

# An Overview of Sport Psychiatry

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***Objective:** Although the application of psychiatric methods and principles to sports is relatively unsystematic at this time, athletic behavior presents several issues of interest to psychiatry. The aim of this paper is to provide a framework for understanding the developmental, occupational, pathologic, therapeutic, and research aspects of sport psychiatry. **Method:** Studies in psychiatry, psychology, and psychoanalysis provide the basis for this overview, and nonscientific works are cited where they illuminate various issues. Illustrative case examples are also reported. **Results:** It is proposed, but not proven, that athletes undergo phase-specific development and that they may suffer impairments in adapting to the athletic context. This context may also modify treatment modalities. **Conclusions:** There is a need for more clinical studies of athletes, especially in the realms of childhood traumas, competitive issues, and mental illnesses. Because of the close relationship of mental and physical phenomena in sports and because athletic behaviors are often precisely measurable, athletics may constitute a fruitful area for psychiatric research.*

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In the 1920s, an educational psychologist at the University of Illinois, Coleman Griffith, first applied the principles of psychology to sports (1). His work stood alone for several decades, until sport psychology was again taken up by Ogilvie (2) and others (3-5). Today, sport psychology is a comprehensive discipline, with journals (*Journal of Sport and Exercise Psychology*, *International Journal of Sport Psychology*), graduate programs (6), national and international societies (7), and numerous textbooks (8-10).

Compared to psychology, psychiatry has so far devoted rather little attention to sports. Beisser's pioneering case studies of athletes in therapy (11), published in 1967, raised interesting questions regarding the psychotherapy of athletes and the impact of athletics on the personality. Arnstein (12), in 1976, discussed some of the emotional problems of adolescent athletes. More recently, psychiatrists have published work on such topics as clinical guidelines (13), the conceptual underpinnings of sport psychiatry (14), obligatory running (15), and the psychiatric effects of anabolic steroid use by athletes (16, 17). These papers are few, however, and while they highlight several psychiatric issues in sports, they do not constitute a systematic body of knowledge.

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One related area receiving greater attention by psychiatrists is the use of exercise as a therapy for anxiety and mood disorders (18-20). Both individual case studies (21) and efficacy trials (20) have been reported. However, according to Morgan (22, 23), who has reviewed this work, the therapeutic benefits of exercise cannot as yet be claimed with certainty. Altshul (24) came to the same conclusion on clinical grounds. In any case, exercise therapy for psychiatric disorders does not represent an application of psychiatric methods to the field of sports per se, so in this respect it is peripheral to the field of sport psychiatry. As Massimino said, "The primary role of the sport psychiatrist must be a clinical one: to prevent, diagnose, and treat the psychiatrically related medical issues confronting the athlete" (13, p. 56).

In principle, psychiatry may contribute to sport medicine. Ours is a science that studies mind-body relationships. Our biopsychosocial perspective may lend itself to the study of such problems as recovery from injury, healthy and unhealthy aspects of competition, the relationships between psychological functioning and athletic performance, and the effects of athletic activity on neuroendocrine function.

For example, several studies (25, 26) have shown a significant correlation between life stress and the frequency of athletic injury. In one report (27), the personality characteristics of hysteria and hypochondriasis, as measured by the MMPI, adversely affected recovery from knee surgery. The role of parental influence in the genesis of competition anxiety in children participating in sports has also been pointed out (28-30). The behavioral, analgesic, and cardiovascular effects of exercise have been linked with

endogenous opioid systems in rats (31), and in humans the calming effect of aerobic training may be reversed by naloxone (32). The cognitive variable of field dependence/independence has been related to performance in basketball players (33). All of these findings are suitable for further study from a psychiatric perspective.

In the last decade, psychiatric involvement in sports appears to have grown. Faced with drug abuse, professional sports has sometimes sought the help of psychiatrists (34). Psychiatrists have also been called on to facilitate performance (13). The American Academy of Sports Physicians has established a sport psychiatry committee, and one medical school has set up a formal program in the field within its department of psychiatry (35). These are appropriate developments for sport medicine, especially since the services of sport psychology are often administered by practitioners with little or no clinical training (36).

In this overview I attempt to integrate the findings and ideas of various observers of sports with the basic principles of clinical psychiatry. Although sport psychiatry is in its infancy, this heuristic attempt to define its boundaries is meant to facilitate and encourage further work in the field.

#### DEVELOPMENTAL PERSPECTIVE

The epigenetic theorem of behavioral science states that the capacities of the human being unfold in a sequence of stages, each stage building on the preceding ones and providing a foundation for the stages that follow. This theorem has been elaborated by Freud, for libidinal development (37); Erikson, for identity formation (38); Piaget, for cognition (39); and Lidz, for personhood (40). For athletic development, similar epigenetic schemes have been proposed (14, 28). Although these schemes are preliminary constructs with little empirical validation, they aim to place athletic activity within the context of normal human development.

A hypothetical first stage, from birth to approximately age 3 years, is thought of as the age of emergent body narcissism, in which the future athlete discovers the body's potential as an instrument of pleasure, experiment, and discovery (14, 28). Children's spontaneous motor behavior, as well as the enjoyment of such passive activities as swinging, inversion, and the like, promote an appreciation of physical play (28). Although children may imitate aspects of sporting behavior before age 3, they do not yet understand the rules of society's games (28).

A hypothetical second stage, corresponding to the Oedipal years, is thought to be important for the emergence of competitive strivings (14). The pre-Oedipal child's struggles of will evolve toward an interest in competition for its own sake. Although at this age children enjoy beating opponents in quasiathletic contests, they may not as yet be concerned with winning as it is defined in true sports, as the following example illustrates.

*Case 1.* A group of 4- and 5-year-olds ran a 50-meter race. One child, running faster than the others, looked behind her

for a rival. She slowed down to allow the rival to catch up to her, whereupon she resumed running fast and pulled ahead. She then looked for another opponent, and then another. In this way, moving side to side as well as forward and back, she achieved several victories in a single race. Although she came in second by standard measures, this did not appear to dampen her satisfaction.

In a third stage of athletic development, corresponding to the latency years, children spontaneously organize their own athletic contests (14). The progress in athletics during latency is thought to depend on cognitive maturation (14), specifically the development of concrete operations (39), which enable the child to understand such notions as position, follow-through, and generalized rules (14).

For example, to run past a finish line, rather than stop just at the line, as preoperational children tend to do, children must possess a notion of "reversibility" and understand that their actions after a race is over affect the outcome of the race itself (14). Similarly, achieving a notion of "conservation" (39) enables latency-age soccer players to maintain position, rather than swarm to the ball, as preoperational children often do.

On the whole, latency is thought to be a crucial time for the athlete's learning about how things work, including basic techniques, rules, and social roles (28). Latency has therefore been termed the age of "playground conditioning" (14). Because it is the age in which children first understand true sports, it is the age that is most studied in the field of youth sports (10, 41, 42).

During the next hypothetical stage of development, adolescence, athletics become imbued with passion and idealism (14, 28). Although preadolescents are happy about winning and disappointed about losing, they may not yet experience the emotional upheavals of teenage athletes (12). In particular, sexuality and self-esteem become especially important for athletes in adolescence (12).

The development of body narcissism, competitive strivings, playground conditioning, and passion and idealism prepare the person for athletic maturity (14). For those who reach this final stage, athletic training appears to become more systematic and creative than it had been before (14).

These hypothetical stages await experimental verification, but they help us to understand certain frequently noted problems in youth sports. Martens (43), Lewthwaite and Scanlan (29), and others (28, 42) have called attention to the potential of sports for generating unwelcome anxiety in young people. Often this is said to result from inappropriate adult behavior. From a developmental perspective, this behavior may represent a premature insistence on athletic attitudes for which the child is not yet ready. Latency-age children may be expected to sum up the fervor of adolescence. Five-year-olds may be subjected to mature training methods. The following case illustrates that attitudes appropriate to athletes in adolescence may be encouraged in children as young as 3.

*Case 2.* Although Max, a football coach, was a basically gentle man, he continually urged his players to display a "kil-

ler instinct." Max frequently brought his son Benjy, who had just turned 3, to practice. Although the child ran and played freely with various people at the field, he never smiled and always maintained an expressionless face.

At home with his family, Max played with his son after dinner. As he did with his players, Max persistently urged Benjy to "look mean" and modeled an angry face. The child appeared confused by the command, but after several tries adopted a distorted look that was part grimace, part fright. He appeared confused about the expressive functions of his facial muscles.

The developmental perspective may also help us to think about the impact of adults' increasing organization of youth sports. In the last 25 years there has been a major shift in athletic settings for children, from self-organized playground games to leagues organized by adults (44). Although youth sport leagues provide many opportunities for youngsters and their families to participate, spontaneous games provide opportunities of a special kind.

We know the importance of latency for socialization processes (40). In their spontaneous games, youngsters experiment with solutions to such problems as how to deal with winning and losing, how to adapt to a displacement in the social hierarchy, and how to resolve conflict. When play is disrupted by a heated dispute over the rules—for example, whether or not a given action constitutes a foul—it may be unwise for an adult to quickly resolve the matter in the interest of resuming play. As Piaget explained in his study of morality (45), for which he used as subjects children playing marbles, in disputing the rules the contestants are constructing them by refining and comparing their personal notions with the notions of their peers. The problem of how to preserve spontaneity and opportunities for psychological growth within organized youth sport leagues is one that sport psychiatry might well consider.

#### PSYCHODYNAMIC FACTORS IN SPORTS-RELATED PROBLEMS

Although sport psychiatry is too young for a formal nosology, the sports-related problems that have been identified may be divided into five categories. These are 1) sudden performance failure ("choking") (46, 47), 2) prolonged performance failure (slump) (48), 3) emotional factors that contribute to injury (25, 26) or prolong recovery from injury (27), 4) interpersonal problems with coaches and teammates (2), and 5) training problems of various kinds, including those relating to retirement (11, 49).

This division is one of convenience, and there seems to be a degree of overlap. For example, Nicholi (50) reported how interpersonal problems can prolong the poor performance of a team, and Ogilvie and Tutko (2) observed that a "choking" athlete may come in conflict with a coach. A severe injury may bring retirement issues to the fore (51). Since there have been no epidemiologic studies of these problems, it is impossible to say how prevalent they are among athletes.

Mahl (52) elucidated the role of psychological conflict and defense in the genesis of a wide variety of behaviors. The person in conflict "is prompted simultaneously by incompatible response tendencies" (52, p. 20). The various defenses result in "avoiding or decreasing the aversive motivational state" and "avoiding or mitigating a perceived or anticipated danger situation" (52, p. 40). Ogilvie and Tutko pointed to the role of an unconscious fear of success in some cases of athletic failure (53), and as Mahl (52) pointed out, defenses may also serve to mitigate objectively painful situations. The following case illustrates how psychodynamic conflict may lead to a sudden performance failure.

*Case 3.* An 18-year-old high school senior was playing second base for his baseball team in the state championship game, the last game of his high school career. With his team ahead by one run in the bottom of the ninth inning, with runners at first and second bases and two outs, he fielded an easy ground ball. He elected to throw the ball to his shortstop, covering second, for the out that would have ended the game and given his team the championship. Although it was a throw he had completed countless times in his life, this time he threw the ball over the shortstop's head, into left field, enabling one runner to score. On the next play the opponents scored again and won the game.

As he had prepared for this game, the athlete's conscious focus had been wholly devoted to achieving victory. But because he possessed only average talent, he could not look forward to playing in college, and therefore, as he laced his shoes, practiced batting, and ate his pregame meal for the last time, he was inwardly grieving the loss of the sport he loved. To complete the crucial throw was equivalent to ending his career, something he would not do without conflict.

The following example illustrates how psychodynamic factors may prolong recovery from an injury.

*Case 4.* A college sprinter, in her second year of school at an institution far from home, was discouraged by the failure of her hamstring injury to heal in spite of standard rehabilitation measures. She was thinking of quitting her sport, but if she did she would lose her college scholarship, and she felt that her mother would then be angry with her. She reported that a friend of hers had had "the same thing" happen in the previous year, and the friend had quit and returned home. When asked, the sprinter reported that the friend's mother had been happy to have her daughter home. She then admitted, with some relief, that her own mother missed her and she missed her mother and that a reunion would be a welcome event. This athlete's longing for her mother conflicted with her desire to return to training.

Psychodynamic factors may also contribute to problems between coaches and athletes. The coach may be perceived as a surrogate parent by the athlete (54). In individual sports especially, the athlete-coach relationship may be among the most intimate in the lives of both parties. The intense consideration given to the functioning of the athlete's body may kindle transferences not unlike those in psychotherapy, except that these transferences are usually unexamined. According to Freud, "Psycho-analytic treatment does not create transferences, it merely brings them to light" (55, p.

117). Both sexual acting out and outbreaks of unmanageable hostility sometimes occur.

As always, it is advisable to evaluate each instance of sports-related difficulty before coming to a diagnosis (13). Not all performance syndromes are related to psychodynamic factors, as the following case illustrates.

*Case 5.* A basketball player who too frequently committed senseless fouls and made poor passes at crucial moments appeared to have no motive for doing so. He was happy with his team, his coach, and his general circumstances. It was observed that on one occasion he did precisely the opposite of what his frantic coach instructed from the sideline. Upon further history it was revealed that, until his late teens, this athlete needed to reverse his shoes before putting them on, in order to perceive, concretely, which of two possible arrangements was the best one. He also suffered from symptoms of dyslexia in speech and writing. When the coach said, "Don't foul" or "Don't throw it away," the athlete was confused by the negative construction. The coach was advised to use positive linguistic framing, which quickly alleviated the difficulty.

Nicholi (50) and Collins et al. (34), among others, have mentioned the reluctance of athletes to acknowledge emotional vulnerability. Defensive denial of the psychological sources of trouble may take the form of euphemisms, such as "head case" and "brain lock," or excuses. The following is an example of such a case.

*Case 6.* A distance runner explained her repeated slumps as being due to a series of hard-to-diagnose physical conditions: ferritin-deficiency anemia, diffuse intravascular candidiasis, and "overtraining." With each diagnosis came a torrent of bitter recrimination at the medical community for failing to diagnose her problem earlier.

The athlete in a slump may resort to magic and superstition (56), reflecting a belief, akin to our own, that the source of the trouble lies outside conscious control. Perhaps, as Beisser suggested (11), it is the intangibility of thought, an opponent against which no concrete action can be taken, that leads to athletes' reluctance to acknowledge psychological sources of failure. But this question has not been well studied, and it is not known whether athletes' attitudes toward their own psychological dynamics are any different from those of non-athletes. For the time being, it seems best to treat the athlete's skepticism with the same consideration we have for any resistance (57).

The psychodynamic aspects of sports-related problems may be similar to those that contribute to some defined mental disorders. For example, "choking" may be analogous to panic disorder, and adjustment disorder may present as a slump. Without further study, the construction of a formal nosology in sport psychiatry is premature.

#### POSSIBLE OCCUPATIONAL SYNDROME

Lay observers have asserted that society exerts a harmful influence on the personality of the exceptional athlete, fostering tendencies toward violence, promis-

cuity, and grandiosity. Telander (58) and Bissinger (59) documented in journalistic works the effects of corruption and degradation on young star athletes. As long ago as the fifth century B.C., Euripides opined, "Of all the countless evils throughout Hellas none is worse than the race of athletes. Slaves of their belly and their jaw they know not how to live well. . . . I blame the custom of the Hellenes who, honoring useless pleasures, gather to see such men" (60).

In a thoughtful account of his life in professional basketball, Bill Bradley (49) discussed society's tendency to both worship and condemn its athletic heroes, and he said that as a result the athlete's "sense of identity is insufficient" (49, p. 123). Similarly, I have referred to the "hollow identity" of some professional athletes (14).

Although Ogilvie and Tutko (61), in a nonreviewed publication, expressed the view that whatever personality traits successful athletes display are the result of a "ruthless selection process" (61, p. 61), occupational psychiatry has known since the work of Sherman in 1927 (62) that an individual's adaptation to his or her job is a complex process. There may be a number of factors within the biopsychosocial matrix of an exceptional athlete's life that promote aggressivity, promiscuity, and narcissistic vulnerability.

Nicholi (50) mentioned the struggles of his professional football players with unmanageable aggression, citing violent nightmares as a symptom. He attributed this to a kind of posttraumatic stress disorder, although in his subjects it may also have been a consequence of the use of anabolic steroids, which sometimes promote aggressive behaviors (17). It is also possible, as Bradley seemed to suggest, that in adapting to idolatry the athlete becomes increasingly grandiose and in adapting to degradation he becomes increasingly insecure.

An additional factor may be the fact that the social pressures on professional athletes act within a particular phase of the life cycle. At an age when, according to Erikson (38), a young adult is establishing methods for handling the dilemmas and commitments of intimacy, the professional athlete is also thrust forward into complicated tasks normally characteristic of the later stage of generativity. The predictable apprenticeship that young adults initially enjoy in their professional lives is a luxury denied the professional athlete, whose career depends on immediate output. This condensation of stages may be overwhelming to the person, as Nicholi described (50), and as a result the athlete may remain mired in regressive patterns of behavior that one former athlete called "terminal adolescent syndrome" (63, p. 6).

Another possible factor is athletic training itself. The training that characterizes athletic maturity is strongly narcissistic. The extreme devotion to one's body ensures this. It is possible that athletic training, which is ego-syntonic, shapes other aspects of behavior as a kind of inappropriately applied template, promoting grandiosity and entitlement in human relations and a preoccupation with physical satisfaction. The result of such a process is illustrated by the following example.

*Case 7.* A recently retired professional baseball player returned to his alma mater to carry out certain obligations as a prominent alumnus. A religious man, he was married to an attractive professional woman and worked in the field of human services.

In the evening, he went with some old friends to a nightclub, where his presence was announced from the stage. From his seat he fastened a hard, predatory stare on a woman sitting at a neighboring table with her male companion. After what appeared to be a wordless, visual rape continued for some time, the boyfriend rose from his chair to approach the athlete's table. Instead of the challenge that the whole gathering expected, the boyfriend asked for the athlete's autograph and shook his hand. Afterward the athlete explained his practice of compulsive seductivity as something he learned in professional baseball. The sanctioning of his behavior in the nightclub repeated a pattern that occurred many times over, in various ways, during his career.

In the *Iliad*, Homer provided a vivid description of a narcissistically wounded athlete (64). Achilles, the great runner, was described as a ruthless, arrogant killer. He was the sacker of 12 cities and king of the Myrmidons, known not only for their violent and rapacious inclinations but also for their love of sports. His only vulnerable spot was his heel, by which his mother had held him when she dipped him in the river Styx.

When King Agamemnon took away one of his female prizes, Achilles sulked, refusing to join the battle for Troy, nursing his grudge, and repudiating offers of amends. It was not because of longing for the woman that he pouted—he had women by the score—but rather because of his wounded pride and “bitter humiliation” (64, p. 171). As Achilles pouted, his savage but idle Myrmidons played sports: archery, discus throwing, and chariot racing.

Without further research we are not yet in a position to say whether the problems of professional athletes represent anything more than cluster B personality variants (*DSM-III-R*). But if it turns out that a constellation of aggressivity, promiscuity, and narcissistic grandiosity and vulnerability is in some way an occupational hazard for professional athletes, as lay observers tend to believe, we may somewhat whimsically term this constellation “the Achilles complex” after that ancient athletic king.

#### MENTAL ILLNESS IN ATHLETES

Several reports have addressed mental illness among athletes. Beisser (11) reported in detail seven cases of severe illness. Coleman (65) discovered more than 70 cases of suicide among active and retired professional baseball players. In a presentation at the 1987 National Conference of Sport Psychology sponsored by the United States Olympic Committee, James McGee, Ph.D., estimated that 34% of the 250 athletes in one professional sport organization qualified for a substance abuse diagnosis according to *DSM-III-R* criteria.

An attempt to distinguish mental illness among athletic individuals from mental illness among nonathletes

was made by Little (66). In a series of 72 men consecutively referred to an outpatient psychiatric clinic, he found that patients who scored high on a scale of athleticism differed from those who did not in several respects. Compared with the nonathletic group, the athletic group displayed more somatic symptoms, better premorbid mental health, and more disorders precipitated by injury or physical illness.

In all of the reports except McGee's the preponderance of subjects were past their athletic prime. There may be several reasons for this. First, it has been suggested (11) that for some people athletic participation may serve as a defense against problems of self-esteem, which become apparent when the athlete retires. The palliative effects of sports may underlie their use as a therapeutic modality in hospitals (67) and their possible effects on mood (21).

Second, athletic behaviors sometimes resemble symptoms of mental disorder and thereby confound recognition of illness. Endurance athletes, for example, pay scrupulous attention to diet and leanness, are relatively hyperactive, and, in the case of some women, experience amenorrhea; for these reasons, they may resemble patients with anorexia nervosa (15). Like Binswager's patient Ellen West (68), endurance athletes often keep detailed diaries. It is possible that coaches of anorexic athletes misinterpret a person's pathological behavior as devotion to training. A preliminary study of body image among marathon runners (69), however, failed to show body image distortions such as those seen in the disease.

A third possibility is that a tendency to idealize athletics leads observers to deny the existence of psychiatric symptoms. One psychiatrist failed to observe any signs of anxiety among a group of professional football players in treatment for drug abuse (34). In his treatise *Sport: A Philosophic Inquiry*, Weiss defined athletes as “excellence in the guise of men” (70, p. 17). To the extent that such a definition is unconsciously shared by clinical observers, it may be expected to interfere with the perception of signs of illness.

Until more case studies of athletes are reported, it will be difficult to draw conclusions about the possibility of distinguishing pathological characteristics among various athletic populations.

#### TREATMENT ISSUES

Although published accounts of the treatment of athletes are few, the treatment modalities that have been used are diverse. In 1928 Deutsch (71) reported a psychoanalysis with an athlete, in which she attributed the patient's talent for ball games to unresolved castration anxiety. Psychotherapy (11), group therapy (34, 50), a family systems perspective (72), and pharmacotherapy (73) have been applied. In addition, behavior therapies developed by sport psychology to enhance athletic performance have been used by psychiatrists (13, 50). A nonclinical but interesting phenomenologic approach to training was reported by the philosopher Herrigel (74).

Since the literature is meager, it is not possible to formulate at this time which modalities are appropriate for which problems under various conditions. But our treatment approach may be modified on occasion by the athletic context. For example, an episode of anxiety that might be relatively minor if it occurred in the context of another activity might require urgent attention if it occurred in an athlete facing imminent competition. In providing consultation to teams, it may be necessary to conduct interviews in unusual settings, such as on the sideline or on the team bus (75) and to be respectfully aware of the informal "treatment" that coaches often give players on athletic teams.

The effects of medication on athletes in training is an uncharted area, and caution should be used in prescribing some psychotropic medications because of their effects on vision, coordination, and cardiac function (76). For example, medications that affect visual accommodation may be safe for an interior lineman in football but hazardous to a baseball player.

The psychiatrist should also consider performance variables in prescribing medications. In addition to ECG effects, there have been reports of negative inotropic responses to phenothiazines and tricyclics (77). Thus, these medications may be expected to impair performance in endurance sports in which cardiac output is maximal. One report (78) indicated that cardiovascular performance assessed during treadmill exercise testing is not affected by long-term lithium therapy. Buspirone, which is minimally sedating, may be a useful choice in treating anxiety. Finally, it should be kept in mind that some medications are illegal in some sports. Beta blockers, for example, are forbidden in archery.

Therapeutic eclecticism is sometimes appropriate for the treatment of sports-related problems. The following example illustrates how psychodynamic principles were used in constructing a behaviorist script.

*Case 8.* A recreational downhill skier was troubled by his inability to ski freely down the fall line and his tendency to ski laterally back and forth in great controlled loops. He found this particularly embarrassing on ski trips with corporate colleagues, feeling that it revealed a lack of manliness and courage. He requested instruction in relaxation and rehearsal techniques.

As a youngster he had been discouraged from skiing by his father, who regarded it as an "upscale," "WASP" sport that was inappropriate for his son. Further examination of his history revealed troubling competitive themes, and this psychodynamic information was used in constructing behavioral rehearsal scripts. He was told to imagine himself sharing a lift with a confident, blond Adonis figure who, on the ride, ridiculed skiers taking broad, transverse loops. As his anxiety rose, he was asked to imagine himself giving his companion a karate chop to the Adam's apple, throwing him off the lift, and whisking by his crumpled figure on the way down. His joyful indulgence of this fantasy in the office seemed to loosen his inhibition on the slope.

It might be expected that competitive themes would be prominent in psychiatrists' psychotherapeutic relationships with some athletes. The frequency of such

themes is not known, but the following example illustrates a therapist's experience of feeling played with.

*Case 9.* A baseball pitcher sought therapy for, he said, "a problem I am having." He did not say explicitly what this problem was, but over the course of four sessions he threw out various tantalizing suggestions, each of which was followed up by the psychiatrist, without result. After four meetings the patient ended the work. The psychiatrist still had no idea of why the athlete had come to see him and felt as if he had been thrown a series of difficult verbal pitches.

Countertransference issues may also be influenced by the athletic context. A psychiatrist who is a sports fan may derive vicarious gratification from the exploits of the patient. A psychiatrist may prescribe controlled drugs in the interest of enhancing performance (75), may give pregame pep talks (50), and may appear at press conferences to explain a patient's treatment (79). The psychiatrist may overidentify with the athlete in ways the athlete does not appreciate, as suggested by the following example.

*Case 10.* A divorced champion Olympic discus thrower was returning to training after several years of retirement. He consulted a psychiatrist to discuss his feelings about being single again after a number of years of marriage and his anxieties about dating.

One day, in a discussion of his training, the athlete mentioned certain problems he was having with "bending and blocking." The psychiatrist compared these problems with his own difficulty in bending over to field ground balls in his softball games. "Bending" and "blocking" are technical terms in discus throwing, and the patient felt the doctor was seeing a similarity between them that did not exist. He felt misunderstood and in response stopped his therapy.

In adapting treatment to the athletic context, it is important not to forget basic principles. If one important clinical task in general psychiatry is to listen empathetically to the patient's troubles, then we should do so in sport psychiatry. Skilled listening is one feature that distinguishes our work from that of other areas of sport medicine. An interesting account of the importance of listening to athletes can be found in one of the earliest works of Western literature.

In the *Odyssey* (80), Homer described how King Alcineus, observing the tears of Odysseus during a welcoming banquet, suggested that the gathering engage in sports to lift the mood of his athletic guest. Although Odysseus quickly became playful and energetic during the games, his bleak mood soon returned when they were over. Perceiving his "relapse," Alcineus then tried what psychiatrists try first: "Explain to us," he said, "what secret sorrow makes you weep . . . for a sympathetic friend can be quite as dear as a brother" (80, p. 138).

## DISCUSSION

Although an estimated \$4 billion is spent annually on sport medicine services (81), the study and treatment of

athletes by psychiatry is still in its infancy. A significant contribution of sport psychiatry to sport medicine will depend on an expanded clinical literature. Of particular interest are cases in which children have been traumatized and cases in which adult athletes have suffered sports-related problems. Cases in which athletes are treated for psychiatric disorders are important for integrating sport psychiatry into the mainstream of clinical practice. In addition, consulting work with athletic teams, whose primary mission is to win, needs to be reported on and understood in the context of community psychiatry and group therapy.

The question of how psychodynamic factors influence performance is also of interest. The full expression of aggression seems to be essential for athletic success (82). But we sometimes observe that a particularly good competitor—that is, one who is not merely competitively disposed but, rather, performs best in the most important competitions—feels respectful and friendly toward the opponent. Such feelings were revealed in a private tape-recorded conversation between two heavyweight boxing champions, who were opponents but expressed a warm, admiring relationship (83). If it turns out that such an attitude is characteristic of other champion competitors, this finding could be of interest to our competitive society.

It is also possible that sport psychiatry may someday contribute to the understanding of mind-body relationships. In his book *Mind, Brain, Body*, Reiser pointed to a need for “conceptual templates” (84, p. 17) to link the study of neurotransmission and neuroendocrinology with psychoanalysis. He offered several hypotheses to explain how meanings may be transduced into biological effects, focusing especially on signal anxiety and the psychophysiology of stress (84). Even an advocate for “autonomous disciplines” as rigorous as Edelson can hope for an “eventual rapprochement between neuroscience and psychoanalysis” (85, p. 156).

In 1973 one of the pioneers of sport medicine, Ernst Jokl, discussed the “physical structure of mind” and concluded that “in as far as it encompasses the search for attachment of mind to the body, science tells us nothing” (86, p. 16). Since then, our understanding of the biological basis of mental disease has advanced greatly, but it is perhaps fair to say that the integration of this knowledge with such psychoanalytic concepts as primary and secondary process, unconscious conflict and defense, and psychic structure awaits the appropriate conceptual templates.

Since Jokl’s work, sport science has continued to touch on the possible connections between symbolization and biology. Morgan (87), for example, found that hypnotically induced perceptions of effort during exercise altered some aspects of cardiovascular function even when actual effort was invariant. Suinn (88), building on the work of Jacobson (89), observed electromyographic correlates of skiers mentally rehearsing their runs. In neuroendocrine research (90) it has been shown that circulating  $\beta$ -endorphin levels may under some circumstances rise in anticipation of an athletic event.

While these results do not define conceptual templates, they suggest that athletics may constitute an appropriate experimental field for studying the problem. If it were possible, for example, to identify some biological concomitants of such phenomena as “choking” and slump, and if it were also possible to elucidate some symbolic processes involved, then we might be on a useful scientific path. This is because in sports it is often possible to measure the performance effects of “choking” and slump quite precisely and in a well-defined context. But all of this for now is merely a hope that someday sport psychiatry, in its research, will contribute to the convergence of psychological and neural science.

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