The Ethics and Legality of Beta Blockers for Performance Anxiety: What Every Educator Should Know

Written by Luis C. Engelke and Terry B. Ewell

Educators are required to make many pedagogical decisions, and fortunately, most are quite simple and do not necessitate major ethical considerations. Some decisions might come easily—for instance whether to copy music for a page turn or view a video on YouTube. However, others are not straightforward. In particular those that pertain to beta blockers raise many legal, ethical, and medical issues. Many educators have not taken the time to consider seriously or research the implications of using beta blockers for performance anxiety and, even more crucially, of recommending these drugs to their students.

Are students who study with teachers who do not include beta blockers as a possible solution to severe performance anxiety at a disadvantage? Do teachers who recommend beta blockers to students make a poor ethical decision: one that could even pose severe legal consequences? There is no doubt that educators are faced with an increasingly litigious society, and having the knowledge regarding specific legal issues has become extremely important.

Symptoms Presented Due to Anxiety or Nervousness

Most musicians and/or teachers have some understanding of the symptoms associated with performance anxiety. However, a more thorough comprehension of its causes and related symptoms will better equip these individuals to manage stress. For different individuals, the root causes of performance anxiety are not necessarily the same, and therefore, care should be taken to first ascertain the primary cause. One of the most common physical responses to stressful performance situations is the increase of adrenalin (epinephrine) in the body. Receptors throughout the body respond to adrenalin in differing ways, which are often classified into five broad types: (1) peripheral excitatory action in blood vessels, salivary and sweat glands; (2) peripheral inhibitory action in the wall of the gut, bronchial tree, and in blood vessels supplying the skeletal muscle; (3) cardiac excitatory action; (4) metabolic actions in the liver and muscle; and (5) central nervous system excitatory action including increased respiration, wakefulness, and reduction in appetite. In short, many parts of the body react to adrenalin: from sweaty palms and shaking fingers to a queasy stomach and increased pulse rate. Adrenalin is an aid for quick action by large muscle groups, but can be a detriment to smaller muscle groups such as those in the fingers or lips. Hence many performers complain that their bodies do not react in the same way under the stress of performance as in times of practice.

Some symptoms of performance anxiety are best described as emotional or psychological. Increased moodiness, apprehension, and depression may be present during the on-going stresses of meeting performance standards. Also, musicians may find difficulty with concentration and focus during concerts or auditions. While increased adrenalin may exacerbate these symptoms, chemical imbalances in the body or psychological issues could also account for these symptoms. As a consequence no single medical or psychiatric solution is possible as a simple recommendation for symptoms associated with performance anxiety. The musician with severe performance anxiety may need counsel from multiple professionals to identify the root cause or causes of the debilitating symptoms.

An Increasing Acceptance and Prevalence

Utilizing beta blockers to alleviate performance anxiety has become widely accepted by many performers. These drugs were invented by Sir James W. Black in 1964. Three years later, in 1967, Propranolol became the first beta blocker to be approved by the Food and Drug Administration (FDA) for specific medical purposes. More than a decade later, in 1979, Thomas and Charles Brantigan published the first medical research in America supporting the effects of beta blockers for relieving stage fright. Although beta blockers were never approved for the treatment of anxiety, physicians are allowed to prescribe non-FDA approved medications if there is medical research that supports a benefit. Effectively, the drug was introduced to musicians in the late 1970s, and the use of beta blockers to treat performance anxiety has been increasing since as evidenced by numerous publications.

In 1982, Tom Hall of the Chicago Symphony published a significant article titled “A Cure for Stage Fright?” in Senza Sordino, the official publication of the International Conference of Symphony and Opera Musicians (ICSOM). This article introduced beta blockers to a community of musicians who eventually adopted these drugs, but it also discussed the potential dangers:

As with any drug, indiscriminate use is risky and undesirable. There is also an ethical issue. Might not the use of potent prescription drugs by a performer at an audition give him an unfair edge over the competition just as it might to the athlete or race horse? Does an audition by a candidate who uses Propranolol reveal with greater or lesser accuracy how he will play on the job? Must orchestras be prepared to administer blood and urine tests to audition applicants?

ICSOM responded in the February, 1985 edition of Senza Sordino:

The July 1982 issue of Senza Sordino presented news of a study of the use of beta-blocking drugs like propranolol (Inderal) to alleviate the symptoms of stage fright. The use of these drugs for this purpose has been widely reported and was explored by medical conferences. Where concern was expressed over their indiscriminate use, Lew Waldeck of the American Federation of Musicians Symphony Department also expresses concern, reporting that Inderal is apparently being sold on the streets around performance centers in some cities and that some conservative dispensaries are distributing beta-blockers to students requesting medication for stress.
The June 22, 1984 issue of the Medical Letter on Drugs and Therapeutics notes that propranolol "is usually well tolerated but is potentially dangerous in patients with heart disease or asthma, since even low doses can cause bradycardia, congestive failure, or life-threatening bronchospasm. Fatigue, depression, nightmares, and impaired sexual function are fairly common adverse effects of continued use."

Dr. Frank Wilson, in a paper entitled "Inderal for Stage Fright?", further notes that Inderal can lower blood pressure to levels that cause fainting, can complicate the management of diabetes, and can alter the body's reaction to agents used for general anesthesia, and has caused fatalities in individuals who have suddenly discontinued its use.

If you have never used it, don't take Inderal or any pill offered to you by a non-physician as an aid for dealing with nervousness. If you have Inderal, don't give it to anyone else to use. Whether you use it or not, urge your colleagues, students to observe these admonitions.5

The first scientific study about the use of beta blockers by professional musicians was undertaken by ICSOM soon thereafter, and found that 27% took beta blockers. From this group of users, only 19% took them on a daily basis for heart conditions; however, 70% reported occasional use without a doctor's prescription, and 72% used them for auditions.6

Several informal articles and interviews have demonstrated an increased use and acceptance of beta blockers for performance anxiety over time. According to an unscientific survey undertaken by the beta blocker study committee of FLUTE Internet mailing list in 1997, 52% of professionals used beta blockers for performance anxiety.7 In a 2006 interview for National Public Radio, the principal oboist of a major symphony orchestra stated the following about classical musicians, "If you were to do some kind of drug test, I would imagine that at least 90 percent of them are using beta blockers for performance anxiety."8 While there have been no recent scientific studies of the usage, most if not all musicians regularly performing symphonic music—particularly those currently undertaking auditions—are aware of the high prevalence of musicians using beta blockers for performance anxiety.

Legal Considerations

As stated earlier, the FDA approved beta blockers for certain conditions in 1967. Currently, clinical treatments supported by the FDA include cardiac arrhythmia, glaucoma, hypertension, migraine prophylaxis, and myocardial infarction.12 While the FDA does not approve other treatments, doctors may prescribe medications for other purposes if there is medical evidence to support their effectiveness. However, drug manufacturers may not advertise these drugs for that purpose. When medication is prescribed in this manner, the medication is being prescribed off-label (for a use other than it was intended). Lawyers.com provides more specific information on the legality of off-label uses for medications:

The FDA does not regulate the practice of medicine. After the FDA has approved a drug, a doctor is free to decide how to use it. It is legal for a doctor to prescribe an off-label use of an approved drug to treat a patient's condition. However, in doing so, a doctor is necessarily deviating from the standard of care.

Standard of care refers to the treatment that experts agree is appropriate for a particular medical condition. Doctors are legally obligated to provide their patients with the appropriate standard of care. If the patient experiences a bad reaction to the drug, the doctor may be liable for deviating from the standard of care for the patient's medical condition.13

Specifically, beta blockers are not approved by the FDA for anxiolytic treatment (the treatment of anxiety). Hence, several important questions arise: Is performance anxiety a medical condition, and if so, when is this the case? If performance anxiety is considered a medical condition, what medications are considered safe and appropriate for treatment?

Music is not a sport; however, legal and ethical precedents in athletics do inform discussions of beta blockers for musicians. First, because there are often more financial resources available in athletics than in music—symphonic music in particular—conditions exist where legal challenges are undertaken in sports while similar issues in music performances persist without legal intervention. Additionally, musicians face many challenges similar to athletes. Not only do both musicians and athletes need to be successful in competition (either in an athletic event or audition), but performance anxiety also hinders athletes in specific sports such as shooting, golf, and archery. The increased knowledge of human anatomy and metabolism, a wider range of drugs, and application of medical expertise to sports has changed all sporting events in the past century. The pressure to succeed in both music and sports may attract individuals to gain any advantage possible, including the use of Performance Enhancing Drugs (PEDs).
The Ethics and Legality of Beta Blockers for Performance Anxi... http://symposium.music.org/index.php?option=com_k2&view=...
Betaine Blockers and Academia

The American Association of University Professors (AAUP) provides some guidance about the ethical responsibility of the professors in the classroom:

As teachers, professors encourage the free pursuit of learning in their students. They hold by the ethical and intellectual standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to ensure that their evaluations of students reflect each student's true merit. They respect the confidentiality of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic or scholarly assistance from them. They protect their academic freedom.

As practitioners, experts in the field, and educators, professors are called upon to uphold the highest ethical standards. Are professors who make their students aware of the effectiveness of beta blockers in treating anxiety symptoms associated with performance anxiety merely informing them of a widely established medical tool? Are professors who inform their students of the effectiveness beta blockers in alleviating the negative aspects of performance anxiety simply equipping their students with the knowledge of a widely accepted practice in the field—and one that will assist them in being competitive in a oversaturated job market? Are professors who either recommend beta blockers under supervised care or make students with anxiety symptoms aware of these drugs perpetuating an underground culture, subjecting their students to possibility of medical complications, and placing themselves and their institutions under legal jeopardy?

The New York Times cites at least one university music instructor who was terminated for informing students of the benefits beta blockers have in treating symptoms associated with performance anxiety. Ruth Ann McClain, who taught flute at Rhodes College in Memphis was released in 2003 for sharing what she termed as "feel[ing] normal for a performance," as a result of a medication prescribed under a doctor's supervision:

Ms. McClain, a grandmother who was then teaching flute at Rhodes College in Memphis, started recommending beta-blocking drugs like propranolol to adult students afflicted with performance anxiety. And last year she lost her job for doing so.

College officials, who declined to comment for this article, said at the time that recommending drugs fell outside the student-instructor relationship and charged that Ms. McClain asked a doctor for medication for her students. Ms. McClain, who taught at Rhodes for 11 years, says she merely recommended that they consult a physician about obtaining a prescription.

While informative, the New York Times article omitted many important details. McClain was an adjunct instructor who was suspended mid-year and then did not have her contract renewed. She cites that these actions were taken after one student complained: a student who utilized beta blockers without incident in a senior recital but then had other disagreements regarding her coursework and assessment. Rhodes College is a private college with a Presbyterian heritage. Regardless of the religious or philosophical foundation of the institution, there is little doubt that as a student, parent, and/or administrator may not share the same ethical views as an instructor. A recommendation viewed as beneficial by an instructor might be viewed as deleterious by others. The consequences of such a recommendation may be as severe as termination of an instructor's contract.

Both music instructors and sports coaches serve as mentors to the students and athletes under their supervision. The death of Earl "Hank" Gathers, an athlete who died while undergoing medically supervised treatment with beta blockers, illustrates how a university employee's judgments may be questioned through legal action. In this case, a $32.5 million wrongful death suit was filed against his coach and the doctors who treated him. Specifically, Paul Westhead, Gathers' basketball coach at Loyola Marymount, was charged with asking doctors to change or reduce medication that controlled a dangerous heart rhythm before the athlete died on the court. Westhead stated the following in regard to the matter:

As his coach, I did my best for Hank Gathers. I was never part of the medical decisions concerning Hank. I did not decide what medication to prescribe or what dosage to take. I feel badly that my relationship with Hank and his family could be distorted with this legal action.

A $1.5 million settlement was eventually reached out of court. The medication was Propranolol under a doctor's supervision. The question arises: does a music professor informing students of the possible benefits of taking the medication with a doctor's supervision place them and their institution under similar liabilities?

A Shifting Paradigm

Supporters of beta blockers often cite that beta blockers are not performance enhancers. For example, Eddie Silva, in a blog for the Saint Louis Symphony, stated the following regarding the New York Times article addressing the termination of Ruth Ann McClain: "The article makes comparisons to steroids in the sports world, which seems way off the mark. Beta blockers don't build muscle mass; they relieve anxiety. They are not performance enhancing. Ironically, beta blockers have indeed been classified as performance enhancers by numerous sports organizations, and examining these trends provides some insight into worldviews in a shifting paradigm.

One of the most influential events in the establishment of a standard list of performance enhancers internationally was the founding of the World Anti-Doping Agency (WADA) in 1999. Beta blockers were indeed listed on the World Anti-Doping Code as early as 2009. As a result, many sporting organizations have also outlawed the use of beta blockers. The International Olympic Committee (IOC), the Pro Golf Association (PGA), and the National Association for Stock Car Auto Racing (NASCAR) are among the organizations that list beta blockers as a banned substance in totality or for certain sports. The National Collegiate Athletic Association (NCAA) has outlawed beta blockers for competitive shooting, and since this organization follows other major athletic organizations, prohibitions in golf and other sports are sure to follow if they have not already been established.

Beta Blockers are also considered a banned substance if and when these sports are held in the Olympics. The World Bridge Federation (overseeing the game of cards) has also banned beta blockers in competition. Effectively, beta blockers are now classified as a performance enhancing substance, joining anabolic agents (including anabolic steroids), peptide hormones, beta-2 agonists, hormone antagonists and modulators, diuretics and masking agents, enhancing of oxygen transfer (including blood doping), chemical and physical manipulation (including Intravenous Infusions), gene doping, stimulants, narcotics, cannabinoids, glucocorticosteroids, and alcohol. Most educators will not even know most of these substances, let alone recommend them. However, the fact that beta blockers are grouped with these drugs should raise concerns among educators. Beta blockers are banned in sports for providing basically the same benefits touted by musicians, and the drugs pose the same health risks to both musicians and athletes. Should not two employees of the same institution—a music professor and a university golf coach—abide by the same ethical standards?
The Ethics and Legality of Beta Blockers for Performance Anxiety

Performance enhancers and academics

Performance enhancers are not relegated to only music and sports. A parallel can also be made in academics. The abuse of medications prescribed for Attention Deficit Hyperactivity Disorder (ADHD) was recently documented in an article titled "Illicit Use of Prescription ADHD Medications on a College Campus: A Multimethodological Approach" published in the Journal of American College Health. In this study, nearly 2,000 undergraduates at a large, public, southeastern university were surveyed. Thirty-four percent of these students reported the illegal use of ADHD stimulants (the taking of these under-the-counter medications without the required medical supervision):

Most illegal users reported using ADHD stimulants primarily in periods of high academic stress and found them to reduce fatigue while increasing reading comprehension, interest, cognition, and memory. Furthermore, most had little information about the drug and found procurement to be both easy and stigma-free. As noted earlier, the prevalence of beta blockers in music performance demonstrates a general acceptance within the profession. Interestingly, students surveyed in the aforementioned study also demonstrated a "general lack of guilt or dissonance over taking illegal stimulants. Most viewed its use as not only physically and psychologically harmless, but also morally acceptable, because it was used for academic purposes and not for social entertainment. As beta blockers have been shown to alleviate the symptoms of performance anxiety, stimulants such as Adderall have been demonstrated as highly effective in increasing attention span, making academic study more interesting, improving cognitive abilities, and fighting fatigue. Certainly no reputable music performer or academician would recommend either beta blockers or Adderall without a doctor's supervision. However, many applied instructors recommend that their students see a physician for a beta blocker prescription for performance anxiety (but not for hypertension for which the drug is FDA approved). Could an academician who has a student doing poorly justify recommending that he or she seek a Ritalin prescription to improve academic performance? The use of stimulants as a study aid has begun to receive attention. The use of these drugs for cognitive enhancement is also not approved by the FDA, but there has been evidence that they are indeed effective. An important recent study published in 2008 and titled "Illicit Use of Prescription ADHD Medications on a College Campus: A Multimethodological Approach," in Journal of American College Health is among the first to expose the alarming prevalence of illegal use of drugs for cognitive improvement:

The biggest barrier to prevention efforts, however, may be the professed effectiveness of the drug itself. Almost all participants claimed that ADHD medications were highly effective in increasing their attention span, making work more interesting, improving their cognitive abilities, and fighting fatigue. With the multifaceted demands placed on college students (eg, grades, social life, finances) and the increasingly competitive workforce that awaits them after graduation, these students believe they have found the "magic bullet." "It works!" explained Lisa, a senior premed major. "Why wouldn't you use it if it works? The stuff is great. Great!" We are left to wonder, therefore, how to persuade students not to take stimulants that are so soundly praised for their effectiveness in a culture that increasingly justifies the means by the ends.

Various medications have been proven to be effective in improving cognitive function, and more students are turning to them as a resource for improved academic performance. In effect, a "win at any cost" mindset can be seen in music, sports, and academics.

Conclusion

Educators must succeed in multiple roles, including serving as mentors, role models, and distributors of knowledge. In providing students with contemporary and accurate research, a music educator's responsibility includes referring students to information on performance anxiety and multiple approaches to mitigating stage fright. Students should be well informed of the risks and rewards of any method that reduces performance anxiety. However, caution is recommended to educators who consider recommending beta blockers or other medicines to students. Not only should direct recommendation (which is medical advice) be left to qualified physicians, but indirect recommendations may be just as problematic too. As mentors, applied faculty often provide their own life experiences as a means of instructing their students. However, educators who share personal experiences using beta blockers could be understood as directly recommending the drugs, and this warrants great caution.

Paradigm shifts and increased litigation on America's university campuses signal that even greater care must be taken to introduce students to ethically and medically sensitive subject matter within a well-informed context: one that includes a broad sampling of literature representing diverse opinions. This kind of diligence will provide well-meaning instructors the greatest protection should they believe a student will benefit from the use of beta blockers. Perhaps exposing students to the prevalence of beta blockers within the context of a pedagogy course or even an ethics course in music provide the necessary safeguards. In these instances a broad context is given that includes both benefits and side effects of the drugs. This is preferable to presentation in the confines of an applied studio where mentioning beta blockers could be interpreted as endorsement of performance enhancement drugs. AAUP supports the academic freedom needed to address this difficult topic:

Teachers are entitled to freedom in the classroom in discussing their subject, but they should be careful not to introduce into their teaching controversial matter which has no relation to their subject. Limitations of academic freedom because of religious or other aims of the institution should be clearly stated in writing at the time of the appointment.

Clearly, the subject of beta blockers for performance anxiety does have relation to the subject of music performance; however, knowing relevant policies established by one's institution is critical in making informed decisions. Unfortunately, not only do these policies change over time, but administrators and legal counsel are not likely to provide clarity regarding specific policies both because they do not want to limit academic freedom and these officials are not able to predict what kinds of legal challenges may arise. Moreover, the legality of medical use of drugs often rests in the interpretation of the law, and these issues can be challenged in court. As a result, applied faculty that endorse beta blockers or are interpreted as endorsing beta blockers may be doing so at their own risk.

Bibliography


The Ethics and Legality of Beta Blockers for Performance Anxiety


Notes

1 Goodman and Gilman, The Pharmacological Basis of Therapeutics, 478.
2 Zycher and Dimasi, "The Truth about Drug Innovation."
3 Brantigan et al., "The Effect of Beta Blockade on Stage Fright," 227.
4 Hall, "A Cure for Stage Fright?", 1.
5 "Concern Over Widespread Use of Beta-Blockers." 2.
6 "The Use of Beta Blockers by ICSOM Musicians," 4.
7 Harby, Kucharski, Tuck, and Vasquez, "Beta Blockers and Performance Anxiety in Musicians."
9 Beeching, Beyond Talent, 225.
11 Ibid.
13 Jaspers, "Off-Label Use of Prescription Drugs."
15 International Conference of Symphony and Opera Musicians. Code of Ethical Audition Practices.
The Ethics and Legality of Beta Blockers for Performance Anxi...

http://symposium.music.org/index.php?option=com_k2&view=...