

Anxiety in Elite Young Gymnasts:

Part I - Definitions of Stress and Relaxation

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The world of high-level gymnastics is characterized by intensive practice demanding competition, the public display of skills, and evaluation by others. This environment may be overwhelming for gymnasts of all ages but less is known about the nature, determinants, and effects of anxiety for the serious, young competitor. How such athletes view and respond to stress in some ways will determine their success in gymnastics as well as the quality of their gymnastics experience.

Competitive stress is defined as the "negative emotions, feelings, and thoughts that one might have with respect to their [athletic] experience such as feelings of apprehension, anxiety, muscle tension, nervousness, physical reaction, thoughts centered on worry and self-doubt, and negative statements" (Scanlan, Stein, and Ravizza, 1991, p. 105). These feelings and emotions arise from an imbalance between athletes' perceptions of their abilities and the perceived demands of the situation (Martens, 1987). In essence, competitive stress is an individualized process that is greatly due to how each athlete perceives his/her sport world. It is the purpose of this first article in a series to examine the personal definitions of stress among young gymnasts to learn more about their anxiety responses. To provide a potential telling contrast, definitions of the relaxation state were also explored. Knowledge of such subjective definitions is critical if we hope to maximize skill development and maintain the involvement of young talented gymnasts.

Method

Seventy-five female members of the 1993-1994 TOPs gymnastics team, between the ages of 9-12 (mean age was 9.98 years) were administered a multi-section questionnaire by the first author (Duda) at a National Camp. When completing the instrument, the gymnasts were encouraged to answer honestly and in their own words. They were assured that their responses would be kept confidential and that only group-based findings would be reported.

The inventory comprised a number of open-ended statements/questions focused (1) on the characteristics of the stress and relaxation states, (2) the perceived causes of stress, (3) the ways gymnasts manifest stress, and (4) the ways gymnasts attempt to manage their anxiety. In terms of personal definitions, the gymnasts were asked to complete the statements "Stress is . . ." and "Relaxation is . . ." specific to their participation in gymnastics.

Responses were reviewed by the researchers and placed into thematic categories to determine how the gymnasts as a group experience these different states. The frequency of responses classified in each category was calculated.

Results

The findings indicated that young, talented gymnasts define stress as a negative response which is encountered somatically, cognitively, and emotionally as well as in terms of the

situation in which they find themselves. Relaxation was deemed to be composed of the positive aspects of the aforementioned elements. As shown in [Table 1](#), four broad thematic categories emerged. In each case, exemplary quotations and the percentage of responses classified within the particular category are provided.

Discussion

Sport psychology research has demonstrated that competitive stress leads to performance decrements, a greater likelihood of injuries, and more attentional difficulties (Beuter and Duda, 1985; Burton, 1988; Williams, Tonymon and Anderson, 1991). Studies have also shown that anxiety corresponds to decreased enjoyment and higher dropout rates (Smith, 1986). Consistent with this literature, an examination of TOP Team members' perceptions of stress revealed this experience to be an unpleasant and undesirable state that is manifested in the way they think, feel, and act. This finding informs us that young, elite gymnasts are conscious of what stress is like within their athletic environment. Stress was especially associated with fearful and/or frustrating emotional reactions to what was required in the sport. Based on their responses, it was apparent that the current sample of gymnasts did not view being anxious as conducive to optimal performance or related to a quality gymnastics experience.

The members of the TOP Team were also cognizant of the contrasting, positive dimensions associated with relaxation. They viewed relaxation as marked by affirming thoughts, good feelings and, in particular, a desirable condition in terms of their bodies. These results are also aligned with the sport psychology literature which suggests that relaxation is "a relaxed state of mind which prepares the performer to produce more effectively than if it were in a slightly tensed state, just as a relaxed muscle can contract more effectively than a slightly tensed one" (Kubistant, 1986 p. 126). Thus, when a gymnast is relaxed, it should facilitate her concentration, help conserve energy and assist the athlete in controlling minute aspects of her performance.

To decrease the frequency and intensity of stress responses (and foster the occurrence of relaxation states), we need to know what gymnasts perceive to be causing them to feel anxious rather than relaxed. The perceived sources of stress in the case of members of our TOPs National Team will be the focus of the next article in this series.

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Table 1

Definitions of Stress and Relaxation among Young Gymnasts

"Stress is . . . "	"Relaxation is . . . "
<p>Negative Affective Responses (42 . 5%) "Frustration. It makes you sometimes angry, scared, tense, or nervous." You become tense, nervous, and scared and sometimes even discouraged about something." "When you get very nervous or just nervous. Or when you are trying to do a skill and you are afraid to go for it."</p> <p>Negative Bodily Responses (26 . 3%) "You get tense, scared, and nervous. Stress is when your body gets tight and you start shaking." "You break out into a sweat your muscles tense up, you become 'paralyzed' and you can't do anything the way you want to." "You are nervous and tight in the stomach. You sweat a lot and are very tense."</p> <p>Negative Situations Created by Self and/or Others (15 . 6%) "A pressure that is really heavy. Stress is when you have all sorts of pressures on you and it's not comforting at all." "You are tight and nervous about something BIG coming up or anything very important." "Nervous, not doing good and then getting yelled at, ...in competition."</p> <p>Negative Thoughts Concerning Personal Performance (13 . 8%) "You are scared to do a trick or worried you might get hurt. When you are worried to do</p>	<p>Positive Affective Responses (29 . 1%) "You're calm and cheery... and you can joke around." "A great feeling, ... you are happier."</p> <p>Positive Bodily Responses (36 . 4%) "Your muscles or body is all loose and you feel comfortable." "You're nice and calm, you have control over what your body is doing." "When my muscles are loose."</p> <p>Pleasant Situations Created by Self and/or Others (6 . 9%) "You are totally relaxed and you're doing everything you need to." "Like getting your mind off something stressful and just doing nothing." "Not a pressure."</p> <p>Positive Thoughts Concerning Personal Performance (24 . 5%) "You aren't nervous and when you believe in yourself and know you can do it." "You feel confident and feel good about yourself." "You are just thinking good thoughts."</p>

it."

"I feel nervous or worried about if I will make myself happy with my performance."

"You are really nervous and don't think you can do it. And you can't calm yourself down."