

## Coping Strategies Used by National Champion Figure Skaters

Daniel Gould, Laura M. Finch, and Susan A. Jackson

*This investigation had two purposes: (a) to identify and describe the coping strategies used by national champion figure skaters and (b) to examine the relationship between coping strategies and particular stress sources. Participants were 17 of 20 (85%) Senior U.S. National Champion figure skaters who won titles between 1985 and 1990. All skaters were interviewed, and the interview transcripts were content analyzed. General coping dimensions reported by at least 40% of the skaters included (a) rational thinking and self-talk, (b) positive focus and orientation, (c) social support (e.g., receiving support from coach, talking with friends and family), (d) time management and prioritization, (e) precompetitive mental preparation and anxiety management (e.g., relaxation, visualization), (f) training hard and smart, (g) isolation and deflection (e.g., not letting things get to me, avoiding/screening media), and (h) ignoring the stressor(s). It was also found that the skaters implemented different coping strategies depending on the specific stressors encountered.*

*Key words:* elite athletes, stress management, sport psychology, figure skating

Competing in elite-level sport is often assumed to be extremely taxing for participants. However, little if any attention has been given to examining stress, stress sources, and coping strategies in champion athletes.

Seventeen Senior U.S. National Champion figure skaters participated in this study. We conducted in-depth interviews in an effort to examine the positive and negative elements of the skaters' championship experience, the levels of stress experienced prior to and after their attaining national champion stature, and the stress-coping strategies they employed. Space limitations and the extensiveness of the project made it necessary to publish the results of the research in a series of articles. Previous articles have examined the general experience of being a national champion, the positive and negative elements of that experience, and difficulties encountered in defending a championship title (Gould, Jackson, & Finch, 1993a). Gould, Jackson, and Finch (1993b) have also examined levels and sources of stress experienced by these athletes. This article presents the stress-coping strategies used by

these elite athletes and examines whether these strategies were related to previously identified sources of stress.

Interestingly, 71% of the national champion figure skaters interviewed for this study reported that they experienced more stress after winning their national titles than before doing so (Gould et al., 1993b). Understanding the levels and causes of stress experienced by elite athletes is extremely important, and sport psychologists face the additional task of helping athletes cope with the stress. Hence, we sought to identify coping strategies used by national champion figure skaters to deal with the stress they experienced as national title holders, and, in an effort to extend previous research, we began to identify the coping strategies that may be used to deal with particular stressors and link them to specific stress sources.

Coping refers to an individual's constantly changing cognitive and behavioral efforts to manage external and internal demands or conflicts (Lazarus & Folkman, 1984). These demands are appraised as taxing or exceeding the individual's resources. Recent conceptualizations of coping have focused on coping as a process rather than as simply a reaction to a stressor (Lazarus & Folkman, 1984). That is, coping encompasses the range of purposeful responses to a stressor, from appraisal of the situation (e.g., assessing the situation relative to degrees of threat) to stress management via effortful response (e.g., relaxation strategies, social support). Moreover, coping includes all attempts to manage stress (both cognitive and behavioral efforts), regardless of the effectiveness of the attempt (Compas, 1987).

Considerable research on the coping process and coping strategies has been reported in the general psy-

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chology literature (e.g., Carver, Scheier, & Weintraub, 1989; Compas, 1987; Folkman & Lazarus, 1985; Lazarus & Folkman, 1984), but little research examines coping with stress in sport. In an exploratory descriptive study, Madden, Kirkby, and McDonald (1989) used a coping assessment instrument, the 66-item Ways of Coping Checklist (WOCC; Lazarus & Folkman, 1984), and adapted it to sport. The resulting sport-specific instrument, the Ways of Coping with Sport (WOCS), was given to 21 elite middle-distance runners. The runners indicated on the WOCS how they would cope if they experienced a slump in competitive form. The most consistently reported forms of coping included seeking social support, increased effort and resolve, and problem-focused coping (e.g., make plan of action, derive several solutions).

Madden, Summer, and Brown (1990) continued this line of research on coping strategies with an evaluation of the influence of perceived stress on coping with competitive basketball. Results indicated that athletes reporting low levels of perceived competitive stress also reported less frequent use of coping strategies than athletes reporting high levels of perceived competitive stress. Highly stressed athletes reported using increased effort and resolve and more wishful thinking, general problem-focused coping, and emotionality than low-stressed athletes. These results are consistent with Lazarus and Folkman's (1984) suggestion that if perceived stress is low, then the need to implement coping strategies ought to be low.

A limitation of the aforementioned research is that athletes were asked to assess how they would cope in hypothetical situations as opposed to how they coped in a stressful situation they actually experienced. This approach is problematic because unless one experiences an actual stressful situation (e.g., a severe athletic injury), he or she will not necessarily appreciate the magnitude of stress encountered and all of the particular stress sources (e.g., the loss of self-esteem due to a lack of participation) and environmental factors (e.g., availability of social support resources) that may influence the coping process. Hence, subjects might predict they would use certain coping strategies in a hypothetical situation that they may be unable to employ in the actual situation, whereas strategies that would be used may not be anticipated. Therefore, to understand coping, individuals must be asked how they coped with situations that actually happened.

In an attempt to examine coping strategies used in actual stressful situations, Gould, Eklund, and Jackson (1993) interviewed all 20 members of the 1988 U.S. Olympic wrestling team regarding how they coped with the stress they encountered during the Olympics in Seoul, South Korea, particularly events influencing them during competition. Content analysis of these open-ended interviews revealed four general dimen-

sions of coping strategies: (a) thought control, (b) task focus, (c) emotional control, and (d) behavioral-based strategies. Thought-control strategies, defined as efforts by the wrestlers to impose order or constraint on their thought processes, were those most often reported (in 80% of the transcripts). Examples included blocking distractions, perspective taking, and positive thinking. Task-focus strategies were reported in 40% of the transcripts. These strategies reflected efforts by the wrestlers to control their thought content by focusing on the task at hand and concentrating on their goals. Efforts by the wrestlers to control their feeling state or activation level were labeled emotional-control strategies. The use of emotional-control strategies, which included arousal control (e.g., relaxation, breathing control) and visualization techniques, were reported by 40% of the wrestlers. Finally, behavioral-based strategies were defined as coping efforts characterized by overt behavioral responses. Examples of behavioral-based strategies (used by 40% of the wrestlers) included changing or controlling the environment (e.g., separating self from others, making plans to avoid irritants, distracting self with other activities, surrounding self with positive people) and following a predetermined familiar routine that helped the wrestler minimize uncertainty and focus his attention.

The open-ended interview approach to studying coping strategies employed by Gould, Eklund, and Jackson (1993) yielded rich information about how elite athletes deal with the stress of sport. This approach verified many of the coping strategies contained in the instrument developed by Madden and his colleagues (1989, 1990) and provided new information about how often strategies were employed and how particular strategies were used. Assessment of coping strategies actually used in stressful athletic situations eliminated the problem of having athletes identify potential coping strategies that might be used in hypothetical situations. Finally, the study found that the coping efforts of the Olympic wrestlers were not limited to particular strategies to dealing with a single stressor. Instead, they reflected a dynamic, complex process involving a number of strategies, often used in combination.

The Gould, Eklund, and Jackson (1993) study, however, as an initial effort, had limitations. First, athletes from only one sport were used. Given the scant research on coping strategies in sport, coping strategies used by other groups of elite athletes need to be identified. Second, the coping strategies assessed were only those used during the 2-week Olympic experience, with particular emphasis on coping used in performance situations. Additional strategies may be used throughout a competitive and training season, both in performance and nonperformance settings. Lastly, no links were drawn between the types of stressors experienced and the par-

ticular coping strategies used. An important question is whether athletes use the same types of coping strategies in all stressful situations or whether the coping strategy employed depends on the source of the stress.

In summary, this investigation, designed to extend the literature on coping strategies used by athletes, had two purposes. The first purpose (Purpose 1) was to identify and describe the coping strategies employed by national champion figure skaters after winning their titles. The second purpose (Purpose 2) grew out of the identification of stress sources experienced by these athletes (Gould et al., 1993b). Using those stress sources and the coping strategies that were identified in this study, we linked particular stress sources with coping strategies.

## Method

### Participants

The participants in this study were 17 of 20 (85%) Senior U.S. National Champion figure skaters who achieved their titles between 1985 and 1990. The skaters ranged in age from 18 to 33 years ( $M = 25$ ,  $SD = 4.3$ ). They had an average of 13 years of skating experience ( $SD = 3.1$ ). The sample consisted of three ladies singles, six pair (three teams of two), and eight dance competitors (four pairs of two), for a total of 10 female and 7 male subjects. Seven skaters had earned medals at either the World Championships or the Olympic Games.

### Interview Guide, Coping Questions, and Probes

An interview guide, comprised of a series of open-ended and guided questions, was developed for this investigation (see Note 1). Its purpose was to minimize interviewer bias and ensure that all participants were asked identical questions in the same order (Patton, 1987). During the portion of the interview devoted to coping strategies, the skaters were read the following explanation of coping strategies:

A coping strategy is any method you use to deal with a stressor to lessen its negative impact. There are many different ways to cope with stress, for example, ignore the stressor, engage in positive self-talk, use relaxation exercises. We want to know the specific methods you used to cope with the stress of being a national champion level skater.

After this was read, all subjects received the following instructions and probes:

### Question 1:

I would first like you to tell me about any specific coping strategies you used to deal with each of the stress sources you mentioned in the first part of the interview. I will read each item [stress source] back to you, and ask you to indicate whether there was a particular coping strategy you used to lessen the negative impact of the stressor (see Note 2).

### Elaboration Probe:

I need to fully understand what it was about each thing you mentioned that made it a coping strategy for you. So, thinking back, what was it about [skater's particular coping strategy] that made it a coping strategy?

### Question 2:

Were there any other coping strategies that you used in general during this time?

### General Probes:

What other coping strategies did you use? Are there any other coping strategies that you can think of?

These standardized probes were used to minimize bias in the interview and to ensure that responses from all participants were explored in equal complexity and depth by asking follow-up questions in a similar manner.

### Procedure

Skaters were contacted by mail or by phone, informed of the nature of the investigation, and asked to participate. A time for an extensive telephone interview was scheduled with the 17 skaters who agreed to participate. They were sent a copy of the interview guide before the telephone interview so that they could familiarize themselves with the types of questions that would be asked.

All interviews were conducted over the telephone by the third author and lasted between 90 and 180 min. Having all of the interviews conducted by the same individual allowed for consistency across interviews and reduced the variability that could occur if different individuals had conducted the interviews. The interviews were tape recorded and later transcribed.

### Data Analysis

The text was content analyzed using the procedures recommended by Patton (1990) and Scanlan, Ravizza, and Stein (1989) and described in detail elsewhere (Gould, Jackson, & Finch, 1992, 1993a, 1993b). Members of the

research team used the qualitative research methodology as delineated by Patton (1990), Taylor and Bogdan (1984), Lincoln and Guba (1985), and Bromley (1986). Analysis involved having the three researchers (a) independently familiarize themselves with all of the data by reading the transcriptions repeatedly and listening to the interview tapes, (b) identify as raw data themes specific quotes or paraphrased quotes by skaters on coping strategies, and (c) organize raw data themes into meaningful categories employing inductive and deductive procedures. Highest level themes, labeled "general dimensions," represented common themes of greatest abstraction or generality. These were comprised of subcategories labeled "first-order" and "second-order" themes. Raw data themes comprised the most specific sources of information. As an additional verification of the inductive analysis, the raw data themes, higher-order themes, and general dimensions were tested by conducting a deductive analysis whereby the investigators reread the transcripts and verified that all themes and dimensions were represented.

In all cases, consensus among the three investigators was necessary when identifying the sources of stress and coping strategies that arose from the interview data. Initial emphasis was placed on identifying the specific coping strategies of the 17 skaters and developing appropriate higher-order themes and general dimensions. After this was accomplished, coping strategy categories were linked to specific sources of stress reported by the skaters.

## Results

### *Purpose 1: Identification of Coping Strategies*

Coping strategies were defined as the various methods the skaters used to deal with the stress they experienced from the time they first won the national championship until their retirement from amateur skating or the time of the interview. When queried about the various methods they used to cope with stress, the skaters identified 158 unique coping strategies, or raw data themes. These 158 raw data themes were then organized into 51 first-order themes, 29 second-order themes, and 13 general dimensions (see Appendix). Each of these 13 general dimensions of coping strategies are discussed below (see Table 1).

*1. Rational thinking and self-talk.* This consisted of efforts by the skater to logically and rationally examine potential stressors, focus on what could be controlled, and view the stressor from a realistic perspective. This dimension was cited by the greatest number of skaters (13 skaters, or 76% of the sample) and accounted for

the greatest percentage of raw data themes (14%). It was comprised of the second-order themes of test/accept/deal with reality, self-referenced focus, and take a rational perspective about self and skating.

An excellent example of testing, accepting, and dealing with the reality of the situation emerged when one skater discussed how she dealt with criticism from judges. She stated, "I would try and gather all the valid points, sort through everything very carefully, take what you think is a good comment, disregard what you think is not a good comment." Similarly, an excellent description of a self-referenced focus is found in the following skater's comments:

We changed our attitudes about it, mostly. We decided we were going to skate for ourselves and we decided to take a totally different path for the United States. We were going to do something that was, let's see, how do I say this, depicted a story more or less, kind of like a ballet, and we didn't worry about whether the judges liked it or not, that we were going to do what we wanted to do and be happy doing it. And that's what we did, and our performance was a lot better so we were successful.

This skater also discussed how this self-referenced focus developed:

Then I decided after our defeat that there was so much negativism going on, as far as judges and this and that and negative comments that I felt, "listen, if I want to skate, I have to skate, I have to do it for myself. I'm not out here to do it for anyone else or for the U.S.A. I am here to do it for myself. I've worked this hard." I kind of got angry about it and I think that's where my views changed.

*2. Positive focus and orientation.* Seventy-one percent (or 12) of the skaters adopted a positive focus and orientation to cope with the stress of being a national champion. This general coping dimension was characterized by skaters' efforts to think and talk positively, be confident, and consciously perceive or turn potentially negative feelings and events into positive ones. It was comprised of 3 second-order themes: positive thinking and self-talk; positive belief in ability, program, and goals; and negative to positive self-appraisals, which accounted for 12.7% of the raw data themes. One skater's comments reflected a positive belief in her ability to succeed despite experiencing considerable adversity.

I never went to bed at night thinking we [she and her partner] can't do this. I kept thinking I'm a nervous wreck, and I'm having anxieties and I'm losing weight like crazy and I can't sleep at night and I can't eat, but I know I can do this. There was not one minute where I didn't believe I couldn't do it. I looked at the competition and yeah they were good, but I deserved it. I really felt like I had earned it, every ounce, more than anybody. I felt like I earned it, I deserved it and I could be as good a national champion as anybody.

The second-order theme of negative to positive self-appraisals was inductively arrived at from 2 first-order themes (a) accept self-image and competitive attitude as positive and (b) redefine negatives into positives. Comments like the ones below reflected the theme of redefining negative into positive:

I had a major change after we lost our title because all these people that I was trying to please couldn't have cared less....To regain our title I realized that none of those people, none of those people were important to my career... that only my partner, myself, and my coach, we were the ones who were important to the career and that we were the ones we were trying to please.

Another skater stated:

If it got really bad, I would just tell myself, "Well, they [the audience] are really ex-

cited to see you," and try to get that in my mind. That they are just there to see a good program and try not to put pressure on myself that way.

Additionally, a change to a positive self-image and redefining personal characteristics such as competitiveness and a perfectionistic attitude as positive rather than as detrimental were cited as ways skaters accepted their self-image as positive. Reframing their self-talk and other incoming information was also used as a coping strategy. Skaters changed negative statements to positives and used positive self-talk to redefine situations. Moreover, instead of perceiving feedback about competitors as threatening, one skater mentioned perceiving this feedback as an incentive for her to do better.

*3. Social support.* This general dimension focused on the skaters' efforts to seek out emotional, technical, and informational assistance from a variety of others. It was mentioned by 71% (or 12) of the skaters and accounted for 12.7% of the raw data themes. Social support was defined from 4 second-order themes representing the type of support given to the skater and from whom the support came. The second-order themes were support from coach, support from family and friends, unconditional love and support, and assistance from a sport or clinical psychologist. Talking to the coach, positive reinforcement from the coach, and general support from the coach were indicative of raw data themes reflecting support from the coach. The second-order coping strategy of support from family and friends was broken down into 2 first-order themes: support from extended family and support from family and friends. The support of extended family members such as the partner's mother and the family with whom the skater was living was cited as an example of this type of coping strategy. Talking to supportive friends and family members and

**Table 1.** Coping strategy general dimensions, number and percentage of skaters citing each general dimension, and percentage of total raw data themes represented by each general dimension

Skaters citing <i>n</i>	Percent	Coping strategy/general dimension	Percent of total raw data themes
13	76	Rational thinking and self-talk	14.0
12	71	Positive focus and orientation	12.7
12	71	Social support	12.7
11	65	Time management and prioritization	13.3
11	65	Precompetitive mental preparation and anxiety management	12.7
11	65	Training hard and smart	7.0
8	47	Isolation and deflection	7.0
7	41	Ignoring	2.5
6	35	Uncategorized strategies	4.4
5	29	Reactive behaviors	6.3
4	24	No coping strategy	0.6
3	18	Striving for a positive working relationship with partner	4.4
2	12	Changing to healthy eating attitudes and behaviors	2.5

receiving support and reassurance from them were examples of support from family and friends. This support came both directly (face-to-face contact) and over the telephone.

Unconditional love was an important coping strategy for two skaters. One emphasized that her family unconditionally loved her independently of her skating. Another skater spoke about his pet cat, who showed what the skater perceived as affection for him regardless of the situation.

Additionally, approximately one third of the skaters mentioned assistance from a sport or clinical psychologist as a mental preparation and anxiety management coping strategy. This type of assistance ranged from attending a single group session at which positive self-talk and visualization were discussed to seeing a clinical psychologist for personal problems. Four skaters (24%) also indicated that they saw a sport psychologist five to six times a year to discuss their concerns and develop the mental skills needed for competition.

4. *Time management and prioritization.* This general coping dimension emerged from the second-order themes of making time for personal interests and growth, time utilization, and day-to-day goal focus. It dealt with the skaters' attempts to prioritize tasks and manage time, as well as conscious efforts to take time for themselves. Time management and prioritization was cited by 65% of the skaters (or 11) and represented 13.3% of the raw data themes.

While the skaters in this investigation spent many hours in preparation for competition and in competition, they also indicated that it was important to take time for their own growth and interests. Skaters accomplished this in two ways: (a) doing things outside of skating and (b) taking time for self-awareness and meeting their own needs.

As one skater indicated:

I use to zip out of town every weekend just to get away. I would go to a friend's house. I'd say, "I'm out of here for the weekend. I can't deal with this [skating] anymore." That really helped a lot.

Another vehicle for coping with this stress was for the skaters to take time for self-awareness and fulfillment of their own needs. Examples of these coping strategies included the following:

Just getting away sometimes and pampering myself a bit. Give myself rewards, not having to work out on certain days. Like not be a figure skater for a couple of days. Enjoy myself....I think it's effective because you can't push, push, push all the time.

Another skater commented:

I guess I always worked a lot. Before the Olympics, I skated. I was successful at skating. I was in the Olympics and I worked three jobs, so that was like something real big for me. It was something I could brag about. I remember feeling a sense of pride like "maybe I'm not that great of a skater, but look at what I do."

The second-order theme of time utilization was inductively arrived at from 2 first-order themes: (a) prioritizing and managing time and (b) making an effort to give time.

For example, one skater commented on the importance of prioritizing and managing time by saying no.

You have to learn how to say no sometimes. You have to get your priorities straight, and I feel that it's something that every new champion does not learn until they have been through it for a season.

The final second-order theme, day-to-day goal focus, was represented by coping strategies such as taking a step-by-step approach to dealing with stress.

5. *Precompetitive mental preparation and anxiety management.* Cited by 65% (or 11) of the skaters and accounting for 12.7% of the raw data themes, this general dimension consisted of cognitive, physical, and behavioral techniques used by the athletes to cope with the cognitive and somatic ramifications of competitive stress. It was comprised of 7 first-order themes and was arrived at inductively from 20 unique coping strategies. The 7 first-order themes included mental practice techniques, reflections on past positive performances, narrow focus, precompetitive ritual, physical release of stress, relaxation techniques, and acknowledging and dealing with nervousness. These 7 first-order themes are described below. Skaters defined mental practice techniques with terms such as visualization, imagery, and mental rehearsal. The following quotation reflects these mental practice techniques:

I did a lot of visualization. A lot of that.... It's a coping strategy. It felt like you did more run-throughs. You went through the program perfectly, more times. So, it gave you a sense of security and understanding about what was to take place and how it was supposed to go. It just gives you a calmer, more serene way.

Watching videos of best performances and reflecting back on positive experiences were used as mental

preparation techniques defined as reflections of past positive performance. Another coping strategy skaters used was narrowing their focus in a consistent manner. One skater discussed this strategy:

Getting my mind focused. Being really efficient with my thoughts. Not letting anything interfere. Not becoming distracted. I found a way of doing this by talking to myself, by visualization, by taking my time, by staying away from people who were most distracting to me.

Skaters coped by following a precompetitive ritual. This enabled them to focus and not let anything interfere with their preparation for competition. One skater discussed his precompetitive ritual in the following manner:

I had a lot of rituals in terms of getting dressed. At the building I had a lot of rituals about how I was, how I would approach the arena or the ice....I follow an order...I think the order is what's important at a very stressful time or at a competitive time.

The physical release of stress was another coping strategy used by the skaters. This was accomplished by walking out the skating program, stretching, running, and directing nervous energy elsewhere (e.g., rubbing hands together). Relaxation exercises were also cited as an important coping strategy. Related to the release of stress and relaxation techniques was the skaters' acknowledging and dealing with their nervousness. This first-order theme emerged from five raw data themes and was defined as acknowledging nervousness, realizing that everyone gets nervous and that it is who handles the nerves best that counts, using the nervous energy in a positive way, and facing the anxiety head on. The themes of acknowledging and dealing with nervousness were expressed in the following sentiments:

Acknowledging that you were nervous. Using your nervous energy in a positive way. That was totally effective. To acknowledge it first of all. Instead of saying, "No, I'm not really nervous. I'm fine," and then going up and totally freaking out, you just say, "I think I'm ok. I'm just really anxious to get out there and use it. Don't let it just totally screw you up." Everybody gets nervous. It's just who handles nerves best.

6. *Training hard and smart.* Training hard and smart reflected the national champion skaters' efforts

to reduce stress by working hard and taking responsibility for their own training while being receptive to new training techniques. A majority of the skaters (11 or 65%) used this coping strategy as a method of dealing with the stress of being a national champion. The second-order themes of hard-work ethic and taking responsibility for and keeping an open attitude to one's own training defined this general coping dimension of training hard and smart. The second-order theme of hard-work ethic was represented by 3 first-order themes, including (a) forcing yourself to try and get through everything, (b) a "just do it" attitude, and (c) hard work. Additional examples include knowing we [skater and partner] had to do it and hard work and training.

Two first-order themes, experimenting with different options and taking responsibility, defined the second-order theme of taking responsibility for and keeping an open attitude to one's own training. Skaters used the coping strategy of trying new things to deal with the many stressors a national champion faces. Keeping their minds open to different ideas was also cited as a coping strategy representative of experimenting with different options.

National champion figure skaters also realized the importance of taking responsibility for their own training. This was accomplished by staying in shape on their own (in the case of a partner's injury), self-teaching, planning, and training. The realization that one must do it oneself also indicated this general dimension. The following comments illustrate the raw data themes focusing on doing things for yourself:

I think the major coping strategy we had was self-teaching. We would go into the rink and do it on our own. The coaches would come back and say, "Wow!"...You know we had coaches telling us not to go to competition and things like that, and we said, "no we can do it" and we did.

7. *Isolation and deflection.* Isolation and deflection were efforts to cope with stress by physically or psychologically isolating oneself from the stressor in some manner or deflecting a stressor by not letting it affect one's mental skill. Forty-seven percent (or 8) of the skaters used elements of this general dimension. Three 2nd-order themes representing types of isolation and deflection emerged. They included (a) not letting troublesome issues get to me, (b) avoiding or having others screen the media, and (c) keeping to self at competition.

The second-order theme of not letting troublesome issues get to me was arrived at from 3 first-order themes, including (a) toughening self up to tune out negative reinforcement, (b) not letting stressful things get to me, and (c) blocking out others' expectations. Skaters did

this by learning to handle minor setbacks, not letting a number of situations bother them, and increasing their emotional resistance to negative reinforcement by increasing their resilience and blocking out others' expectations of them.

Another method of isolation and deflection was the second-order theme of avoiding or having others screen the media. This was accomplished by the skaters avoiding the media themselves or having significant others, such as parents or coaches, screen the media or keep members of the media away from the skater.

The 3rd second-order theme, keeping to self at competition, was represented by two skaters who stayed away from people and distractions before competition. For example, one skater said:

I would always be alone, always. Not even my coach would be stupid enough to try to talk to me at that point. If they did then they found out very fast that I simply wasn't listening to them. By that time it's too close [to competition] and I've tuned everything out.

8. *Ignoring.* Ignoring sources of stress as a way of coping with them was used by 41% (or 7) of the skaters. This general dimension consisted of the athletes' efforts to ignore stress sources until an appropriate time or ignore them altogether. One skater expressed the strategy of ignoring by stating, "Sometimes you try to ignore it [being a public figure and expectations] just to deal with the immediate problem. But long term, you have to deal with it."

Coping with stress by ignoring the stressor was altogether differentiated from ignoring the source of stress until a more appropriate time. Forty-three percent of the skaters who used ignoring as a coping strategy mentioned ignoring the source of the stress in the short term, ignoring it initially while weighing the pros and cons of the situation, or ignoring things/postponing decisions. These skaters seemed to use ignoring as an effective coping strategy. Conversely, the remainder of the skaters who used ignoring (57%) seemed to ignore both stress sources and the problems they probably should have dealt with.

9. *Uncategorized strategies.* This dimension was composed of seven unclassifiable raw data themes that were cited by 35% (or 6) of the skaters. That is, the seven themes did not coherently fit with any other general coping dimension. However, this did not reduce the salience of the coping strategy to the individual skaters who mentioned them. The seven uncategorized strategies were (a) knowing and reading own body; (b) being a good interviewee; (c) becoming tired of fighting with coach, so giving up fighting; (d) supporting coach; (e) undergoing substance-abuse treatment; (f) knowing that

skating attracts people interested in helping financially; and (g) not taking any performer for granted.

10. *Reactive behaviors.* Reactive behaviors were ill-conceived or poorly thought-out behaviors that occurred as a reaction to a stressor. Unfortunately, five skaters (29%) resorted to these behaviors to deal with the stress of being a national champion figure skater. These behaviors included sleeping a great deal, walking out of the rink, excessive talking on the telephone, trying to change everything in life, and getting angry. Other behaviors were more dangerous or unsafe. Examples of these types of reactive coping strategies included drinking alcohol, reckless behavior, being given alcohol to help relax, eating out of anxiety, and inducing vomiting.

11. *No coping strategy.* Not using any coping strategy for dealing with sources of stress was mentioned by four (24%) skaters throughout the interviews. That is, when confronted with a source of stress, the skater had no identifiable coping strategy that was used to help alleviate the stress. Lack of a strategy may not be detrimental in some situations, yet it was of concern that one skater mentioned this lack of a coping strategy three times.

12. *Striving for a positive working relationship with partner.* This general dimension emerged from interview quotes given by three pair or dance team skaters (18%) and generalized to 3 first-order themes of (a) empathizing and communicating with partner, (b) compromising/working with partner, and (c) giving confidence to one another. It consisted of skaters' efforts to reduce partner-induced stress by facilitating partner interaction and teamwork. The coping strategy of empathy and communication with partner was accomplished by talking with one another and trying to understand and communicate with the partner. Compromising and working together was used as a coping strategy by realizing that both skaters in the partnership look at things differently and working together and compromising to make it work. Another coping strategy was for partners to give confidence to one another.

13. *Changing to healthy eating attitudes and behaviors.* This coping strategy was unique to two female skaters (12%) because no male skaters mentioned weight or eating behaviors as a source of stress during their skating careers. The strategy was characterized by cognitive and behavioral efforts to cope with stress related to eating attitudes, behaviors, and emotions. Skaters reminding themselves that loved ones cared for them regardless of their weight was a particular coping strategy in this general dimension. Also mentioned were adopting a new, positive attitude to eating and body type and taking control of their eating, that is, being aware of what they eat and what they should be eating. Eating only when they were hungry was another behavioral strategy mentioned to cope with the stress of weight.



### Purpose 2: Relationship Between Coping Strategies and Stress Source Dimensions

Previous articles in this series (Gould et al., 1992, 1993b) described the seven primary sources of stress experienced by these elite skaters. These stress source dimensions included (a) physical demands on skater resources, (b) psychological demands on skater resources, (c) environmental demands on skater resources, (d) expectations and pressure to perform, (e) relationship issues, (f) life-direction concerns, and (g) uncategorized stress sources. As indicated in the Method section, the skaters were asked what particular coping strategies they used with each stressor they faced. This enabled the researchers to determine what coping strategy dimensions were employed to deal with each stress source.

All coping strategy dimensions linked to a particular stress source were examined by analyzing the number of times they were cited as a coping strategy for that source of stress. This number was then transformed into a percentage of all coping strategies cited for that stress source. Hence, the most frequently cited coping

strategies for each stress source were identified. Table 2 depicts the coping strategies comprising at least 9% of all coping strategies linked to each of the seven sources of stress. It shows how the investigators linked coping strategy use and stress sources.

When skaters were faced with physical demands on their resources, such as body weight and injuries, the four most frequently used coping strategies (accounting for 76.1% of the coping methods) were rational thinking and self-talk, precompetitive mental preparation and anxiety management, changing to healthy eating attitudes and behaviors, and training hard and smart. Psychological demands on skater resources, such as competitive stress and self-doubts, were tempered through precompetitive mental preparation and anxiety management, positive focus and orientation, and training hard and smart (75.8%). The coping strategies of time management and prioritization and isolation and deflection (77.3%) were employed when faced with environmental demands on skater resources, such as time and media demands and financial stress. When faced with expectations and pressure to perform, skat-

**Table 2.** Most frequently cited coping strategy general dimensions associated with specific stress sources

Stress source	Coping strategy general dimension	Percent of general coping dimension accounted for
Physical demands on skater resources	Rational thinking and self-talk	23.8
	Precompetitive mental preparation and anxiety management	19.0
	Changing to healthy eating attitudes and behaviors	19.0
	Training hard and smart	14.3
Psychological demands on skater resources	Precompetitive mental preparation and anxiety management	36.4
	Positive focus and orientation	27.3
	Training hard and smart	12.1
Environmental demands on skater resources	Time management and prioritization	45.5
	Isolation and deflection	31.8
Expectations and pressure to perform	Positive focus and orientation	21.2
	Training hard and smart	15.2
	Rational thinking and self-talk	15.2
	Social support	12.1
	Precompetitive mental preparation and anxiety management	9.1
Relationship issues	Positive focus and orientation	17.5
	Social support	15.0
	Striving for a positive working relationship with partner	12.5
	Isolation and deflection	12.5
	Rational thinking and self-talk	12.5
Life-direction concerns	Time management and prioritization	45.5
	Rational thinking and self-talk	27.3
Uncategorized stress sources	Reactive behaviors	26.3
	Social support	26.3
	Isolation and deflection	21.1

ers used coping strategies such as positive focus and orientation, training hard and smart, rational thinking and self-talk, social support, and precompetitive mental preparation and anxiety management (72.8%). Challenging relationship issues were ameliorated through positive focus and orientation, social support, striving for a positive working relationship with partner, isolation and deflection, and rational thinking and self-talk (70%). Time management and prioritization and rational thinking and self-talk were the two most frequently cited coping strategies (72.8%) for handling life-direction concerns such as worries about life and skating career. Reactive behaviors, social support, and isolation and deflection were the most frequently used coping strategies (73.7%) for uncategorized stress sources such as lack of training enjoyment, personal crises, unexpected disruption at Olympic Games, skating politics, substance-abuse struggles, and depression from unfulfilled expectations.

## Discussion

### *Purpose 1: The Nature of Coping*

The findings of this study clearly demonstrate that coping is a complex process for elite athletes. Thus, these results support the general psychology research on coping (Compas, 1987; Folkman & Lazarus, 1985), as well as current sport psychology research on elite athletes and coping (Gould, Eklund, & Jackson, 1993). The skaters sampled in this investigation did not simply react to stress in a one-dimensional and fixed fashion by adopting a single coping strategy or style that was automatically employed in response to all stressful situations. Rather, in this investigation coping was found to involve an ongoing process in which skaters consistently appraised and reappraised various situations and demands and initiated a wide variety of cognitive and behavioral coping responses, often simultaneously. Hence, these findings clearly support Lazarus and Folkman's (1984) view of coping, which involves "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Because of this ongoing coping process, sport psychology specialists teaching new coping strategies to elite athletes should assess the athletes' current coping strategies and determine how new strategies may interact with or build on them.

Also consistent with the coping strategy research of Lazarus and Folkman (1984) was the identification in the present sample of both emotion-focused and problem-focused coping responses. That is, some coping strategies, such as social support, binge eating, negative to positive self-appraisals, and ignoring, were often used

to cope with the emotional response that resulted when an event was perceived as stressful. However, other coping strategies were more problem-focused. Time management and prioritization, training hard and smart, isolation and deflection, and systematic relaxation focused on the stressor itself and avoiding, changing, or alleviating it. Thus, these coping strategies are defined as problem-focused (Lazarus & Folkman, 1984). Unfortunately, it was not possible to simply classify coping strategies as problem- or emotion-focused. Rather, as was the case in the Gould, Eklund, and Jackson (1993) wrestling investigation, coping was found to be a complex process in which the athlete can simultaneously be striving to both manage the stressful environment and regulate distressing emotions. In some cases, then, a coping strategy (e.g., social support) was used by the same athlete to regulate emotions (e.g., see people who make you feel better) and in another instance to manage the environment (e.g., seek advice from knowledgeable others).

The skaters also reported using both adaptive and maladaptive coping strategies, thus supporting the work of Carver et al. (1989). For example, it was encouraging to note that the majority of coping strategies used by these elite athletes were adaptive (e.g., precompetitive mental preparation and anxiety management, social support, training hard and smart, and rational thinking and self-talk) and complement current practices in applied sport psychology. However, reactive behavior strategies such as excessive or inappropriate alcohol consumption, walking out of the ice rink, excessive sleep, anger, and bulimic behavior were evident and would be characterized as dysfunctional or maladaptive by most sport psychologists. Additionally, other coping strategies, such as ignoring, isolation, and a lack of discernible coping strategies to deal with a stressor, also could at times be deemed maladaptive. Because maladaptive coping strategies were identified, efforts must be made to educate and provide psychological support to athletes who use potentially destructive coping behaviors.

When the present findings are compared to the Gould, Eklund, and Jackson (1993) wrestling coping strategies, some important points emerge. First, the vast majority of higher-order themes and dimensions found by Gould, Eklund, and Jackson fit within or overlap higher-order themes and dimensions emerging in this study. For example, many of the emotional control, behavioral, and task-focus strategy dimension higher-order themes found in the wrestlers (e.g., follow same routine, focus on what you want to do) fit into the precompetitive mental preparation and anxiety management dimension that emerged from the present data. Similarly, many of the thought-control strategy dimension higher-order themes found in the wrestlers (e.g., rational self-talk, positive thinking) could be easily classified in the rational thinking and self-talk, positive

focus and orientation, and isolation and deflection dimensions that emerged from the present study.

Moreover, the most frequently mentioned coping strategies in both groups were similar. Olympic wrestlers cited thought control strategies most frequently, and national champion figure skaters cited rational thinking and self-talk and precompetitive mental preparation and anxiety management strategies most frequently. This illustrates the importance of these dimensions across samples and suggests that they should be included in any future coping assessments.

Another important point, evident in the comparison of the findings of these two studies, is that a number of new coping dimensions and higher-order themes emerged in the current study. For example, social support, time management and prioritization, training hard and smart, ignoring, and reactive behaviors were dimensions that did not emerge in the wrestling investigation. In all likelihood the new dimensions and themes resulted from the broader context (practice as well as competition) and time frame (over several years vs. one Olympic games) used in this study as compared to the Gould, Eklund, and Jackson (1993) wrestling investigation.

Taken together, the results of both studies provide a fairly comprehensive picture of the coping strategies employed by elite athletes. Interestingly, the categories that emerged in these two sport-specific interview studies align better with the categories and subscales contained in the COPE inventory (Carver et al., 1989) than the WOCC (Lazarus and Folkman, 1984) or the WOCS inventory (Madden et al., 1989). Hence, the COPE may be the best quantitative instrument to use in future sport coping studies or to adapt as a sport-specific measure of coping.

#### *Purpose 2: Links Between Coping Strategy Dimension and Stress Source*

The findings of this investigation for the first time reveal the links between the sources of stress athletes face and the coping strategies mobilized to alleviate these stressors. The skaters in this study clearly implemented different types of coping strategies depending on the stressors they encountered. For example, when faced with physical or psychological demands, over half of the skaters used rational thinking and self-talk, changing to healthy eating attitudes and behaviors, and precompetitive mental preparation and anxiety management. Conversely, when the skaters encountered environmental demands, time management and prioritization and isolation and deflection were the most frequently used coping strategies. Although certain coping strategies (e.g., precompetitive mental preparation and anxiety management, positive focus and orientation) were

adopted across a variety of stressors, each stress source had a unique cluster of coping strategies related to it.

Delineating the links between the coping strategies elite athletes use to manage stress and the sources of stress experienced by the athletes enables sport psychologists to understand the coping strategies that are embraced when different stressors arise. This information may assist applied sport psychology specialists in developing and implementing stress management programs.

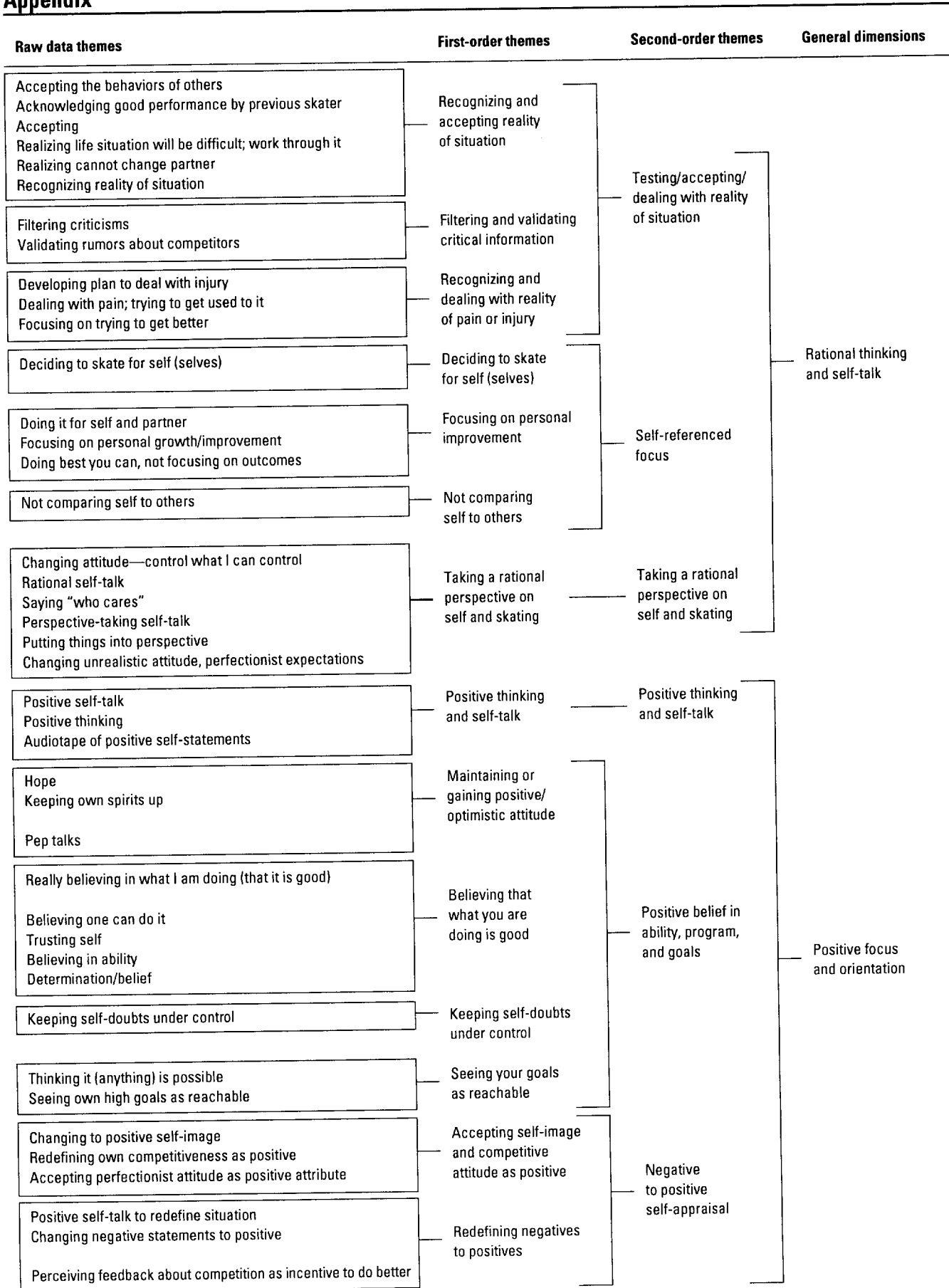
#### *Summary and Future Research*

As with any initial investigation, as many questions have been raised in this study as answered. For example, an important area for future research involves assessing the effectiveness of coping strategy interventions designed to assist elite athletes in coping with the stress of high-level competition. In particular, while athletes may use a plethora of coping strategies to alleviate stress, which of these strategies is most effective in decreasing the stress and which strategies facilitate performance?

An additional research area includes examining coping from both a trait and state perspective. Researchers (e.g., Folkman & Lazarus, 1980; Lazarus & Folkman, 1984) have distinguished between general coping styles and specific coping strategies similar to the demarcations made between trait anxiety and state anxiety (Spielberger, 1966). That is, individuals have strategies they typically use to cope with stress, but they may adjust or employ different strategies according to the demands of the situation. For example, Bouffard and Crocker (1992) longitudinally examined coping in response to physical activity challenges faced by individuals with physical disabilities. Results revealed that these subjects did not consistently employ the same coping strategies at all times or across all of the challenging situations encountered. This suggests that coping was best explained by a fluid person-by-situation interaction as opposed to a more rigid "personal style" or "situationally determined" response. Thus, further examination of the nature of this person-by-situation coping response interaction and the identification and possible contribution of coping strategy traits (styles) and states seems warranted.

Lastly, while these highly successful elite skaters employed a number of diverse coping strategies, many of which are in line with current thinking in applied sport psychology (e.g., rational thinking and self-talk, positive focus and orientation, social support, time management and prioritization, precompetitive mental preparation and anxiety management), vast individual differences in coping responses are evident between skaters. It is imperative that these differences be further examined by researchers and practitioners alike.

**Appendix**



## Appendix (cont.)

Raw data themes	First-order themes	Second-order themes	General dimensions	
Sport psychologist Coach brought in clinical psychologist	Assistance from sport/clinical psychologist	Assistance from sport/clinical psychologist	Social support	
Support from coach Competing with coach to try to lose weight Positive reinforcement from coach Positive reinforcement from coach and self Talking to coach	Support from coach	Support from coach		
Support from partner's mother Support from family living with	Support from extended family	Support from family and friends		
Talking more and more clearly about things Talking to others Talking to supportive, positive people Talking with friends Talking to mother Seeking support through phone calls Loved one's reassurance Supportive phone calls from family Support from mother	Support from family and friends			
Unconditional love from family and friends	Unconditional love	Unconditional love and support		
Having pet cat as silent friend	Having pet cat as silent friend			
Keeping self busy Getting out with friends, have fun Getting out of town every weekend Flying Being a student, having other things around	Doing things outside of skating	Making time for personal interests and growth		
Doing things for self Getting away and pampering self Solitude time  Trying to please self  Writing in journal	Time for self-awareness and meeting own needs			
Prioritizing Keeping priorities straight Naming priorities  Time management Staying organized  Learning to say no	Prioritizing and managing time			Time utilization
Making effort to give time	Making effort to give time			
Taking it (school) step-by-step Attitude of taking it day-to-day Planning ahead, setting goals, working toward them Focusing on specific daily goals	Day-to-day goal focus	Day-to-day goal focus	Time management and prioritization	

Appendix (cont.)

Raw data themes	First-order themes	Second-order themes	General dimensions
Visualization Imagery Going over things in my mind Mental rehearsal	Mental practice techniques	Mental practice and reflections	Precompetitive mental preparation and anxiety management
Watching videos of best performance Reflecting back on positive experiences	Reflections of past positive performances		
Narrowing focus consistently Narrowing focus	Narrowing focus	Narrow focus	
Focusing/not letting anything interfere Following an order/precompetitive ritual	Precompetitive ritual	Precompetitive ritual	
Physically "walking out" program Stretching Running Directing nervous energy elsewhere	Physical release of stress	Physical relaxation strategies	
Relaxation exercises	Relaxation techniques		
Acknowledging that I am nervous Realizing everyone gets nervous, it's who handles it best Using nervous energy in a positive way Acknowledging and dealing with stress Facing the anxiety head on	Acknowledging and dealing with nervousness	Acknowledging and dealing with nervousness	
Forcing self to try to get through everything	Forcing self to try to get through everything	Hard-work ethic	Training hard and smart
Knowing we had to do it Just "doing it"	"Just do it" attitude		
Working hard Working out	Working hard		
Trying new things Keeping mind open to different ideas	Experimenting with different options	Taking responsibility for and keeping an open attitude to own training	
Keeping in shape on own Self-teaching, planning, and training Taking responsibility Realizing I must do it myself	Taking responsibility yourself		
Toughening self up to tune out negative reinforcement	Toughening self up to tune out negative reinforcement	Not letting troublesome things get to me	Isolation and deflection
Not letting things get to me Learning to deal with minor setbacks Not letting a lot of things bother me	Not letting stressful things get to me		
Blocking out people Trying to block others' expectations at competition	Blocking out others' expectations		
Avoiding media people Screening by coach Mother and coach keeping media away—limiting exposure	Avoiding or having others screen the media	Avoiding or having others screen the media	
Keeping alone at competition Staying away from people, distractions	Keeping to self at competition	Keeping to self at competition	

## Appendix (cont.)

Raw data themes	First-order themes	Second-order themes	General dimensions
Ignoring it in short term Ignoring it initially, then weighing pros and cons Ignoring things, postpone decisions	Ignoring until appropriate time	Ignoring	Ignoring
Ignoring	Ignoring		
Knowing and reading own body Being a good interviewee Becoming tired of fighting with coach, so giving up fighting Supporting coach Substance-abuse treatment Knowing that skating would attract people interested in helping financially Not taking any performer for granted	Uncategorized sources	Uncategorized sources	Uncategorized sources
Reckless behavior Trying to change everything in life Getting angry Being given alcohol to help me relax Drinking Eating out of anxiety Induced vomiting Sleeping a lot Walking out of the rink Excessive talking on telephone	Reactive behaviors	Reactive behaviors	Reactive behaviors
No coping strategies (none)	No coping strategies	No coping strategies	No coping strategies
Talking with one another Trying to understand and communicate with partner Communication with partner	Empathizing and communicating with partner	Striving for a positive working relationship with partner	Striving for a positive working relationship with partner
Working together to make it work Compromising with partner Realizing that you both look at things differently	Compromising/working with partner		
Giving confidence to one another (partner)	Giving confidence to one another (partner)		
Boyfriend likes me no matter what (relative to weight) Good, new attitude to eating and body type Taking control, be aware of weight, what can eat, etc. Eating when hungry	Changing to healthy eating attitudes and behaviors	Changing to healthy eating attitudes and behaviors	Changing to healthy eating attitudes and behaviors

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## Notes

1. The interview guide is available on request from the first author.
2. The first portion of the interview focused on sources of stress experienced as a national champion. See Gould, Jackson, and Finch (1993b) for details.

## Authors' Notes

This article is one of a series of manuscripts derived from an extensive qualitative study of sources of stress and coping strategies in U.S. National Champion figure skaters (Gould, Jackson, & Finch, 1992) funded by a grant from the Sport Science and Technology Division of the United States Olympic Committee. Other articles in the series focused on the experiences of national champion figure skaters (Gould, Jackson, & Finch, 1993a), sources of stress in national champion figure skaters (Gould, Jackson, & Finch, 1993b), and coaching recommendations offered by national champion figure skaters (Gould, Finch, & Jackson, 1993). A copy of the full report is available from the U.S. Olympic Committee Library in Colorado Springs, CO. Send other correspondence to Daniel Gould, Department of Exercise and Sport Science, University of North Carolina at Greensboro, Greensboro, NC 27412-5001.