Pursuing Performance Excellence: Lessons Learned from Olympic Athletes and Coaches

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Abstract

This manuscript reports lessons regarding performance excellence identified by U.S. Olympic athletes and coaches who took part in the 1996 Summer and 1998 Winter Olympic Games. These lessons were derived from in-depth interviews with 8 Atlanta and 7 Nagano athletes and from focus group interviews with 2 to 4 athletes from 8 Atlanta teams and 10 coaches from these teams. Surveys of 296 Atlanta Games athletes (46% of all U.S. competitors), 83 Nagano athletes (46%), 46 Atlanta Games coaches (46%) and 18 Nagano coaches (45%) were also conducted. The open-ended survey responses were combined with themes derived from transcripts of all interviews and content analyzed via a three person consensual validation procedure. Results revealed that 900 Olympic performance-related lessons were reported by Atlanta athletes and 335 lessons by Nagano athletes and were organized into 26 and 24 general categories respectively. Some of the larger categories included: mental preparation/training; achieving optimal physical conditioning while not overtraining; distraction preparation and awareness; plans and adhering to plans; and coaching. Relative to coaching lessons, 285 were identified by Atlanta coaches and 48 by Nagano coaches. Moreover, these individual lesson themes coalesced into 24 and 8 respective more general topical categories such as team cohesion/harmony; family/friend involvement; dealing with the media; and team selection; fun/enjoyment and trials. Results are discussed relative to peak performance research and an example of how to use these lessons in consulting is provided.

Pursuing Performance Excellence: Lessons Learned from Olympic Athletes and Coaches

When most individuals think of the Olympic Games, visions of the memorable performances of great athletes come to mind. In the United States, for example, most Americans remember the unbelievable consistency of speed skater Bonnie Blair, the artistry of diver Greg Luganis, the "miracle on ice" Lake Placid U.S. ice hockey team, or magnificent golden shoed sprinter Michael Johnson. It is ironic, then, that while sport psychology researchers have extensively studied the psychological characteristics of successful athletes (Hardy, Jones, & Gould, 1996; Williams & Krane, 1998 for reviews), only a few efforts (e.g. Orlick & Partington, 1988; Gould, Eklund, and Jackson, 1992a, 1992b) have been made to study Olympic competitors.

Most notable is the work of Orlick and Partington (1988) who examined the mental readiness and skills of 1984 Canadian Olympic athletes. Both interview and survey methods were used in the study. Results revealed that mental readiness was a significant factor influencing final Olympic ranking. Attentional focus and the use of performance imagery were associated with successful performance. Total commitment to the pursuit of excellence, quality training including goal setting, competition simulation and imagery, mental preparation for competition including a detailed competition plan and a plan for dealing with distractions were common factors found with the successful athletes. Those Olympians that did not perform up to their potential reported not being prepared to deal with the distractions that they faced. Factors that interfered with performance included changing things that previously worked, late team selection, and the inability to focus after distractions. It was concluded that the mental aspect of performance is essential for high achievement in important events such as the Olympic Games.

Following up on the Orlick and Partington (1988) study, Gould and colleagues (Gould, Eklund, & Jackson, 1992a; 1992b) conducted a series of studies examining the mental factors and preparation techniques associated with Olympic wrestling excellence. All 20 members of the 1988 U.S. Olympic team were interviewed and

reported that prior to their all-time best performance they experienced positive expectancies, optimal arousal states, and heightened effort and commitment. The use of systematic mental preparation strategies, including preparation routines, tactical strategies focus, and motivational strategies aided in the achievement of those optimal thought and emotional patterns. In contrast, the wrestlers described their all-time worst Olympic performance as having negative feeling states, negative, irrelevant, or irregular patterns of thought, and a nonadherence to preparation routines. These results are consistent with the research of Orlick and Partington (1988) and suggest that mental skills play a crucial role in Olympic athletic performance.

Although examining the psychological skills and characteristics of Olympians is important and has added to the sport psychology knowledge base, there may be utility to looking beyond psychological characteristics and attributes and focusing more broadly on recording the lessons these competitors have learned from their Olympic experience. In essence, debriefing athletes relative to the lessons they learned from their Olympic experience.

Experience is defined by Webster (1989) as "the knowledge or feeling obtained through direct impressions" or "the skill or judgement gained by practice." What knowledge and mental skill lessons are gained from preparing for and competing in the Olympic Games? This is the focus of the present study. Our purpose was to record the lessons learned from Olympic athletes and coaches in their quest for athletic excellence.

Interestingly, the development of a lessons learned system is not without precedent in the United States. The armed forces of the

United States have developed lessons learned systems for its various branches (McCarthy, 1994; Santala, 1994). These systems grew out of concern that U.S. service men and women would repeatedly make the same wartime mistakes. Such mistakes resulted because there was no system in place to record what went right and wrong on the battlefield, organize those lessons, and disseminate them to other service men and women in the same positions. A computer-based communication system was developed where raw observations are collected and integrated into meaningful lessons that are communicated throughout the military system to all those working at the same rank. Hence, the U.S. military has developed a system of organizational memory. Sport psychology specialists may do well to consider such a "lessons learned" approach to record, organize and document mental lessons athletes and coaches learn about achieving performance excellence through their Olympic experiences. Interestingly, such an approach is consistent with one of the major functions of the field outlined by the father of North American sport psychology, Coleman Griffith (1925). Griffith said sport psychologists should study the best athletes and coaches in the field, record the psychological principles they employ, and disseminate those principles to less experienced and less successful athletes and coaches

This article presents lessons learned from U.S. Olympic athletes and coaches. These lessons were assessed in two U.S. Olympic Committee sponsored studies designed to identify and examine factors that positively and/or negatively affected the preparation and performance of U.S. Olympic athletes and coaches prior to and during the 1996 Atlanta Summer and the 1998 Nagano Winter Olympic Games.

Method

Both studies used a two-phase questionnaire and interview data collection procedure and these are summarized below.

Atlanta Study

In the questionnaire phase, surveys were developed and administered to all U.S. athletes (N = 643) and coaches (N = 100) with known addresses who participated at the 1996 Atlanta Olympic Games. The survey items were based on: (1) interviews conducted with nine USOC staff members who had attended numerous previous Games (e.g., sport psychologists, an athletic trainer, games preparation administrators, etc.), (2) National Sport Governing Body high performance plan evaluations, and (3) USOC Atlanta Games coaches summit debriefing notes. Topical areas included in the survey were: participant background; Olympic expectations and readiness; the importance of mental skills in Olympic performance; factors influencing performance in the year leading up to the Games and at the Games (e.g., athlete preparation, media, team influences, coaching, family, sponsors, staffing, and environmental). Two hundred ninety-six athletes (46%) and 46 coach (46%) surveys were completed and returned.

In addition to the surveys, the interview phase of the project involved interviews with individual athletes, coaches, and teams. Specifically, in-person focus group interviews (involving 2 to 4 athletes) were conducted with 4 highly successful teams that equaled or exceeded NGB performance expectations at the Games and 4 teams that performed below NGB expectations. The 10 coaches of these teams were also interviewed individually. Phone interviews with 8 athletes (4 that met or exceeded expectations and 4 that did not meet expectations) were also conducted. Participants for all interviews, whether teams or individual athletes were selected based on two criteria. First, based on previous performances at World championships they were projected to be potential medal contenders at the Games. Second, USOC staff felt these individuals would be good sources of information for the study. The interviews lasted between 30 and 90 minutes and focused on the same types of questions asked in the surveys. The goal of the interviews, however, was to try to obtain a feel for each team or athlete's individual Olympic experience and detailed explanations of the factors that affected performance.

Nagano Study

The Nagano study was a follow-up to the Atlanta investigation and with a few minor exceptions (e.g., examined factors such as jet lag, snow/ice conditions not applicable to the summer Games) used identical measures and procedures. Specifically, all 1998 U.S. Nagano Olympians (N = 180) and coaches (N = 42) with known addresses were mailed surveys in the year after the Nagano Games. Eighty-three athletes (46%) and 19 coaches (45%) returned completed questionnaires. Individual phone interviews were also conducted with 7 athletes (4 that met or exceeded expectations and 3 that did not meet expectations), and focused on the same types of questions asked in the surveys. Unlike the Atlanta study, no team focus-group interviews were conducted.

Data Analysis

In both the survey and interview portions of the studies the athletes and coaches were asked what advice they would give to future Olympic coaches and athletes to enhance their chances of peak performance during Olympic competition. Within each area (advice for athletes and advice

for coaches), written open-ended responses from the surveys and themes identified from the transcripts of all interviews were combined and content analyzed. Procedures recommended by Miles and Huberman (1994), and used in previous qualitative studies (e.g., Gould, Eklund, and Jackson, 1993) were followed for the data analysis. Specifically, each of three investigators studied written transcripts and organized "like" responses into more general categories. The three investigators then met as a group and consensus was reached on each category and a summary label for the category was determined. The responses regarding lessons learned are the focus of this manuscript.

Results

Lessons learned reported by the Atlanta and Nagano participants focused on suggestions for future Olympians and suggestions for future Olympic coaches. First, lessons suggested by Olympic athletes are presented. Second, lessons learned from Olympic coaches are forwarded.

Athlete Lessons

Based on the athlete surveys, focus group team interviews, and individual athlete interviews, Atlanta participants reported 900 Olympic performance-related lessons and Nagano participants reported 335 lessons. The content analysis of these 900 individual lessons from Atlanta participants resulted in 26 more general categories. The content analysis of responses from Nagano participants resulted in 22 categories of lessons. Both Atlanta and Nagano participants reported many of the same categories of lessons learned (see Table 1). While space limitations prevent a detailed description of all categories, some of the more frequently reported and psychologically significant lessons will be discussed in more detail below.

Most Frequently Reported Lessons

Mental preparation and training. One of the categories of advice most frequently cited by both Atlanta and Nagano participants was "mental preparation/training." Atlanta participants provided 173 specific lessons (19.2% of total lessons) and Nagano participants provided 73 specific lessons (21.8% of total lessons) related to mental preparation and training. Specific lessons contained in this category ranged from numerous suggestions to work with sport psychology consultants to the importance of engaging in long-term psychological preparation to the need to be mentally ready, confident, and focused. In addition, other more specific suggestions were offered. These included such things as balancing the need to focus on one's performance with enjoying the Olympic experience (suggesting that focusing only on performance or being so caught up in the Olympic excitement that one's focus waned was destructive); talking to others and learning what to expect at the Games; concentrating on oneself and finding time to focus; staying confident and positive; having and implementing mental plans; using stress management strategies; relaxing; and not putting extra pressure on oneself. Several quotes from the athletes reflect the importance of these lessons. For example, one Atlanta athlete said, "just as physical training is a process, so is mental training, and you can't expect to have an expert come in and do a quick fix." Another athlete suggested, "work on mental and psychological skills so that they don't get caught up in the hype."

Optimal physical training while avoiding overtraining. The second most frequently cited category of lessons learned across both Atlanta and Nagano participants was "optimal physical training while avoiding overtraining." Atlanta par-

ticipants reported 165 individual lessons (18.3% of total) and Nagano participants reported 37 specific suggestions (11.0% of total). In essence, this category reflected the need to train hard and be very well prepared for the Olympics while not overtraining. As one participant indicated: "Sometimes you go a little overboard on [training]...I think the last weeks that we did. What I needed was a mental break." Furthermore, another athlete advised: "Be careful in trying to 'get the edge' that you don't overdo it and 'lose the edge'." Thus, such specific advice as training smart, taking breaks, resting as the competition approaches, individualizing training and recognizing overtraining signs were often mentioned.

The story of one unsuccessful team reflects this category of lessons well. Favored for a medal going into the Games (as a result of their World champion status), the team focused so much on training hard and gaining an edge over their opponents, that they physically overtrained. This also resulted from the inability of the athletes and coaches to recognize signs of overtraining, and their failure to communicate. The result was a mediocre Olympic campaign and the failure to earn any medal.

Coaching. As one might expect, an important category of lessons focused on "coaching" issues. Atlanta participants cited 84 specific lessons (9.3% of total) and Nagano participants cited 37 specific lessons (11.0% of total) related to coaching issues. A variety of specific issues fell within this category, including such things as coaching credibility and trust, suggestions for athletes to deal with their coach (e.g., don't be pressured), and the importance of achieving good communication by avoiding sarcasm, emphasizing honesty

and being very clear in one's remarks to athletes. Especially salient lessons focused on the need to incorporate personal coaches by getting them access to venues and coordinating their presence and interactions with official team coaches. Lastly, it was also suggested that coaches not become distracted by the hoopla of the Games.

Distraction preparation and awareness. "Distraction preparation and awareness" was an important category of lessons reported by the Atlanta participants (44 lessons, 4.9% of total) and Nagano participants (20 lessons, 6.0% of total). As one athlete indicated: "So I think all of us didn't really realize the extent of those outside distractions and the pressure that continued to mount." This category of lessons included such specific advice as being ready to deal with all the distractions and hoopla that come from the Olympics, an event the athletes repeatedly reported as very different from other major competitions. It was also emphasized that athletes need to minimize nonessential meetings and simplify their lives, learn to say no and be selfish, not focus on small nonessential things, focus on what they can personally control, and be ready to balance the Olympic "hoopla" with one's performance mission and focus.

Several interesting ways athletes and teams dealt with distractions were given as examples of implementing this category of advice. One gold medal winning team, for instance, reported having a psychological "in" and "out" box in the month leading up to their performance. The entire team agreed that issues that directly effected performance went into the "in" box and were immediately addressed, while nonperformance issues (e.g., shoe contracts) went into the out box, and were not addressed until after the Games. In contrast, a team with high performance expectations going into Atlanta reported that they did not meet their expectations because many of their athletes and coaches got so caught up in the Olympic village atmosphere that they failed to achieve the focus needed for optimal performance. For example, one athlete from a less successful team said, "they're (other athletes) playing laser tag two hours before the game, they have no clue who we'll play, what the line-up is or what's going on."

Other Lessons of Interest

Olympic village. A number of lessons were identified relative to the "Olympic village" and related matters. Atlanta participants reported 43 specific lessons (4.8% of total) related to the Olympic village. For example, athletes and coaches both made comments related to the decision to stay in or out of the village and the advantages of each approach (i.e., draw energy from the village excitement versus losing focus due to all the Village distractions). One athlete expressed that she wished she had stayed outside of the village, "You do all these things that you work so hard at and then you get into a situation where there's just too many people around all the time." Spending too much time in the village, taking advantage of the many village amenities and difficulty finding privacy were also discussed in numerous comments

Team cohesion and harmony. "Team cohesion and harmony" was an important category of responses compiled from athletes and coaches comments espousing the need of team support, unity, and bonding. Atlanta participants reported 33 specific lessons (3.7% of total). As one athlete said, "We had respect for one another and we made each other live up to a higher standard." Similarly one

individual sport athlete indicated that: "It was a team that came together like I've never seen before and we just all bonded and it didn't seem like anyone had...but this team did it and I mean the best feeling that I had was when I was up on the blocks or I was on the award podium and I saw my teammates there that are just going crazy. I mean that was definitely, that definitely helped... just to know that I wasn't out there by myself. I had them and thev were there with me too." Interestingly, a number of participants also suggested that teams engage in numerous team building exercises. Finally, increased team cohesion and harmony advice was gleaned from both coaches and athletes of team, as well as individual sports.

International competition. Atlanta participants cited 32 specific lessons (3.6% of total) related to international competition. Specific lessons ranged from numerous suggestions to gain as much international experience as possible prior to the Games to suggestions to limit international competition the year prior to the Olympics. One athlete summed up the advice, saying *"international tournaments are great and it's great practice, but don't overdo it."*

Family and friend involvement. Atlanta participants cited 31 lessons (3.4% of total) and Nagano participants reported 9 lessons (2.7% of total) related to family and friend involvement. Lessons in the 'family and friend' category varied and included suggests such as setting up a system for getting family and friends tickets, having a plan to deal with family and friend communication during the Games, and educating family and friends about the demands on athletes in preparation for and during the Olympics. Other advice included not having family or friends at the Games and limiting contact with them during the Games.

Plans and adhering to plans. Related to the category of distraction preparation and awareness was "plans and adhering to plans." Atlanta participants reported 29 specific lessons (3.0% of total) and Nagano participants reported 9 lessons (2.7% of total) related to plans and adhering to plans. Interviews emphasized that athletes and coaches should have psychological and physical preparation and competition routines developed (based on past successful performances). In addition, participants noted that coaches and athletes must adhere to those routines and avoid making last minute changes-no easy task in the unique Olympic environment that offers a host of distractions and changes from one's normal practice and competitive Illustrating this point, one schedules. athlete said, "more than anything athletes need to have already a routine established and they need to stick with that routine and take refuge in that routine because at the Games, everything changes."

Support personnel. Relative to "support personnel" (24 lessons, 2.7%; 16 lessons, 4.8%), it was recommended that athletes get support personnel (e.g., hairstylist for skaters, cook if living out of the village, sport psychology consultant) organized for the Games. It was also emphasized that athletes surround themselves with support people they know and trust. One gold medallist said "you need to make sure you surround yourself with people you trust, people that are really good at what they do and what you need them to do ...so on your end you can be kind of carefree and relax."

Team selection and trials. The "team selection and trials" category focused on the

timing of the trials with most respondents recommending that they be held earlier. Atlanta participants cited 18 specific lessons (2.0% of total) and Nagano participants reported 11 lessons (3.3% of total) related to team selection and trials. One athlete from a less successful team expressed that her team's trials were too close to the Olympics and said, "we never had a chance to celebrate...we had one night...and then it was back to Atlanta and we were in the grind." Other recommendations focused on how teams were selected and included such suggestions as utilizing more athlete input and not basing selections on one single performance.

Dealing with media. Nagano participants recommended 14 specific lessons (4.2% of total) related to media. Specifically, teams and athletes should have a media plan in place prior to the Games and a competent media liaison in place. It was also emphasized that to ensure good performance athletes must not schedule too many media obligations, as one athlete said, "you know sometimes you need to be selfish and say I can't do something because it's not gonna be the best preparation for me."

Travel. One condition that differed between the Atlanta and Nagano participants was travel. Nagano participants reported 10 specific lessons (3.0% of total) related to travel. Advice relating to traveling to Japan included such issues as making sure transportation issues were addressed before practice and competition begins. A number of lessons also focused on the optimal arrival time and the importance of not arriving too early or too late at the Olympic venue and host country.

Opening ceremonies. A less frequently cited category of advice was related to Opening Ceremonies. Atlanta participants

reported 11 suggestions (1.2% of total) and Nagano participants reported 3 suggestions (0.9% of total) related to this category. Advice in this category was varied. On one hand, it was recommended that athletes and coaches attend Opening Ceremonies because of the personal satisfaction evoked, the feelings of U.S. team unity (beyond one's sport) derived, and their emotional/uplifting nature. In contrast, other recommendations focused on the physically and psychologically draining nature of the experience (e.g., being on one's feet for so long, lack of sleep from late completion - 3:00 am return to housing at Atlanta Games). These varied responses might best be explained by a lesson conveyed by the following coach. "It was wonderfully exhilarating for the athletes, and I think it really brought home the Olympic experience and kind of launched them a But, when we went to our third hit. game...and had to travel again, then I saw some of the fatigue from that travel from the Opening Ceremonies kind of set in." Another coach had verv specific recommendations for future coaches: (a) do not go if Opening Ceremonies are one day away from your performance; (b) go Opening Ceremonies if vour to competition is three days away; and (c) if your competition is two days away from Opening Ceremonies – you have a tough decision and will need to gain as much information as possible about the pros and cons of attending and make a decision early.

Coaching Lessons

Based on the findings of the individual coach surveys and the coach interviews associated with the focus groups, Atlanta participants cited 285 specific coaching lessons and Nagano participants cited 48 lessons. The coaching lessons from the Atlanta participants coalesced into 24 more general categories and the Nagano coaching lessons grouped into 8 general categories. Table 2 contains the frequencies and percentages of lesson categories for both Atlanta and Nagano participants.

Most Frequently Reported Lessons

Coaching. The "coaching" category consisted of 41 specific lessons (14.4% of total) from Atlanta participants and one lesson (2.1% of total) from a Nagano participant. This category focused on such recommendations as the importance of clarifying one's coaching role with the National Sport Governing Body (NGB) and being as committed as one's athletes, being sure to make fair coaching decisions, not over-coaching, and being aware that like their athletes, coaches are susceptible to fatigue. Reflecting the importance of commitment, one coach said, "believe in what you are doing, you have to spend the hours training, studying, and competing – know you can and believe in yourself, team, and staff."

General preparation. The "general preparation" category consisted of 33 specific suggestions (11.6% of total) from Atlanta participants and 6 lessons (12.5%) from Nagano participants. Lessons in this category emphasized the importance of long-term planning, having a clear vision for one's athletes, and being realistic in one's plans. Relative to the need for, and difficulty of, planning, one coach said "To organize this amount of effort in one year, taking into consideration the availability of the athletes of their time in the context of their social integration, school, job, family, etc., it's a challenge." The importance of anticipating potential distractions, and taking them into consideration when forming a plan was also recommended. Lastly, respondents repeatedly emphasized

the importance of "detailed" planning as reflected in the following coach comment. "Planning is vital! You must plan the entire approach. Consider: athlete selection, a long-term performance prognosis, program objectives, a systematic, controlled training environment, anticipate changes in food, housing, social factors, know competition, travel/jet lag, daily plans (especially recovery), at-games factors (climate, weather, transportation, media, pressure), number of competitions, and how you will filter communication from home via team leader."

Optimal physical training and avoiding over training. Relative to the "optimal physical preparation/avoid over training" lessons category, Atlanta participants reported 31 lessons (10.9% of total) and Nagano participants cited 3 lessons (6.3% of total). The importance of coaches having athletes and teams well prepared, both physically and psychologically, was emphasized. It was further recommended that while coaches must help teams to be in top physical condition it is vital that they prevent over training by using appropriate tapering strategies and taking breaks. An especially interesting lesson featured with the "fragility" of athletes when they were in top physical condition and the importance of coaches being alter to signs of this to prevent over training and illness.

Mental preparation. Atlanta participants cited 28 specific lessons (9.8% of total) and Nagano participants reported 7 lessons (14.6% of total) related to "mental preparation/training." This category included suggestions to prepare athletes and teams for the physical and psychological stress encountered at an Olympic Games, and implementation of a mental training program. Numerous recommendations urged the utilization of sport psychology/mental training consultants. As one coach of a team that under-performed said, "we need a strong base of sport psychology for our elite athletes, to help them perform and deal with coping issues."

Other Lessons of Interest

Support personnel. Atlanta participants reported 12 lessons (4.2% of total) and Nagano participants reported 2 lessons (4.2% of total) that were related to support personnel. The "support personnel" category emphasized the need to create a support staff and include various specialists (e.g., sport psychology specialist, skilled team manager). One coach aptly reflected this need when he said: "Preparing for the Olympics is not just a responsibility of the athlete and his coach. I believe we need to enrich this with a team of specialists who are preparing our athletes for the Olympics. ... We need a team. And that team is extending more and more from the coaching, medical persons, scientists, athletes, family, community support, sponsors, NGB membership. They all have a contribution in that athlete's preparation." Securing highly qualified support staff was recommended, as well as holding them accountable by releasing them when they do not perform.

Dealing with media. Atlanta participants reported 10 specific lessons (3.5% of total) related to dealing with the media. In terms of the "dealing with the media" category it was suggested that coaches set specific rules related to working with the media, to be ready to respond to both positive and negative events that could occur, and realize that television (up close and personal type human interest type coverage) often takes longer than usually planned for. Relative to the lesson pertaining to being ready to respond to both positive and negative events one coach said: "*It* was negative and we could never get out of that negative spin with the media, so consequently it was just always going downhill... most of what I was reading in the media was very negative ... that could have all been avoided or at least a good portion of it, or diffused. And the fact that it wasn't diffused, it affected our performance... you've got to be prepared for the media and not just, for the media to be good. You've got to be prepared for when it's <u>not</u> good." Participants also emphasized the importance of having a media or sports information person to act as a buffer between the coach/team and media.

International competitions. Concerning "international competitions," Atlanta participants provided 9 specific lessons (3.2% of total) that fit into two dominant themes. First, it was suggested that coaches should schedule high levels of international competition the year before the Games. Second, it was recommended that these competitions occur frequently. One coach said, "*it is very important for the coach and the athlete to experience high level (international) competition before the Games – the level of expectation will be more realistic.*"

Team cohesion and harmony. Atlanta participants cited 9 specific lessons (3.2% of total) and Nagano participants reported 1 lesson (2.1% of total) related to team cohesion and harmony. The "team harmony/cohesion" category emphasized the importance of coaches recognizing the importance of team dynamics. Establishing trust between staff and players was seen as essential in this regard, as was the utilization of team building exercises. As one coach said, "develop a high level of trust and respect with your athletes. This should go both ways. Team is inclusive of all staff and athletes. Team unity is number one."

Family and friend involvement. Eight specific lessons (2.8% of total) related to family and friend involvement were reported by Atlanta participants. The "family/friend involvement" category emphasized the importance of having a plan for interacting with athlete and staff families and friends at the Games. Critical to this objective was the need to educate family and friends regarding the demands of an Olympic Games environment. As one coach indicated: "... Family and friends need to be very well educated because we had a couple of instances where families wanted, obviously wanted to be with their athletes and we would have a schedule change and things that we had no control over ...disappointments on the part of the athletes, disappointments on the part of the families, and I think we need to do a real good job of educating the families about just why the athletes are there and how they as families can give support." Additionally, assigning someone on the staff to serve as a staff liaison for family/friend interactions was suggested several times

An excellent example of an effective family and friend education program was the one implemented by a gold medal winning team. Specifically, the coach met with the families and explained how they could be great resources for the athletes. For example, the coaches explained that there would be times at the Games when their athlete will need "space" and will not be able to be with loved ones, and that negative comments from significant others can influence player confidence. A system was also initiated in an effort to keep families informed at the Games, and to address any concerns they may have.

Specifically, the first layer of the system involved the selection of two mothers that acted as communication liaisons in case of problems or questions. That is, only these mothers would bring concerns to the coaching staff. The second layer involved two NGB administrators who knew the families and would answer their questions without involving the coaches or would pass important issues on to the coaches themselves. This system helped athletes enjoy being with their families without having to worry about meeting their needs (i.e., getting them tickets, answering questions). It also allowed the families to provide optimal support to their athletes.

Distraction preparation. Atlanta participants provided 8 lessons (2.8% of total) and Nagano participants reported 3 lessons (6.3% of total) related to distraction preparation. Specific lessons included not allowing athletes to have beepers, being prepared for the enormous amount of paper work required of coaches, and being ready to deal with unexpected events.

Plans and adherence to plans. Nagano participants reported 8 specific lessons (16.7% of total) related to plans and adherence to plans. Lessons in this category focused on developing a coaching plan for achieving success and then sticking with the plan. One coach said "*make a plan and follow it*."

Closure. Although not frequently reported (2 lessons from Atlanta participants, 0.7% of total), the importance of closure was suggested by several coaches. As one coach indicated "*I think one of the problems at the end is for individuals and teams who succeed or exceed the elation, it must be unbelievable. And they just want to go let it all out. Where the teams that may not achieve, the disappointment*

is so huge because everyone sees you, that I'm not sure athletes or coaches are really prepared to close the situation in an appropriate fashion so that you can always deal with the disappointment of defeat. But the disappointment of defeat at the Olympics I think is such a different animal. And how do you deal with it? I mean I'm not prepared." Hence, providing support for coaches and athletes after the Olympics, conducting debriefing sessions, and having some form of closure experience were recommended.

Coach mental preparation. A much less frequently cited category (6 lessons from Atlanta participants, 2.1% of total) was "coach mental preparation' which emphasized the importance of, for example, the coach staying relaxed while coaching at the Games. Keeping the Olympic experience in perspective and believing in oneself as a coach were also urged. As one athlete said, "the coaches could do with psychological counseling some as *well...the coaches need to take advantage* of the sport psychologist and the resources that we have available themselves to deal with the stress, because there's a lot of stress placed on them...their jobs are on the line...the coaches need to learn to deal with those added pressures of the Games and they need to keep things in perspective as well."

Discussion and Conclusions

The large number of diverse categories of Olympic lessons identified in this article reflects the complexity of preparation and performance considerations. Similar factors were found to be important in the larger studies from which the results were taken (See Gould, Guinan, Greenleaf, Medbery, Strickland, Lauer, Chung, & Peterson, K., 1998; Gould, Greenleaf,

Dieffenbach, Chung, & Peterson, 1999). That is, based on the multiple sources of information collected, it is evident that successful Olympic performances in Atlanta and Nagano were complex, multifaceted, delicate, and long-term processes that required extensive planning and painstaking implementation of plans. Success seldom happened by chance and was easily disrupted by numerous distractions. While close attention to details and plans is critical, flexibility to adjust to the many unexpected events is also important. Hence, the specific lessons identified in this manuscript, while important, only form part of a complex matrix of factors that influence peak performance. The whole, then, may be more than the sum of its parts and simple solutions for achieving peak performance were not derived.

The lessons identified are also consistent with much of the sport psychology literature. For example, numerous lessons were identified about the importance of mental training, achieving optimal physical conditioning while not overtraining, enhancing team cohesion, and adhering to performance plans and routines. Sport psychologists have also advocated importance of these topics: mental training (Orlick & Partington, 1988); prevention of overtraining (Murphy, Fleck, Dudley & Claister, 1990); team cohesion (Carron, Spink, & Prapavessis, 1997); and performance routines (Boutcher, 1990; Gould, Eklund and Jackson, 1992a; Orlick & Partington, 1988).

Although not designed to test it, the findings also lend support to Orlick's (1992) wheel model of human excellence. In particular, based on his extensive research and consulting experience, Orlick has found that performance excellence results from seven basic elements. These elements include commitment, belief, full focus, positive images, mental readiness, distraction control, and constructive evaluation. Lessons in this investigation addressed these critical elements.

Lastly, the lessons reflect several performance considerations that have not received much attention in the sport psychology literature (e.g., elite athlete family support versus distractions, support personnel integration into a high performance team). Greater efforts ought to be made to understand these issues.

The ultimate value in the lessons gleamed here from previous Olympians and Olympic coaches is to disseminate the information to future Olympic athletes and coaches. An illustration of how this may be achieved was a presentation by Gould (1998) who summarized many of the lessons and presented them to U.S. freestyle mogul skiing hopefuls 160 days prior to the Nagano Games. Selected lessons were presented to the skiers in a presentation and accompanying handout. In a 90 minute session the lessons were overviewed and the athletes and coaches discussed their relevance (a discussion which was enhanced by having two previous Olympic medallists present and a two time Olympic coach). In addition, to gain a better appreciation of the demands of the Olympic Games, individual athletes then considered those lessons most appropriate to their personal situation and developed strategies accordingly. For instance, one high profile team member developed a plan for effectively dealing with family and friend expectations in the Olympic season, while another religiously practiced thought stopping/restructuring to maintain focus in the face of potential Olympic distractions. By being aware of the lessons of previous Olympians these Olympians were better prepared in their own pursuit of Olympic excellence.

Recognizing the value of disseminating lessons learned from previous Olympians to future Olympic athletes and coaches, the USOC has produced a videotape titled "Achieving the dream: Performing your best at the Olympic Games." This 35 minute video is hosted by legendary Olympic medal winning speed skater Bonnie Blair and swimmer Jon Naber. In it, Olympic athletes discuss the results of this investigation with special emphasis placed on conveying the lessons learned. The videotape is also supplemented by an Olympic performance preparation checklist that can be completed by athletes and coaches. Lastly, an administrators checklist for planning Olympic success, a family and friend support brochure (that identifies ways family and friends can support but not distract athletes), and a brochure that explains how volunteers can assist but not interfere with athletes have been published.

In conclusion, it is important to recognize that, as someone once said, "Great corporations don't do one thing right, they do 1000 little things right every day." This quote reflects what was learned from the athletes and coaches in this study. Successful Olympic performance does not require that an athlete, coach or team do a single thing right. The key is to do many things right, on a consistent basis, and in an integrated fashion. Hence, a central recommendation based on these results is to develop a plan that integrates and incorporates these lessons into an effective program, that when implemented does not necessarily guarantee Olympic success, but provides the greatest probability of Olympic success.

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Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
Mental preparation/training*	 Be mentally prepared and confidence Have a sole performance focus Start mental preparation early 	173 (19.2%)	73 (21.8%)
Optimal physical training/avoid overtraining*	 Don't overtrain Train smart Work on technical skills 	165 (18.3%)	37 (11.0%)
Coaching*	 Be honest and straightforward with coach Have contact with your personal coach during Games Develop coach-athlete communication 	84 (9.3%)	37 (11.0%)
Distraction/Preparation awareness*	 Try to block out meaningless distractions Don't stress if things are not perfect Focus on what you can control 	44 (4.9%)	20 (6.0%)
Olympic village*	 Stay outside the village Move out of village a few days before competition Don't try to do/see everything in village 	43 (4.8%)	5 (1.5%)
Team cohesion/harmony*	 Work on maintaining team cohesiveness Do team building exercises Deal with team issues before Games start 	33 (3.7%)	4 (1.2%)

Table 1 Olympic Lessons: Categories of Advice from Olympic Athletes

Table 1 cont.

Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
International competition*	 International tournaments are great and it's great practice, but don't over do it Get as much international experience as possible Do more international competitions in the two years prior to the Games 	32 (3.6%)	6 (1.8%)
Family/friend involvement*	 Hold an athlete-family meeting prior to Games Have family plans taken care of ahead of time Take time for family 	31 (3.4%)	9 (2.7%)
Plans/adherence to plans*	 Have a plan and stick to it Stick with what has worked in the past Insist on staying with the normal pre-tournament routine 	29 (3.0%)	9 (2.7%)
Support personnel*	 Explain support staff roles to team Support staff needs to be familiar with athletes Assemble your own personal 'support crew' 	24 (2.7%)	16 (4.8%)
Team selection and trials*	 Have trials earlier Use Olympic trials as setting stone to real thing Have a less stressful trials and have sufficient time off before Olympics 	8 (2.0%)	11 (3.3%)

Table 1 cont.

Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
Dealing with media*	 Hold media training earlier Block out the media Have someone take care of media responsibilities for you 	14 (1.6%)	14 (4.2%)
Travel*	 Have better transportation to and from venues Have personal transportation Don't travel too much prior to Games 	13 (1.4%)	10 (3.0%)
Opening Ceremonies	 Expect chaos Go to Opening Ceremonies Don't go to Opening Ceremonies 	11 (1.2%)	3 (0.9%)
General Preparation	 Do your homework Attention to preparation is critical Be prepared and ready 	27 (3.0%)	20 (6.0%)
USOC/NGB Relations	 Don't blindly let NGB take control NGB needs to take care of details so athletes can focus Have a level playing field – enforce drug testing 	23 (2.6%)	7 (2.1%)
Funding/sponsorship	 Try to get more funding so that you can train more Don't worry too much about work and paying bills Don't rely on USOC or NGB for financial support 	18 (2.0%)	3 (0.9%)

Table 1 cont.

Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
Fun/Enjoyment	 Enjoy the experience Relax, enjoy the people and the events Set some time aside for fun 	17 (1.9%)	5 (1.5%)
Food/nutrition	 Eat more healthy food Properly time your pre-competition meal Take control over food intake 	16 (1.8%)	6 (1.5%)
Equipment	 Make a commitment to equipment early and don't change Wear the shoes you want to, not what your NGB wants Have ski and wax testing at site prior to competition 	6 (0.7%)	9 (2.7%)
Simulation	 Practice performing under pressure Practice in Olympic uniform 	5 (0.6%)	
Visit/practice at Olympic venue	Practice at venue ahead of timeVisit venue prior to Olympics	5 (0.6%)	
Leadership	 Take on leadership Have a positive team leader Strong team leadership is important 	4 (0.4%)	2 (0.6%)
Closure	Have team closureDebrief athletes and coaches	4 (0.4%)	
Team training/Residency programs	• Live together as a team the last few months before competition	2 (0.2%)	
Miscellaneous		59 (6.5%)	29 (8.6%)
Total		900	335

* Discussed in text. 1

Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
Coaching*	 Don't over coach, keep it simple Take advantage of all the high performance summits and opportunities to meet and talk with other coaches 	41 (14.4%)	1 (2.1%)
General preparation*	 Don't dream – prepare Preparation is truly the best way to be successful 	33 (11.6%)	6 (12.5%)
Optimal physical training/avoid overtraining*	 Give athletes more time off closer to Games Athletes are fragile when in top shape 	31 (10.9%)	3 (6.3%)
Mental preparation/training*	 Mental training needs to be consistent It is important to have a sport psychology consultant 	28 (9.8%)	7 (14.6%)
Support Personnel*	Get rid of unproductive staffNeed a team of sport scientists	12 (4.2%)	2 (4.2%)
Dealing with the media*	 Need a good media person Set rules about media interviews and coordinate through one person 	10 (3.5%)	
International competition*	 Important for coach and athlete to experience high level international competition before the Games Put athletes in 'pressure' international settings 	9 (3.2%)	

Table 2 Olympic Lessons: Categories of Advice from Olympic Coaches

Table 2 cont.

Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
Team cohesion/harmony*	Get team on the same pageTeam building is important	9 (3.2%)	1 (2.1%)
Family/friend involvement*	 Assign someone to deal with family and friend ticket issues Educate family and friends 	8 (2.8%)	
Distraction preparation*	 Develop a plan of action to deal with spouses and personal coaches who get on an ego trip Be prepared for the long paper trail and the media circus 	8 (2.8%)	3 (6.3%)
Plans and adherence to plans*	Stick with what has worked for youStick with the plan	3 (1.0%)	8 (16.7%)
Coach mental preparation*	 Stay relaxed, don't stress (at least not in front of your athletes) Believe in what you are doing 	6 (2.1%)	
Closure*	 Provide closure Athletes close to retirement may need help 	2 (0.7%)	
USOC/NGB relations	 Education NGB on athlete and coach needs Take advantage of high performance facilities 	13 (4.6%)	

Table 2 cont.

Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
Funding/sponsors	 Increase athlete support Don't discuss money with athletes 	10 (3.5%)	
Team selection and trials	 Make final cuts early Have a system where best athletes can still make team even if they falter during trials 	9 (3.2%)	
Olympic village	 Get away from village to focus Stay out of village night before competition 	6 (2.1%)	
Simulation	 Hold mock trials Use simulation trips to actual venue, housing, etc. 	4 (1.4%)	
Leadership	 Develop a team leader Make sure you choose a strong team leader 	4 (1.4%)	
Team training / Residency Programs	 Go into residency program 4 to 5 months in advance Schedule to get together at least 2 years prior to Games 	4 (1.4%)	
Fun/enjoyment	 Have fun – enjoy the Olympics as a coach Enjoy the total Olympic experience as long as it doesn't interfere with your team's preparation 	4 (1.4%)	3 (6.3%)

Table 2 cont.

Category	Example Lessons	Atlanta frequency (%)	Nagano frequency (%)
Communication	 Be honest and open with athletes Develop a good communication system 	3 (1.0%)	1 (2.1%)
Opening ceremonies	 Be prepared for Opening ceremonies to be a zoo Opening ceremonies worth it if competed more than 2 days later 	3 (1.0%)	
Visit / Practice at venue	 Practice at venue Scout competition site before Games	3 (1.0%)	
Rules / Decisions	Make rules very specificConfront issues directly	2 (0.7%)	
Miscellaneous	Make rules very specificMake rules very specific	20 (7.0%)	13 (20.1%)
Total		285	48

* Discussed in text.