Challenges and Opportunities in Psychological Skills Training in Deaf Athletes

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One group of athletes only recently receiving attention from sport psychologists is those who are deaf. Although these athletes have a communication disability, they participate in sport at all levels, from recreational sport participant to Olympic competitor. This paper reviews the literature on sport psychology and athletes who are deaf. Issues related to assessment of psychological skills with athletes who are deaf are explored through a study with 26 National Deaf Volleyball Tournament players, using the Psychological Skills Inventory for Sport. Finally, suggestions are offered for sport psychologists considering working with athletes who are deaf.

Organized sports for deaf athletes were formally established in 1924 with the inception of the Comité International des Sports de Sourdes (CISS). This International Committee of Sports of the Deaf was created for deaf athletes throughout the world. Following the establishment of the CISS, the first World Games for the Deaf (WGD) were held in the summer of 1924 in Paris, France. The first winter WGD were not organized until 1949 in Seefeld, Austria (Stewart, 1990). The United States has participated in these games since 1935 (Gannon, 1981).

The American Athletic Association for the Deaf (AAAD), formed in 1945 by Art Kruger and several other deaf leaders, is the governing body of deaf sport in America today. It works closely with the U.S. Olympic Committee and the CISS to promote various levels of competition (Olympic, international, national, state, provincial, etc.) for deaf athletes in the United States and throughout the world.

These organizations were formed in response to the uniqueness of the deaf athlete. Deaf athletes do not consider themselves disabled, although deafness is a disability. However, deafness is a communication disability, not a physical one. There are organizations such as the Special Olympics and Paralympics that serve athletes with disabilities other than deafness (see, for example, Travis & Sachs in this issue on athletes with mental retardation and Asken on athletes with physical disabilities). Deaf athletes generally communicate in American Sign Language.

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Skills Training in Deaf Athletes • 393

(ASL) and have their own cultural identity that differs from the physically disabled athletic population. Deaf athletes, with their own unique identity, provide special opportunities for exploring the psychological skills of this specific group.

We have a particular interest in this area, with the first author having been a member of three World Games for the Deaf (the "Deaf Olympics") volleyball teams, representing the United States and having won two silver and one gold medal. She is also a member of the volleyball team training for the next World Games in 1993. The second author is hard of hearing and has particular interests in the area of disabilities.

Overview

The literature on sport psychology and deaf athletes is basically nonexistent. Indeed, a review of the literature did not reveal any studies conducted with deaf athletes in regard to psychological skills training. This is clearly an area with much potential for research and practice.

Most of the literature that does exist focuses on social factors influencing deaf athletes' participation in sport (Pinella, 1980; Stewart, 1986) and articles written to educate the general public about deaf sport (Ammons, 1990; Brain, 1990; Minter, 1989). One study conducted by Stewart, McCarthy, and Robinson (1988) showed specific characteristics of deaf sport directors and the socialization process that led to their involvement in deaf sport. The average characteristics of this group were a severe to profound hearing loss, deaf parents, and ASL as their major mode of communication. Socialization factors that influenced participation in deaf sport in this study were related to communication and attendance at a residential school for the deaf.

The literature review also did not reveal any studies on the translation of psychological tests into ASL. Given that deafness is a communication disability, instruments in the language used by persons who are deaf (ASL) would be helpful in both research and practice. Gallaudet University in Washington, DC, notable as the world's only 4-year liberal arts university for the deaf, has, however, recently undertaken the challenge of translating the Minnesota Multiphasic Personality Inventory (MMPI-2) and three other psychological instruments into ASL (Gallaudet University, 1989). Results have not yet been published.

Psychological Skills and Deaf Athletes

Given the lack of work in sport psychology in both research and practice with persons who are deaf, we felt that a first step would be to consider how the psychological skills of deaf athletes could be determined. This would obviously be helpful in providing baseline research (normative) data and information from which educational interventions could be based and potentially initiated. The Psychological Skills Inventory for Sport (PSIS) (Mahoney, 1987) is often used to measure psychological skills of athletes. We decided to see whether this measurement tool would be appropriate for use with deaf athletes. The first step was to translate the PSIS into the cultural language of persons who are deaf: American Sign Language. ASL is the language "most common" (Baker & Cokeley, 1980, p. 54) among persons who are deaf.

It was of utmost importance to provide the PSIS as an option in both English and ASL. This was due to respect and sensitivity of the various educational
and linguistic backgrounds (oral, manual, gestures, etc.) of deaf athletes which have molded their ways of communicating with the world. This issue is one that sport psychologists engaged in research and practice with persons who are deaf will encounter.

Due to the lack of guidelines for translating psychological instruments into ASL, we followed the six steps recommended by Vallerand and Halliwell (1983) for translating psychological tools into a second language. These include translation of the original test into the target language and then translating the translated form back into the original language without using the original instrument. Additionally, the target language instrument is evaluated by experts, pretesting is conducted, cross-cultural evaluation equivalence of the experimental and original test takes place, the construct validity of the translated instrument is determined, and norms are established for the target population.

Methodology

Subjects

The National Deaf Volleyball Tournament, held in July 1990, provided the 26 female participants in this study. A deaf athlete is any athlete with a hearing loss of 55 decibels (db) or more in the better ear. Six women’s and 10 men’s teams were entered in the tournament. These teams included a mix of current deaf Olympians (training for the 1993 Deaf Olympics), developmental players (players chosen to train with the Olympians and who have an opportunity to move up to Olympic team status), recreational athletes (participants in the tournament mainly for fun and social reasons), and former deaf Olympians. As can be seen from the diversity of groups who participated in the tournament, deaf athletes of all athletic abilities participated.

Data Collection

The deaf athletes in this study could take the PSIS in its original English form or in the videotaped ASL version, depending on their preference. Some elements of the process of data collection are instructive for those considering research and practice with athletes who are deaf.

The PSIS–ASL version was given in specific time slots to groups of players to save time and improve the chance of more athletes participating. Due to the differences in test taking length between the PSIS–English (15–20 minutes) and the PSIS–ASL version (45–60 minutes), the athletes were grouped according to their preference of translation. This increased time requirement is an important consideration in working with this population.

Instrument

The Psychological Skills Inventory for Sport (PSIS) was developed by Mahoney (1987) to measure the psychological skills of athletes. It consists of 45 statements that deal with six components of athletic performance and competition: anxiety, concentration, confidence, mental preparation, motivation, and teamwork. There are five possible ratings for each statement, ranging from strongly disagree to strongly agree. The current PSIS is in its fifth revision (PSIS, R-5). It is based on more than 10 years of research with athletes at Olympic, national, and col-
legiate levels. However, the instrument is still undergoing research for further improvement. Questions have been raised about its reliability and validity (Chartrand, Jowdy, & Danish, 1990).

Although the PSIS has been used in studies with elite, pre-elite, and non-elite athletes, few studies have been done with disabled athletes (including deaf athletes). One study is that by White and Croce (1990), who attempted to identify specific psychological skills of world-class Nordic disabled skiers. They found significant anxiety and confidence effects on three levels of an age group MANOVA.

There are many important methodological issues involved in making a videotaped ASL version of a psychological inventory. Several are noted in the next two paragraphs. However, a complete review of these is beyond the scope of this paper but is available from us.

Significant time and financial constraints are often encountered in translating psychological inventories into ASL. Selection of translators and studios is a critical step in the process. For example, it is extremely important that the body, facial, and hand movements be focused on while videotaping. Fluency in ASL and knowledge about deaf culture is necessary for a camera person/editor to do a quality job in videotaping ASL. Appropriate lighting, camera angle, no sound, and special graphics are all special considerations in the translation process.

An additional important consideration is that ASL, like other languages, has regional differences, such as the signs for “loose” and “anxious.” For example, deaf athletes in Texas might sign “anxious” away from the body while deaf athletes from New York might sign it touching the body.

Results

Of the 26 female volleyball players (mean age = 23.2 years), 14 took the ASL version of the PSIS and 12 took the English version. The results are provided in Table 1; none of the differences between the versions were statistically significant.

The 26 players were then divided into four groups. Group 1 featured Olympic players (n = 8), Group 2 developmental team members (n = 7), Group 3 rec-

<table>
<thead>
<tr>
<th>PSIS factor</th>
<th>ASL version</th>
<th>English version</th>
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<tbody>
<tr>
<td>Anxiety</td>
<td>26.7</td>
<td>23.7</td>
</tr>
<tr>
<td>Concentration</td>
<td>17.4</td>
<td>15.7</td>
</tr>
<tr>
<td>Confidence</td>
<td>25.9</td>
<td>22.6</td>
</tr>
<tr>
<td>Mental preparation</td>
<td>11.7</td>
<td>11.8</td>
</tr>
<tr>
<td>Motivation</td>
<td>21.4</td>
<td>20.0</td>
</tr>
<tr>
<td>Team emphasis</td>
<td>22.6</td>
<td>22.2</td>
</tr>
</tbody>
</table>
reational participants \( (n=7) \), and Group 4 former Olympic team members \( (n=4) \). The only significant difference was that Group 4, the former Olympic team members, scored significantly higher on confidence than Group 3, the recreational participants.

The results are not particularly notable, which is important in itself. These volleyball players are athletes and recreational sport participants very much like the millions of other athletes and recreational sport participants who play volleyball competitively and recreationally. The difference of interest here is that the volleyball players in this study had a communication disability. Other groups of players might be different with respect to race, religion, geographical region, experience, or whatever.

There are often many more similarities than differences between groups of players. This is not to minimize the importance of the communication disability of deafness but rather to emphasize that we are referring to persons who happen to be deaf instead of stereotyping individuals as deaf persons. This seemingly minor point is critical, though, in focusing upon the person with a particular characteristic rather than upon the disability.

**Qualitative Feedback From Deaf Athletes**

The overall feedback from the deaf athletes who took the PSIS–ASL videotaped version was positive. Many expressed an interest in learning more about their psychological skills as athletes and requested more information about how to improve these skills. The use of the PSIS–ASL videotape was basically the first exposure many of the deaf athletes had to the field of sport psychology and psychological skills training. This approach appears promising for sport psychologists considering working with athletes who are deaf. Steps are being taken to provide sport psychology services for deaf athletes, with preliminary efforts being undertaken with the World Games for the Deaf Volleyball Team.

**Working With Deaf Athletes**

There are many opportunities for sport psychologists to work with diverse populations. Deaf athletes are one group that would benefit from such training. Many deaf athletes are excellent athletes, and indeed deaf athletes have reached elite levels, winning gold medals in the Olympics, playing professional football in the National Football League, and so on. The following six tips may be useful for the sport psychologist interested in working with deaf athletes:

1. Make sure you have eye contact and attention of the deaf athlete. A wave of the hand, a tap on the shoulder, or some kind of visual or tactile signal will gain this attention.
2. Communication methods vary among deaf athletes. The deaf world is heterogeneous and contains many methods of communication (i.e., ASL, Pigeon Signed English, gestures, lipreading, speech, writing, a combination of methods). Find out how the deaf athlete you will be working with communicates. If you work with a team of deaf athletes, be aware of differences in communication methods.
3. Use facial expressions and body language when talking. If you do not know ASL, you should learn it, especially if you plan on working a great deal with deaf athletes.
4. Pencil and paper tests such as sport psychology inventories are not appropriate for use with deaf athletes whose native language is not English. Videotaped translations in ASL (as discussed above) or use of a certified sign language interpreter can make these inventories valid and accessible to deaf athletes.

5. Speak clearly and slowly but do not exaggerate your lips or overenunciate your words.

6. Use visual means of communication as much as possible, such as a blackboard, overhead projector, hand gestures, sign language, body language, facial expressions, or videotape.

Deaf athletes have many characteristics which are identical to those of hearing athletes. Working with them is not very different from working with other athletes. The only difference may be in communication methods and learning to be visual in your approach rather than the usual auditory manner.

As with hearing athletes, athletes who are deaf are interested in performance enhancement as well as enhancing the quality of the sport experience and the benefits they derive from participation in exercise and sport. While the challenge may seem imposing, there are many opportunities for work in sport psychology with athletes who are deaf. It is hoped that sport psychologists will take advantage of these opportunities in the future.

References


