shown in the top inset graph) skin-shock was added as a consequence for Student 3's major problem behaviors. As soon as the skin-shock treatment was added to his program, Student 3 showed sudden and dramatic improvement. The frequency of his problem behaviors showed an immediate frequency decrease from 3,828 per month on the last full baseline month (and again ignoring the data for the skin-shock insertion month) to 2 per month on first full treatment month—an improvement by a factor of 1,914. After that, and for the next three years, Student 3's major problem behaviors maintained at a very low level, between 0 and 9 per month.

From the summer of 2004 through March 2007, Student 3 was able to work consistently each day on his academic skills in a classroom with his peers. He no longer hurt himself or others. He lived in an apartment with his peers that had minimal staffing, was learning vocational skills and went on several successful home visits.

In March, 2007 Student 3 ran away from JRC and when he returned his mother withdrew her permission (at Student 3's request) for the skin-shock treatment. Once this treatment was removed, Student 3's behaviors regressed to the same levels that he had shown at the end of his baseline period of "positive-only" treatment. The return of Student 3's problem behaviors as soon as skin-shock was removed shows how critical the skin-shock was for his improved behavior and suggests that for him it was functioning at that time as a prosthetic, rather than as a curative, treatment.

Currently Student 3 is doing poorly and his mother is now considering granting permission once again to JRC for the resumption of GED treatment.

Student 4

Student 4 enrolled in School C at the age of 5 in September of 1991. Student 4's self-injurious and aggressive behaviors increased in frequency and intensity as he grew older. Eventually his behaviors became so intense and unmanageable that neither he nor those around him were safe. Student 4 would physically attack others resulting in serious staff injuries. He would also head-bang. He bit himself so frequently that his hands became severely calloused. Because of his behaviors, he was unable to go on home visits, make community trips or receive an education.

School C did a careful functional analysis of Student 4's behavior problems and attempted to treat him with a wide variety of positive-only procedures which included the following: use of a picture schedule both in school and in the residence; use of a set of "first....then" sequence cards with him so that he could anticipate reinforcement; use of a timer so that he could recognize the beginning and end of activities; a sensory diet; instruction that was short, direct and brief; use of a penny board; use of a "break card" so that he could request a break at any time; use of communication book; and functional communication training.

In addition, Student 4 was given medications such as Haldol, Dexedrine, Orap, Thorazine, Risperdal, Depakote, Clonidine, Cogentin, Benydryl, Zoloft, and Luvox. Thorazine was also prescribed as a PRN, and if his behaviors failed to respond to the Thorazine another PRN of Trazodone was administered. None of these medications were effective.

School C eventually decided that it was unable to meet Student 4's needs and sought to refer him to some other program that might be better able to manage his behaviors. Every appropriate placement in his home state rejected Student 4 after reading his history. His information was then sent to 18 schools from Maine to Virginia. Only four of them called for interviews and he was rejected by all of them due to the intensity of his aggression.

A crisis period for Student 4 developed just prior to the point when he was discharged from School C. During this crisis, various additional interventions were tried, including retraining the staff that worked with him, providing 1:1 staffing at all times, psychiatric consultation, consultation with a well-known expert in autism, classroom changes, hospital outpatient psychiatric services, and PRN medications.

Eventually Student 4 was referred to JRC, which accepted him. In December of 2004, at age 19, Student 4 was discharged from School C and transferred directly to JRC. Upon arrival at JRC, Student 4

went into a coma due to an overdose of psychotropic medication that was given prior to and during his transportation to JRC. He was diagnosed with Neuroleptic Malignant Syndrome and was hospitalized for over 1 week.

Figure 4 is a monthly chart for Student 4 in which each data point represents the total of all of Student 4's most dangerous behaviors during that month.

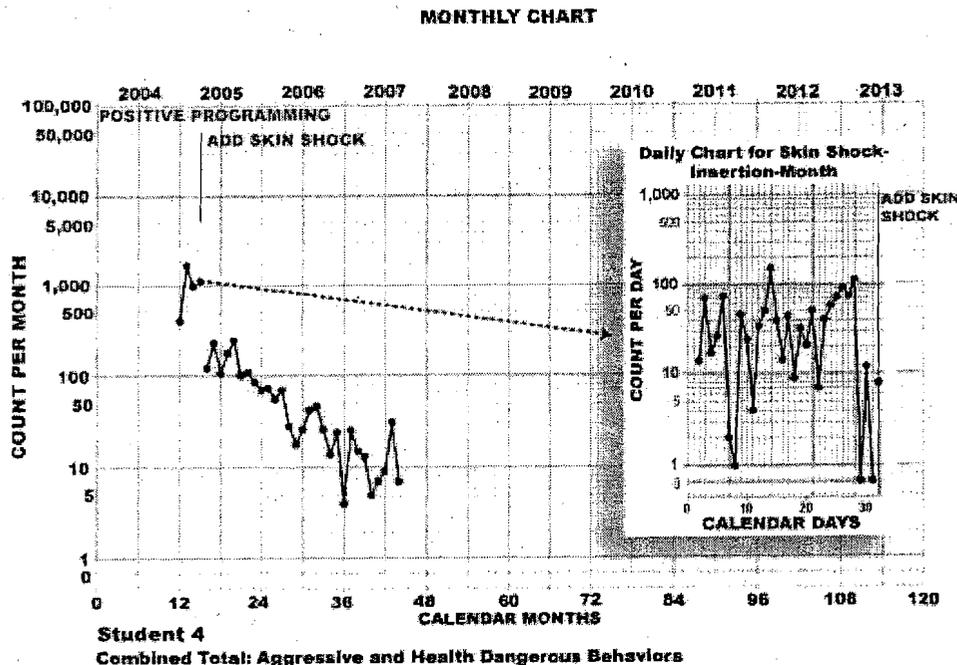


Figure 4. The effect of contingent skin-shock on the aggressive and health dangerous behaviors of Student 4.

The chart shows that during his first 3 months at JRC, during which he received positive-only treatment, Student 4 displayed a mean of 1,038 aggressive and health dangerous behaviors per month. Once contingent skin-shock was added to his program, (and ignoring the skin-shock intervention month shown in the inset), his problem behaviors made an immediate frequency jump down, dividing by a factor of approximately 6. The problem behaviors generally accelerated over the next four months, however, and then decelerated more or less steadily over the next 2 years.

Student 4 is now completely off all psychotropic medications and works daily on a computer doing his academic work. Student 4 has also made significant progress socially and with his daily living skills. He is able to participate in academic and recreational field trips, attends all school activities and goes out into the community with his parents when they visit, without any JRC staff accompanying him.

Student 5

Student 5 attended School A as a residential student between the ages of 10 and 14. While enrolled there, Student 5 engaged in severe aggression which was described in a referral summary from October 2001 as “head-directed punches, kicking, biting, spitting and throwing feces at others.” He fractured a staff member’s nose. His severe self-injury included head banging (against walls and objects) that required emergency sutures, “punching his eyes, hitting his head against objects, pulling his teeth out, biting himself, etc.” He engaged in “property destruction, disrobing, clothes ripping, fecal smearing...elopement as well as other disruptive behaviors such as swearing, teasing and banging walls

and objects.” On “two occasions he eloped during overnight hours when staffing was reduced.” He also ingested inedible items, inserted objects into body orifices, showed noncompliance and engaged in tantrums. He punched his mother in the car, making transport home impossible, and he could not participate in community outings from school.

School A tried a variety of positive-only behavioral strategies. These included “positive reinforcement contracts,” as well as “antecedent-based” types of interventions (manipulation of stimuli and setting events). At one point, after receiving expert consultation from a behavioral consultant, School A implemented new reward procedures as well as punishments. Contingent upon good behavior, Student 5 was allowed to a) select who would work with him on an hourly basis, b) choose from any preferred item or activity and c) request breaks and conversations at any time. In addition, surprise rewards were delivered on a variable-time schedule. Following certain maladaptive behaviors, Student 5’s behaviors were consequence by providing him with complete (but non-preferred) meals and denying him any form of social attention until he exhibited 8 consecutive hours of appropriate behavior. This social isolation procedure was not effective. While attending School A, Student 5 was also given the psychotropic medications Risperdal, Tegretol, Trazodone and Benadryl, none of which were effective.

Student 5’s referral summary reports that although School A’s treatment procedures often showed promise at first, “these positive effects do not seem to maintain, and Student 5’s aberrant behavior re-emerges... This has produced minimal positive change in [Student 5’s] behavior.” Decreases in target behaviors “haven’t lasted more than one or two weeks.”

In an IEP amendment dated 12/11/01, a representative of School A wrote that the sending school district proposed amending his IEP to change his place of education. The reason was given was that “... his behavioral issues are becoming more significant and putting his safety at risk. Also [School A] have given the district’s [sic] until Feb. 1st 2002 to transition [Student 5] to another placement” [bracketed material supplied].

On March 5, 2002, at age 14, Student 5 was enrolled at JRC. Figure 5 is a chart showing the monthly totals of Student 5’s five major categories of problem behaviors – aggressive, health dangerous, destructive, major disruptive and noncompliant–combined into one monthly total.

See Figure 5, Next Page!

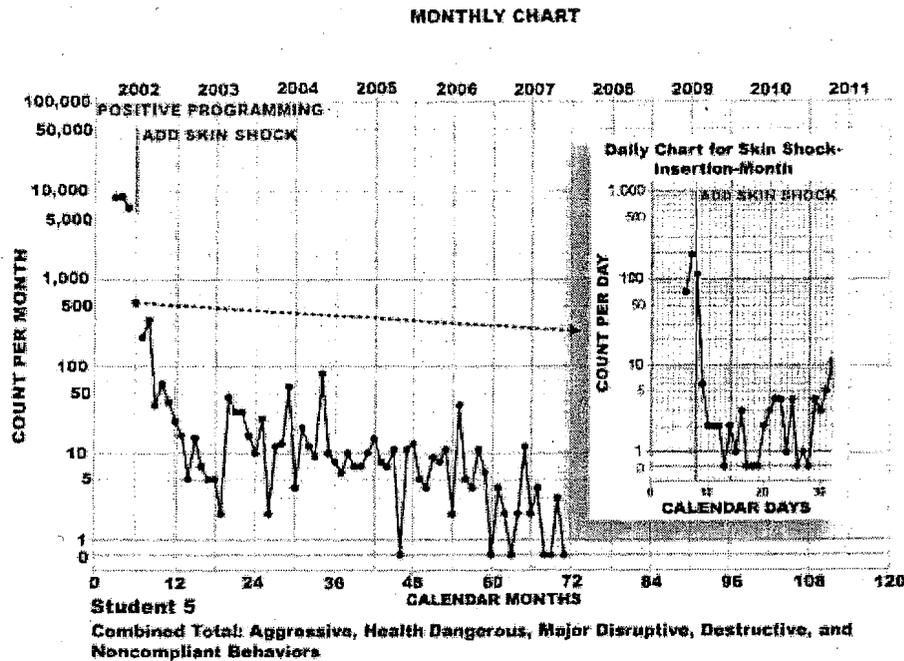


Figure 5. The effect of the addition and removal of contingent skin-shock on the aggressive, health dangerous, major disruptive, destructive, and noncompliant behaviors of Student 5.

During Student 5’s first four months at JRC, psychotropic medications were tapered and discontinued, and positive-only programming was applied. Although this programming succeeded in dropping his major problem behaviors from a frequency of 8,626 per month to 6,502 per month, this was still an unacceptably high level.

In June of 2002 JRC added a skin-shock intervention to his program, with the usual prior parental consent, individual court authorization and other safeguards. Figure 5 shows that this addition to Student 5’s program was associated with an immediate frequency jump down. Once again, we ignore the skin-shock insertion month (which includes both baseline and treatment days), whose daily data is shown in the inset, in calculating this jump down. The monthly frequency dropped from approximately 6,502/mo (on the last full baseline month) to 218/mo (on the first full treatment month)—i.e., divided by a factor of 30. Over the next five years, these behaviors showed a general deceleration, reaching zero in November 2007.

Student 5 now rarely requires physical restraint and consistently masters academic lessons in reading, math, phonics and spelling. He lives with another student in an attractively decorated room which he does not damage. He enjoys field trips (educational and recreational) and no longer has difficulties with transitions. Student 5 continues to learn new and appropriate social behaviors that have allowed him to form relationships and interact appropriately with his support staff, family and other students. He now goes on frequent, successful overnight home visits with his parents.

Student 6

In September 1997, Student 6, at age 14, displayed such severe aggressive and health dangerous behaviors that no residential program would accept him. As a result, he was placed in a children’s hospital. Due to his lack of any behavioral progress while there, in December 1999 the hospital sent him

for a four month evaluation to School D, another well-regarded special needs residential program that specializes in positive-only treatment. His most problematic behaviors while attending School D included scratching himself, rubbing his body parts together to cause injury, biting himself, pinching himself and hitting/banging his head. Due to his self-abuse, Student 6 had numerous scars on his body and had required surgery on his left ear. Student 6 would also become aggressive if staff prevented him from injuring himself.

School D's interventions to treat Student 6 included mechanical restraint for almost the entire day, and immobilization at night. He was even prevented from moving while in bed in order to help him sleep better. Despite all this mechanical restraint Student 6 continued to engage in self-abusive and aggressive behaviors.

In March 2000, Student 6 was discharged from School D and sent back to the children's hospital from which he had come. The hospital continued the use of the restraint that had been developed at School D and later, due to his continued aggressive and self abusive behaviors, added the psychotropic drugs Droperidol and Cogentin. His mother reports that during his time at School D Student 6 was unable to go home, was out of control, and received no meaningful education.

At age 17, in October 2000, Student 6 was admitted to JRC. At that point he was in mechanical restraint and still receiving Droperidol and Cogentin. Whenever Droperidol, an anesthetic, was administered to him, Student 6 fell asleep. He was weaned very quickly from the psychotropic medications because they appeared to have no therapeutic value in view of the fact that he still exhibited intense and dangerous behaviors when awake. At JRC Student 6 was started immediately not only on positive programming, but also on court approved contingent skin-shock, because he was continuing to cause severe damage to his face even while wearing arm splints and a helmet.

Figure 6 shows the combined monthly totals for Student 6's aggressive and health dangerous behaviors.

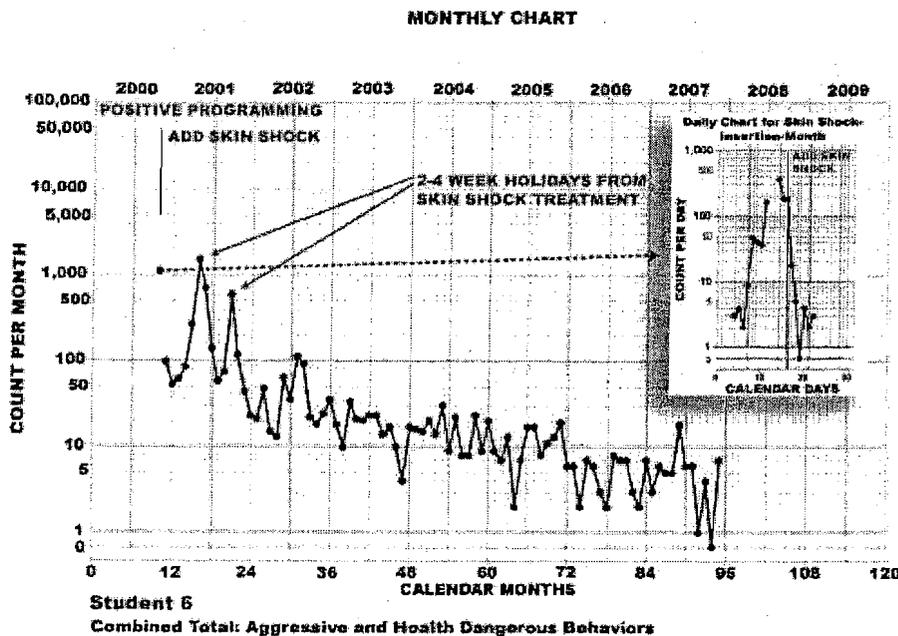


Figure 6. The effect of contingent skin-shock on the aggressive and health dangerous behaviors of Student 6.

Within one week of the addition of skin-shock treatment, JRC was able to remove his helmet and began fading the stiff stays out of his arm splints. As Figure 6 shows, after the introduction of skin-shock treatment, Student 6's maladaptive behaviors showed an initial deceleration followed by two distinct spikes in behavior. During these two periods skin-shock treatment was temporarily suspended for a few weeks because his records indicated that he had a history of displaying occasional dramatic increases in behaviors that were resistant to treatment. During these periods mechanical restraint was used to keep him safe. When CSS treatment was resumed, Student 6 showed a gradual and relatively steady deceleration that has extended over seven years. During the last month shown in Figure 6 he displayed zero problem behaviors.

Student 6 is now flourishing academically and socially. He is free of all restraint and medication. He averages only one self-injurious behavior per week and is a happy, smiling young man, free of any injuries. No restraint or medications are necessary and he participates in a full schedule of academics, habilitative skill development and vocational training. He participates in activities in the local community and enjoys frequent visits from his mother.

Student 7

Student 7 was enrolled in special education programs starting at the age of 5, when he attended a day program operated by School E. Student 7's mother reports that he was out of control while there and frequently ran nonstop around the classroom. During a weekend respite stay at School E, Student 7 opened a bottle of liquid Mellaril and drank the entire bottle. He ended up in the emergency room and on the pediatric unit of a hospital for three days. Student 7 was discharged from School E after one year because he was not making any progress and his inappropriate behaviors were increasing.

Student 7 was then admitted to the same School A that is referred to above. At that point he was engaging in 70-80 aggressive and self-injurious behaviors per day. His most severe behaviors included biting himself and others, bolting from staff, pinching himself and others and pica. He was discharged from School A after 1 year because he was not making progress and his behaviors were increasing.

Student 7 then spent 7 years at School F. School F's interventions included the use of group dynamics, art, music, academics and the acquisition of communication and daily living skills. During Student 7's stay at School F, he made significant progress in learning daily living skills but his severe maladaptive behaviors impeded continuous growth in all other areas. He would often have tantrums involving violent aggressive outbursts and health dangerous behaviors such as frequently bolting from teachers and engaging in pica. Student 7's mother was unable to control his severely dangerous behaviors when he was at home during vacation periods. He would stay awake during the night hours and engage in pica, ingesting household items such as motor oil, detergents, bleach, plants, lead paint and deodorant. On one occasion, Student 7 assaulted his brother while his brother was driving a moving vehicle. During Student 7's vacation periods he repeatedly chewed on the woodwork in his mother's house.

School F was unable to treat Student 7 successfully and at age 12 he was removed and enrolled in School G. While at School G the frequency and intensity of his dangerous behaviors began to increase. He recurrently targeted younger children and females with intense aggression, often biting and scratching them. These outbursts were sometimes without antecedents and appeared premeditated. He would wait for the staff member or peer to turn his or her back to him and then aggress. Antecedents or situations likely to bring about behavioral outbursts included placing demands on him, telling him "no", and denying him a food item that he desired. Because he attacked his family when at home, he could not go on regular home visits or on community trips with them.

One of the principal interventions used at School G involved escorting him to a secluded area

subsequent to an aggressive or health dangerous episode and prompting him into a seated position. In this area he often would bite his hand or bang his head while moaning. On several occasions it required additional staff support to contain him in this area because he attempted to assault the staff. If these episodes occurred while at his group home, Student 7 would be escorted to an empty room and be left unattended. Once there, he often destroyed the blinds in the room, bit himself and continually got out of his seat. In addition Student 7 engaged in frequent disruptive and noncompliant behaviors such as screaming, refusing to follow directions or respond to physical prompts, disrobing, and masturbating in public. While at School G, he was prescribed Risperdal, which was also unsuccessful in treating his behaviors.

In April 2003, Student 7, now age 16, was admitted to JRC. Figure 7 shows the monthly totals of Student 7's most dangerous behaviors.

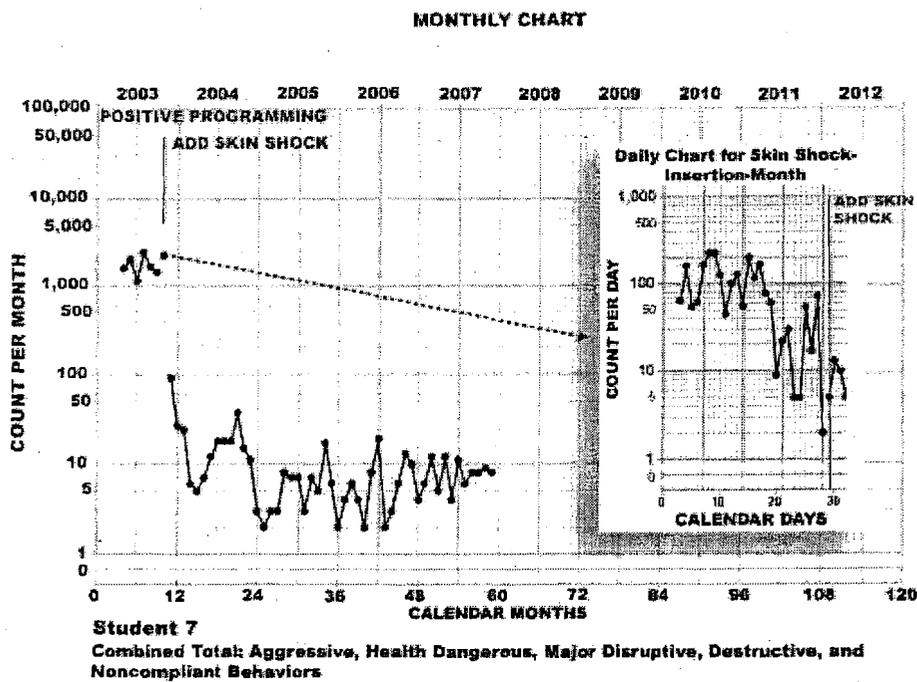


Figure 7. The effect of contingent skin-shock on the aggressive, health dangerous, major disruptive, destructive, and noncompliant behaviors of Student 7.

When Student 7 was admitted to JRC he was treated with positive-only programming for over six months. During this period there was no deceleration in his problem behaviors and he was engaging in a mean of 1,753 dangerous and disruptive behaviors per month. After these six months of positive-only programming, contingent skin-shock was added to Student 7's treatment. Student 7's health dangerous, aggressive, destructive, major disruptive and noncompliant behaviors then showed an immediate decrease. If we once again ignore the skin-shock insertion month shown in the inset, the jump down is from 1,476 per month (last full baseline month) to 92 per month (first full treatment month), dividing by a factor of 16. Thereafter the behavior decelerated over the next 15 months to 2 or 3 per month. During the last three years he has exhibited a mean of only 6.8 problem behaviors per month.

In addition to these behavioral improvements, Student 7 advanced academically and socially. As

of October, 2003 when skin-shock was inserted into his program, Student 7 was able to participate in community outings and weekly field trips to places such as museums, amusement center, and restaurants and was able to go on frequent home visits with his family.

Discussion

All seven individuals presented in this paper were expelled from highly regarded behavioral programs that used state-of-the-art positive-only programming. All seven eventually required that their positive-only programs be supplemented with an effective aversive stimulus in the form of skin-shock. When skin-shock was added, all seven made significant academic and social progress and were able to engage in the positive rewards and educational progress to which they had previously been denied access due to the frequency and intensity of their dangerous behaviors. These case histories provide strong support, therefore, for using supplemental aversives when positive-only interventions have failed to produce appropriate results and the individuals are at continued risk of harming themselves or others.

These reports also suggest that the assertion that all severe problem behaviors can be effectively treated with positive-only behavioral treatment procedures is premature. Until positive-only procedures are able to treat individuals with really severe behavior problems effectively, and without disabling and harmful psychotropic drugs, it is only prudent and humane to keep available the option of supplementing positive procedures with aversives when required.

Unfortunately, during the past few decades, considerations of political correctness, career advancement, and regulatory prohibitions have prevented most behavioral psychologists from considering, using or even doing research on supplementary aversives. Where does this leave parents of children such as those described above, whose children have been rejected or expelled from the best positive-only programs available and whose behaviors are too dangerous for the children to be taken home? And where does this leave the individual who is stuck with a problematic, non-functional repertoire that our current technology of positive-only procedures is unable to remedy, who is facing a lifetime of dangerous psychotropic medication while bouncing in and out of psychiatric hospitals or other institutional settings, and who has lost the opportunity to participate in a rewarding and meaningful life?

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Footnotes

¹ Copies of the documents containing the quotations contained in this document, as well as related information, are available from the senior author upon request.

² As is true of the monthly Standard Celeration Chart, on this chart a data series that doubles every six months draws a 34 degree angle.

³ The reader may wonder why the first data point on this inset daily chart is not placed on the first vertical line. On this daily chart the heavy vertical lines represents Sundays, and the thin vertical lines represent the weekdays. Each data point is plotted on the day of the week appropriate to the date on which the student displayed that total number of problem behaviors.

⁴ For an analysis of the side effects of JRC's skin shock treatment, see van Oorsouw, Israel, von Heyn & Duker (2008).

Author's Note

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