Delphi Study: HIV/AIDS and the Athletic Population

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Abstract: Recent announcements in the news of HIV/AIDS contraction by famous sports figures have focused world attention on the fact that athletes are not immune to this deadly virus. In view of this, we reviewed the literature to examine what studies have been directed specifically at the athletic population and HIV/AIDS. Unfortunately, because of the relatively new nature of this problem, little data exists for examination. A panel of experts was assembled to participate in a Delphi methodology project. This educational study was designed to examine three issues surrounding the athletic community and HIV/AIDS. The three questions examined in this study were: 1) should medical testing be undertaken within the athletic community to determine exposure to the virus; 2) if testing is undertaken, what privacy/confidentiality measures should be incorporated to protect the individual and the results of the test; and 3) what educational interventions should be developed and implemented to help the athlete understand the disease and prevent the spread. The responses from the Delphi participants indicate that the HIV/AIDS dilemma is a societal issue and should not single out a segment of the population—in this case

the athletic community. The panel also indicated that privacy and confidentiality are crucial in protecting the individual athlete and test results. The development and implementation of educational interventions is the most important component in the entire issue of HIV/AIDS and the athletic community.

thletic competition occasionally results in injury to the participants. Some of these athletic injuries expose the participants, officials, and support staff to bodily fluids. Recent developments have caused worry by those involved in athletic competition as to the safety of the participants and the possibility of transmission of infection as they relate to the HIV/AIDS dilemma.^{1,2,5,9,10,14–16,19,29} One aspect of this problem is the amount of knowledge versus myth that surrounds this virus.^{3,9,12,17,21,23,25,28,33,36}

There have been a number of studies undertaken that have addressed the issue of HIV/AIDS, but only recently have groups (ie, National Football League and NCAA) specifically targeted the athletic communitv.^{12,13,27,28,31,33,35} There have been projects that have studied the college student, IV drug users, and homosexuals.^{3,5,7,11,13,21,25,26,34} While these studies are important and valuable, they do not address the particular characteristics of the athlete and the scrutiny involved with the sport community. The athletic community is under the watchful eye of the news media, drug-tested, and held to a different standard of conduct.

This Delphi study examined the specific issues of the athletic commu-

nity as they relate to HIV/AIDS. The project addressed three principle issues: testing for the virus, privacy/ confidentiality of test results, and educational interventions.

Methodology

The Delphi process is an iterative procedure for eliciting and refining the opinions of a group of experts by means of a series of individual questions. This process is characterized by three items: anonymity of the respondents, iteration, and controlled feedback.^{7,24,38} Data was collected three times in this study. The Delphi study was conducted over a 6-month period. This study was designed to explore three components of the HIV/AIDS dilemma as each relates to the athletic population. The three issues addressed in this research study were testing, privacy/confidentiality of test results, and educational strategies.^{2,4,9,10} The participants were asked to rate the relative importance of each question using a 5-point Likert scale: 1) Extremely Important; 2) Very Important; 3) Important; 4) Not Very Important; and 5) Not Important. After respondents completed the Likert scale, they were given the opportunity to respond to any question, add questions, delete questions, and/or make general comments about the instrument.

The 16-member panel was selected on the following hierarchical criteria: expertise in field of health care, involvement with the athletic population, and national recognition in the health care profession. The panel included 12 certified athletic trainers (minimum of 10 years on-field experience), three medical doctors (active with sport teams as either team physicians or consultants), and one nationally recognized professional athlete (active in the HIV/AIDS fight). Each participant received identical directions, the questionnaire, and information. The first round material included an overview of the study, directions for respondents, the questionnaire, and fee paid return mailer for the completed instrument. Once the first round was completed, the

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panel proposed six additional questions in the testing section, eight questions in the privacy/confidentiality section, and five questions in the educational section. The first round gave direction and served as the starting point for the continuation of the study. All respondent's comments were recorded and included in the second round mailing. The second and third rounds were conducted in a similar manner. The overall response rate, for the completion and full participation of the respondents, was 80%.

A Delphi study is based on the premise that the panel is composed of experts in the profession. The responses and comments, additions and deletions, and incorporation of new information allows for a descriptive analysis throughout the project. Therefore, the only hard statistical information that is appropriate is the mean for each question on the final round of the study.^{24,30} The final survey instrument is presented in the three sections of: testing, privacy/ confidentiality, and educational interventions along with the mean and standard deviation of each statement.

Results

The responses from the respondents were grouped into three tiers. The first tier represented the "extremely important" considerations in the testing versus nontesting issue. Two ideas emerged from this group: 1) testing should be done in accordance with existing state and federal laws, and 2) testing of those athletes who request to be tested. Two statements stood out in the second tier, represented by "very important" or "important." The first was to test those athletes that volunteer for the test and secondly to test those athletes in any established "at risk" group. From the breakdown of the third tier represented by "not very important" or "not important," it became obvious that no group of athletes should be subjected to the testing of HIV/AIDS just because of their participation in athletics.

Privacy and Confidentiality of Reporting Test Results

This section saw responses that could be divided into four tiers. The

first tier was identified by either the "extremely" or "very important" classification. These included the reporting of the test results to the athletes themselves and to those people held in confidence (doctors), those mandated by law (federal, state, or local health officials), or sexual partners (including significant others). The second tier was represented by the "important" classification. Groups or individuals that might receive test results in this category would include parents (especially if the athlete was under the age of 18) and other health care providers (university health center personnel and athletic trainers). The third tier included other athletic or educational institution personnel who have a relationship with the athletic population and represented by "not very important." The final tier of the privacy and confidentiality section, represented by "not important," was composed of only one group, the news media. The respondents were unanimous in this single category. The news media should not be notified of the results of a HIV/ AIDS test.

Educational Interventions

The responses are grouped into three tiers. The best intervention, from the experts' perspective, was the development of policies and procedural guidelines related to the HIV/AIDS dilemma and a combination of all other educational strategies and represented by "extremely important." The second tier identified the individual strategies that could function independently in the overall educational program. These educational interventions were represented by "very important" and would include films/videos, group instructional programs, pamphlets on responsible sex, professional counseling sessions for individuals, pamphlets on the HIV/AIDS virus (myths versus reality), AIDS telephone hotline, posters, moral/ethical counseling at home, and contraceptives. The third tier, represented by "important" included two additional alternatives: moral/ethical counseling at religious institutions and testimonials/guest speakers.

Discussion

The first section of the Delphi study addressed the issue of whether or not to test athletes for HIV/AIDS.^{1,19} The questions that were included in this section of the survey instrument are presented in Table 1. The most frequent comment on this issue was that the HIV/ AIDS dilemma is not an athletic issue but a societal problem, and the standards established for the society as a whole should be applied to the athletic population.^{6,9,11,18,20,25} There should not be double standards created just because of a person's involvement with sports.

The second tier of responses included those items that were considered "very important" in the testing of athletes. This includes "at risk behaviors" (unprotected sex and sharing of intravenous needles).^{5,6,18,29,34,35} The respondents then grouped the remaining statements into a third tier that consisted of either "important" or "not very important" concerns. There is not enough evidence to warrant HIV/AIDS testing, and the resulting implications would far outweigh the benefits to mandate the procedure. Even those athletes involved with high-risk sports should not be tested.^{1,9,14,19,36} High-risk sports are categorized by the National Athletic Trainers' Association, Inc (NATA) according to the susceptibility to sustain an injury during participation in that sport. Those sports that are classified as high risk by the NATA include: football, basketball, wrestling, lacrosse, hockey, gymnastics, volleyball, soccer, and rugby. In addition to the NATA categories, the United States Olympic Committee has established a system to categorize sports specifically on the risk of HIV transmission.

The consensus of opinion from the Delphi group indicates that there is not enough evidence to warrant testing based on athletic participation. This is supported in the literature by the lack of documented cases of athletes acquiring the virus through their participation in sports activities.^{1,2,9,10,14–16,19,22,29,36}

Privacy and Confidentiality of Reporting Test Results

The second part of the instrument addressed the issue of privacy and confidentiality of reporting test results. This section was completed under the assumption that testing was a standard procedure for the athletic population. The questions that were included in this section are presented in Table 2.

The reporting of medical test results is often governed by law. Certain groups or individuals have vested interests in medical test results, including parents, guardians, and health care providers. Legal considerations would need to be identified either through federal regulations or state statute as to the legitimacy of the release of this information to these groups.⁹ A second group would be: teammates, coaching staffs, athletic department officials, or university administrators. Although each of these groups have a direct impact on the athlete, the participants of this Delphi study felt that the classification of "not very important" be assigned to these groups regarding the results of a test for HIV/ AIDS. The final group was composed of the news media. The sensitive nature of this disease and the implications associated with the virus precludes the disclosure of the results to this group. Although the news media contends that they have the right to report the news, the athlete has the right to privacy and the confidentiality of a medical condition. The disclosure of any medical condition must be done voluntarily, on an individual basis, and by the person with the medical condition.⁹

Educational Interventions

The third component of the instrument addressed the critical issue of educational interventions.^{3,7,12,13,21,23,26,32,33} Although the athletic population was the focus of this study, the materials and interventions that were identified would be applicable to the general Table 1.—Delphi Study Questions and Responses (Mean \pm SD of 12 Responses) Concerning Testing Versus Nontesting (1 = Extremely Important; 2 = Very Important; 3 = Important; 4 = Not Very Important; 5 = Not Important)

All categories are prefaced with: "We should test . . ."

						Response
A. NO athletes	1	2	3	4	5	3.8 ± .9
B. Professional athletes	1	2	3	4	5	3.5 ± 1.1
C. Yearly	1	2	3	4	5	3.8 ± 1.0
D. ONLY high risk sports	1	2	3	4	5	$4.3 \pm .9$
E. ALL athletes	1	2	3	4	5	3.8 ± 1.7
F. Intercollegiate athletes	1	2	3	4	5	3.7 ± 1.4
G. Randomly	1	2	3	4	5	3.3 ± 1.6
H. Secondary school athletes	1	2	3	4	5	4.1 ± 1.2
I. Boxers	1	2	3	4	5	2.9 ± 1.4
J. Amateur wrestlers	1	2	3	4	5	3.2 ± 1.3
K. In accordance with existing state and	1	2	3	4	5	$1.4 \pm .7$
federal laws						
L. Athletes who request testing	1	2	3	4	5	1.6 ± 1.0
M. Athletes in defined "at risk" categories	1	2	3	4	5	2.6 ± 1.3
N. Quarterly	1	2	3	4	5	4.0 ± 1.2
O. Athletes who volunteer for testing	1	2	3	4	5	2.1 ± 1.2

population. The questions in this section of the instrument are presented in Table 3.

The institution must develop a comprehensive approach to the dis-

semination of information that will heighten the awareness of the athlete to the ramifications of HIV/AIDS and methods to avoid acquiring this deadly virus.^{1,2,9,15,19,37} Each inter-

Table 2.—Delphi Study Questions and Responses (Mean \pm SD of 12 responses) Concerning Privacy and Confidentiality of Reporting Test Results (See Table 1 for Key)

All categories are prefaced with: "We should make test results available to . . ."

						Response
A. Athlete only	1	2	3	4	5	1.9 ± 1.7
B. Team/family physician	1	2	3	4	5	2.5 ± 1.4
C. Head athletic trainer	1	2	3	4	5	3.3 ± 1.2
D. Parents of athlete	1	2	3	4	5	3.6 ± 1.5
E. Athletic director	1	2	3	4	5	4.6 ± .9
F. Teammates	1	2	3	4	5	4.7 ± .7
G. Head coach	1	2	3	4	5	4.5 ± .9
H. News media	1	2	3	4	5	5.0 ± 0
I. State and local health officials, if required	1	2	3	4	5	2.1 ± 1.2
J. University student health services	1	2	3	4	5	3.7 ± 1.0
K. Sexual partners including significant others	1	2	3	4	5	2.8 ± 1.3
L. University administration	1	2	3	4	5	4.8 ± .6
M. Parents, if athlete is under 18 years old	1	2	3	4	5	3.0 ± 1.5
N. Parents, if athlete is claimed on parent's tax forms	1	2	3	4	5	4.4 ± .8
O. Parents, if athlete is on parent's health insurance	1	2	3	4	5	3.6 ± 1.1
P. University health services, if for group data only	1	2	3	4	5	3.6 ± 1.1

Table 3.—Delphi Study Questions and Responses (Mean ± SD of 12 Responses) Concerning Education (See Table 1 for Key)

All categories are prefaced with: "We should provide the athlete with the following materials and interventions . . ."

						Response
A. Films/videos	1	2	3	4	5	$2.2 \pm .8$
B. Group instructional programs	1	2	3	4	5	$2.4 \pm .7$
C. Pamphlet on responsible sex	1	2	3	4	5	2.3 ± 1.0
D. Professional counseling	1	2	3	4	5	2.0 ± 1.0
E. Pamphlets on HIV/AIDS	1	2	3	4	5	2.1 ± .9
F. AIDS hotline	1	2	3	4	5	$2.6 \pm .9$
G. Contraceptives	1	2	3	4	5	2.6 ± 1.3
H. Posters	1	2	3	4	5	$3.3 \pm .8$
I. Policy and procedural guidelines related to	1	2	3	4	5	1.8 ± .8
HIV/AIDS testing						
J. Combination of A-I	1	2	3	4	5	1.8 ± .8
K. Moral/ethical counseling at home	1	2	3	4	5	2.5 ± 1.2
L. Moral/ethical counseling at church	1	2	3	4	5	3.0 ± 1.0
M. Testimonials/guest speakers	1	2	3	4	5	$3.3 \pm .9$

vention would present the athlete with methods of receiving information on the virus and ways to avoid transmission of the virus.^{7,12,21,23,25,26,32} This multiple method approach would expose athletes to vital information needed to become knowledgeable about HIV/AIDS and help modify behavior that would be considered "high risk" in the typical methods of the transmission of the virus. Finally, the overall consensus indicated that all interventions should be used in an effective and comprehensive intervention program.^{23,26,35}

Conclusions

Based on the results of this Delphi study, the experts suggest that athletes should not be singled out for HIV/AIDS testing. The consensus indicated that any testing be done within the framework of state and federal law. Athletes, as members of society, should have the ability to request to be tested if they feel that their particular activities have placed them in a "high risk" group.^{1,2,19} If testing of athletes for HIV/AIDS becomes a regular practice, then the following should be taken into consideration. Only the individual athlete should be notified of the results of his or her test. It then becomes the decision of that athlete to report his/ her test results to others. Until definitive studies indicate that HIV/AIDS is unquestionably transmitted through sporting contact, then the test results of HIV/AIDS must be treated as a medical issue and disclosure of results should not be available to athletic administrators. The indiscriminate reporting of HIV/ AIDS test results has far-reaching ramifications because of the associated moral and ethical issues surrounding the transmission of this virus. In this context, the Delphi panel of experts unequivocally responded that the news media should not be notified of test results.

The issue of education of the athlete and the deadly effects of HIV/ AIDS is the key to this entire dilemma. The respondents placed great emphasis on a diverse and comprehensive program of educating the athlete (and the general population). Myths and misconceptions surrounding the virus must be erased and facts must be presented. Interventions must be developed and implemented that address the activities that place people at greater risk of contracting the virus.^{3,10-12,23,26} Included are the sensitive issues of sexual activities and drug practices. These educational interventions must be targeted to diverse racial, ethnic, and religious groups. Consideration must also be given to age, geographic location, and economic status of the target populations in order to positively modify behavior.^{5,25,29,32,35}

This Delphi panel was asked to respond to only three areas of concern in the HIV/AIDS and the athletic population. Numerous other issues were not addressed within the scope of this project. Issues that need to be addressed in future studies include the reliability of existing HIV/AIDS tests, costs associated with testing athletes, moral and ethical questions on testing, and the realization that an athlete tested one day may well compromise those test results by engaging in sexual or drug-related activities the following day.

Further study needs to be undertaken to ascertain the HIV/AIDS dilemma and the athletic community from the perspective of the athlete. An instrument needs to be developed that will address the same issues that were presented in this Delphi study, except that the athletes should be the respondents in that study. Responses to additional issues such as the knowledge the athlete has of HIV/ AIDS, attitudes about AIDS, and demographics of the athlete will assist researchers to better understand the issue of HIV/AIDS and the athlete and provide another perspective that has not been explored.

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