Norwegian Junior Football Players – Player’s Perception Of Stress According To Playing Time

Stig Arve SÆTHER¹ • Nils Petter ASPVIK¹

This study’s purpose was to investigate how junior football players representing a professional club experienced stressors according to their given playing time. Participants (N=43) represented 3 football clubs (mean 17.4 yrs). The results showed that the players playing all matches reported a lower level of stress related to performance and future stress compared to the players playing few matches. Furthermore, evaluation and performance stress was reported higher among players given few matches compared to players playing most matches. Even so, the present study found that Norwegian junior players have a low level of stress. Based on this fact, our results suggest that coaches should focus on the players playing few matches, since they reported a higher level of stress on three dimensions, potentially impairing their development as football players.

Keywords: Talent development, Stress, Playing time, Training

¹Department of Sociology and Political Science, Norwegian University of Science and Technology
Introduction

Even if junior football player (aged 15-20 yrs) in a professional club are close to a potential professional career, few of them actually end up as top-level players. Being a part of a professional club environment is associated with many advantages, i.e., high-level coaches, skilled teammates, and training facilities (Ashworth & Heyndels, 2007). These advantages would often result in increased motivation to continue training for a potential professional career (Fraser-Thomas, Côte, & Deakin, 2008). Players representing professional clubs has often been identified as talented at an early age and a common characteristic of these players are there early birth month. This birth month effect affecting the identification process has been labeled the relative age effect (Barnsley et al 1985), and has been strongly documented in both youth level (Sæther 2015) and professional football (Helsen, Baker, Michiels, Schorer, Van Winckel, & Williams 2012). Even so, to be able to develop further these players are also dependent of playing time at the highest level, and according to their skill level. Being part of a junior football team in a professional club would of course indicate that these players are part of a highly competitive environment, with potential stressors both connected to their football carrier, but also their everyday life in general. As a result, junior players will encounter a range of personal and interpersonal challenges that might affect their development (Richardson, Gilbourne, & Littlewood, 2004). High expecting coaches, and expectations of high level performance is usual for this group of players, and the players are expected to cope with this pressure. Even if players are expected to tackle this pressure, a high level of pressure may be two-sided since this on the one hand could be a learning process regarding mental toughness and coping strategies related to pressure and stress, but it can also be damaging and impair the development process, such as loosing confidence and choking under pressure.

According to Reeves, Nicholls, and McKenna (2009), adolescent athletes in team sports are under-represented within the stress and coping literature, and research in this area is highly recommended. This article will therefore examine how junior players playing time are related to four common stressors (e.g., Evaluation, Performance, Development, and Future) among high performing youth players.

Playing time

Even if recruitment to a high-level club could be sees a advantage in a player development perspective, this will also represent some challenges. The higher the level at which a club performs, the higher the expectations from both fans and coaches to succeed. This, in turn, can reduce the playing time of young,
inexperienced players. In addition, the players are challenged with the pressure of performing and repeatedly reproducing their skills. A large number of talent development models have focused on how a player’s development depend on environment factors (Bloom, 1985; Cote & Fraser-Thomas, 2008; Gagne, 2000), especially a qualified coach in the start of youth soccer, called the investment years (Ashworth & Heyndels, 2007, Cote et al., 2008). An earlier study has shown that U20 players are given little playing time at the highest senior level (Sæther & Solberg 2015). Most junior players are naturally not playing at the highest level, but if they are expected to reach top level they must eventually be given playing time at this level. An essential question for talented players is therefor which skills the players are dependent of developing to be able to be assessed as good enough by the high-level coaches.

Skill assessment is a common among young players since this is something their coaches are doing on a regular basis (Elferink-Gemser, Visscher, Richart, & Lemmink, 2004). However, the players’ ability to self-assess their own skills, in addition to engage in critical reflection on their training, could be regarded as important parts of the development process (Andersen, Hansen, & Hærem, 2015; Kannekens, Elferink-Gemser, Post, & Visscher, 2009) in terms of addressing their potential lack of skills. But, perhaps as a consequence of the fact that the players are used to being assessed, an earlier study found a connection between youth level players self-assessed skills and their level of playing time during a season (Sæther, Aspvik & Høigaard 2016). Since playing time probably is the most related factor indicating the coaches assessment of the players skills, this fact got the authors to conclude that playing time often would give a appropriate picture of the players assessment of their own skills.

Stress

A common definition of stress is the imbalance between the situation and a player’s resources (Lazarus & Folkman, 1984). Stress is experienced at different intensities and durations during adolescence and has different effects on each individual (Grant et al., 2003), and it seems to increase during the players’ adolescence. The transition from high-level junior football to professional football, could potentially be describes as the ultimate example of such a stressor (Finn & McKenna, 2010), since the fear of failure regarding performance and development (Sager, Busch, & Jowett, 2010) is essential and highly probably. The environmental aspect is also essential in the understanding of stress, and is a reason as to why the term “stress” has been widely discussed. Stress should be seen to represent an overall process incorporating stressors, appraisals, strains, and coping responses, according to Fletcher, Hanton, and Mellalieu (2006). While Fletcher et al. (2006), claimed that a stressor is the environmental
demand or stimulus encountered by an individual, while strain is defined as an individual’s negative response to stressors (e.g., burnout, dropout).

Independent of definition, the players must learn to cope with stressors if they are to pursue a career in professional sports (Holt & Dunn, 2004), as failure to cope can lead to decreased performance (Lazarus, 2000). The stress-recovery balance is also related to injuries and illnesses in youth elite football players (Brink et al., 2010). It is reasonable to believe that the players could experience the perception of stress differently based on the skill level of the player (Reeves et al., 2009). One could expect the players with are given the most playing time to be least stressful regarding performance, since they are trusted to start most games. The “benched” are on contrary, the players who are experiencing a lack of mastery have a high degree of stress because they may not be selected for the playing squad or they may be afraid of losing their place in the team. This could potentially contribute to reduced well-being (Ivarsson et al., 2015) hope (Gustafsson, Skoog, Podlog, Lundqvist, & Wagnsson, 2013), and player burnout (Gustafsson & Skoog, 2012; Raedeke & Smith, 2004).

Method

Participants

Forty-three male Norwegian junior football players (mean age = 17.4 yrs, \(SD\) 1.0 yrs) representing three professional football clubs, two top-level club (64,5%) and one league two club (35,5%), respectively, were included in the present study.

Procedure

The data were collected after a training session in the respective clubs in the start of their season. Before answering the questionnaire, all of the participants were informed about the purpose of the study, that their participation was voluntary, that the survey was anonymous, and that all information would be treated confidentially. All players were given an information letter for their parents. The study (ethics clearance) was in accordance and approved by the Norwegian Social Science Data Services.

Instruments

Stress. Based on the Adolescent Stress Questionnaire (Byrne, Davenport, & Mazanov, 2007; Moksnes, Byrne, Mazanov, & Espnes, 2010), we developed a 16-item soccer players’ stressor questionnaire for the purposes of this study. The
introduction to these questions was: “Here are some statements about things or situations that you may experience as stressful. Please tell us how stressful each of these things or situations have been for you over the past year.” The items were rated on a 5-point scale: 1 (Not stressful or irrelevant), 2 (A little stressful), 3 (Moderately stressful), 4 (Quite stressful), and 5 (Very stressful).

The 16 items were subjected to a principal component analysis (PCA) using SPSS version 21.0. Prior to performing the PCA, the suitability of the data for factor analysis was assessed. An inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Keiser-Meyer-Olkin value was .75, exceeding the recommended value of .6, and the Bartlett’s test of Sphericity reached statistical significance ($p<.05$), supporting the factorability of the correlation matrix (Tabachnick & Fidell, 2001).

The different factor combinations were labelled as “Evaluation stress,” indicating stress concerning evaluations of performance by your coach or teammates (i.e., being evaluated by your coach), “Performance stress,” concerning stress regarding performance in training and matches (i.e., training performance), ”Development stress,” indicating stress concerning expectations for development both from oneself and the coach (i.e., high expectations of coaches), and “Future stress,” concerning stress regarding school attendance and lack of time for other activities (i.e., keeping up in school). The response to each item was based on a 5-point scale ranging from 1 (Not stressful or irrelevant to me) to 5 (Very stressful). The Cronbach’s alpha for each subscale was .59 for Evaluation stress, .79 for Performance stress, .50 for Development stress, and .49 for Future stress. For further analysis, the three items in each subscale were collapsed into indexes. The tree clubs was also separated to see if there were any differences on the four stress dimensions, the results concluded no significant differences between these three clubs.

**Analysis**

All analyses were conducted in SPSS version 21.0. Means and standard deviations were calculated for player characteristics, and the four stress components. Multivariate analyses of variance (MANOVAs) were used to identify the players’ playing time differences for player characteristics and player stress. Furthermore, a Bonferroni’s *post hoc* procedure was applied to assess the mean values between the playing time of the players. The significance level (alpha) was set to .05.
Results

Our results showed no differences between the players given playing time and age, and amount of self-organised training. The players who played few matches started playing football somewhat later than the players who played all matches, close to significant (< 0.071).

Table 1: Anova analysis, playing time (N43)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Scale</th>
<th>All matches Mean (SD)</th>
<th>Most matches Mean (SD)</th>
<th>Few matches Mean (SD)</th>
<th>All Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>24</td>
<td>65</td>
<td>11</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>** Player Characteristics **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>15-21</td>
<td>17,3</td>
<td>17,5</td>
<td>17,4</td>
<td>17,4</td>
</tr>
<tr>
<td>Age startet playing football</td>
<td>5-10</td>
<td>5,1</td>
<td>5,7</td>
<td><strong>6,6n</strong></td>
<td>5,7</td>
</tr>
<tr>
<td><strong>Self-organised training</strong></td>
<td>1-5 a</td>
<td>3,5</td>
<td>3,2</td>
<td>2,7</td>
<td>3,2</td>
</tr>
<tr>
<td>(day/week)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stress</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation stress</td>
<td>1-5 b</td>
<td>1,8</td>
<td>1,6</td>
<td><strong>2,4</strong></td>
<td>1,7</td>
</tr>
<tr>
<td>Performance stress</td>
<td>1-5</td>
<td>1,9</td>
<td>2,1</td>
<td><strong>3,2</strong></td>
<td>2,2</td>
</tr>
<tr>
<td>Development stress</td>
<td>1-5</td>
<td>2,2</td>
<td>2,0</td>
<td>2,4</td>
<td>2,1</td>
</tr>
<tr>
<td>Future stress</td>
<td>1-5</td>
<td>2,0</td>
<td>2,3</td>
<td><strong>2,8n</strong></td>
<td>2,3</td>
</tr>
</tbody>
</table>

*P < 0.05 – reference «all matches»

**P < 0.05 – reference «most matches»

a 1 = Never, 5 = 6-7 days a week

b 1 = Not stressful or irrelevant to me, 5 = Very stressful

The players reported, on average, below mean on all of the four stress components. Stress regarding evaluation was associated with playing time, as the players who played few matches reported significantly more stress, compared to the players who played most matches. Performance stress was reported higher among the players playing few matches, compared to both the players playing most and all matches. Development stress showed no significant differences in terms of playing time. However, future stress was reported, close to significant (< 0.075), higher among the players who played few matches, compared to the players playing all matches.
Discussion

Playing time is an important part of young players development process, and is vital to be able to develop the skills necessary to become a professional football player. Players who are given less playing time reported a higher level of stress compared to both the players playing most matches and all matches. The players playing few matches reported a higher level of stress compared to the players playing all matches related to performance and future stress, while they also reported higher level of stress compared to the players playing most matches on evaluation and performance stress. Despite being part of a highly competitive context with many challenges (Finn & McKenna, 2010; Gustafsson & Skoog, 2012), overall, the junior players report low levels of stress regarding the four components measured in this study. An obvious reason for these results are the players’ expectations of high level of stress in the last phase from junior to professional football. According to Grant et al. (2003), stressors are experienced at different intensities and durations during adolescence. An earlier study of football academy players (mean age 14,0) found only significant differences in performance stress comparing to these players self assessed skills (Sæther, Aspvik & Høigaard 2016).

Even if this study showed similar average means for all stress dimensions, the players playing few matches in the present study reported higher level of stress compared to all dimensions except the development stress. This could indicate that since the likelihood for becoming a professional player would mean a tougher competition, the level of stress would increase and especially among the players given little playing time. Even so, finding that the players who are playing few matches reported a higher level of stress compared to both the players playing most and all matches, should be emphasized among the coaches of these age groups. Depending on the coaches understanding on when it is to late to become an professional football player, these players should be given the opportunity to develop within their team, to maximize their potential. Furthermore, the players’ ability to develop coping strategies (Reeves et al., 2009) could also be important, especially because the research indicates the difficulty of identifying potentially top-level players at an early age (Deprez, Fransen, Lenoir, Philippearts, & Vaeyens, 2015; Sæther, 2015).

Limitations of the study and future research

The authors acknowledge that the present study has some limitations. This is a study of 43 Norwegian youth academy players with ages ranging from 15 to 20. One should be aware of this before generalising the present study’s results. While the KMO supported factorability of the correlation matrix, the
Cronbach’s alpha values were low in three of the four dimensions (“evaluation”, “development” and “future”), ranging from .49 - .59. Based on internal validity of the questions, we chose to create the three dimensions. The authors also acknowledge that while this is a cross-sectional study, we suggest more studies with a longitudinal assessment.

Conclusion

This study found that the players given the least playing time reported more stress related to all the three stress dimensions; evaluation, performance and future. Even though being a part of a professional club environment is associated with many advantages (Ashworth & Heyndels, 2007), the same environment also have high expectations from the players (Richardson, Gilbourne, & Littlewood, 2004). Based on our results the players playing few matches are experiencing these challenges. Even so, overall, the junior players reported a low level of stress on all four components. Based on this fact, our results suggest that coaches should focus on the players playing few matches, since they reported a higher level of stress on three dimensions.

References


Stig Arve SÆTHER is an Assistant Professor in sport science at the department of sociology and political science, at the Norwegian University of Science and Technology, NTNU. His main research interests is: youth sports, and talent development in football.

**Corresponding author:**
Stig Arve Sæther  
Department of Sociology and Political Science,  
Norwegian University of Science and Technology  
Dragvoll, 7491 Trondheim, Norway  
E-mail: stigarve@ntnu.no

Nils Petter ASPVIK is a PhD student in sport science at the department of sociology and political science, the Norwegian University of Science and Technology, NTNU. With physical activity being the main research topic. Aspviks’ research interests include; children- and youth sport and the coach-athlete relationship.