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Development and initial validation of the Role Strain Questionnaire for Junior Athletes (RSQ-JA)

Fleur E.C.A. van Rens [a, *], Erika Borkoles [b], Damian Farrow [a, c], Thomas Curran [d], Remco C.J. Polman [e]

[a] Institute of Sport, Exercise and Active Living, Victoria University, Melbourne, Australia
[b] Department of Sport and Physical Activity, Bournemouth University, UK
[c] Australian Institute of Sport, Movement Science, Belconnen, Canberra, Australia
[d] Department for Health, University of Bath, UK
[e] Department of Psychology, Bournemouth University, UK

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ABSTRACT

In a series of related studies, the relevance of a role strain framework to interpret the difficulties junior elite athletes experience in their multiple life domains was assessed. Here, the Role Strain Questionnaire for Junior Athletes (RSQ-JA) was developed to measure the role strain experienced by junior athletes. In Study 1, role strain was explored via interviews with 20 elite junior athletes. Based on themes emerging from these interviews, an initial 65-item pool for the RSQ-JA was created and subjected to an exploratory factor analysis in Study 2. The factors derived in Study 2 were tested for factorial validity using confirmatory factor analysis in Study 3. Results supported a 22-item five factor structure for the RSQ-JA. These factors reflected the salient sources of role strain, namely; (i) overload in school, (ii) overload in sport and between roles, (iii) between-role conflict, (iv) underload, and (v) ambiguity. The RSQ-JA therefore provides the initial validation of the first measure of role strain experienced by junior elite athletes.

Elite junior athletes fulfil dual careers (Wylleman & Lavallee, 2004). They are athletes and students, and are therefore required to fulfil both training and school commitments (Brettschneider, 1999; Debois, Ledon, & Wylleman, 2015). Given only one in three junior elite athletes progress to a senior elite level (Oldenziel, Gagné, & Gulbin, 2003), accomplishing good secondary education is critical for those who did not make it to a professional level in their sport. Yet, school is typically perceived to conflict with sport in terms of time commitment (Henriksen, Stambulova, & Roessler, 2010a, 2010b) making balancing school and sport difficult (Blom & Duijvestijn, 2008; Debois et al., 2015). Accordingly, better understanding the interplay between school and sport within the lives of junior elite athletes is an important topic of research.

A number of studies have investigated the sport specific stressors that athletes experience (Hanton, Fletcher, & Coughlan, 2005; Nicholls & Polman, 2007; Tamminen & Holt, 2010). This work extends to the dual careers of athletes, and how the concurrent demands from school and sport affect other life domains such family and friendships (Christensen & Sørensen, 2009; Debois et al., 2015). Notably, Christensen and Sørensen (2009) research indicates that the pressures junior athletes experience in their lives, and a lack of time for friends and leisure, are associated with dropping out of school and choosing courses of lower cognitive burden. Debois et al. (2015) similarly emphasized dissatisfaction amongst athletes who were forced to make educational decisions based on the toll the subjects would take on their time, instead of their vocational preferences. Increasingly, professional sport organisations are beginning to recognise that a well balanced dual career will increase sport performance of elite junior athletes (Pink, Saunders, & Stynes, 2015). Hence, the present study seeks to untangle the interplay between school and sport by developing and validating a measure of athlete role strain.

1. Role strain

Role strain emerged from research in the workplace where it was defined as “the felt difficulty in fulfilling role obligations”

* Corresponding author. Institute of Sport, Exercise and Active Living, Victoria University, Melbourne, 8001, Australia.
E-mail address: florentina.vanrens@live.vu.edu.au (F.E.C.A. van Rens).

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(Goode, 1960, p. 483). This work extends to both within-role obligations, as well as tension between role obligations. Elite junior athletes experience role strain due to the sport role (e.g., training demands, performance expectations; Brenner, 2007), but also as a result of competing, personally meaningful, roles (e.g., friends, school, family; Christensen & Sørensen, 2009; Wylleman & Lavallee, 2004). Adopting this perspective, a model of role strain for adolescents was developed which encapsulates four central components (Fenzel, 1989a; Holt, 1982).

The first component of role strain is ambiguity and is described as a lack of understanding or clarity about one's responsibilities in one or multiple roles (Holt, 1982; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). For example, a junior athlete might be unsure about the training requirements associated with his/her sport and this uncertainty might breed associated stresses. Ambiguity has been widely examined in relation to fulfilment of the athlete role. In particular, studies employing the Role Ambiguity Scale (Eys, Carron, Beauchamp, & Bray, 2003) indicate that experiences of ambiguity are associated with increased cognitive and state anxiety (Beauchamp, Bray, Eys, & Carron, 2003), lower athlete satisfaction (Eys, Carron, Bray, & Beauchamp, 2003), and less confidence in coach competence (Bosselut, McLaren, Eys, & Heuzé, 2012).

The second component of role strain model is conflict. Conflict consists of two components. First, it refers to a discrepancy between the expected behaviours or performance by others (e.g., coaches, parents) within a particular role (Fenzel, 1989a). For instance, a sport coach might prefer a junior athlete to prioritize sport over school, whilst a teacher might prefer this athlete to prioritize school over sport. Second, conflict reflects the athletes' personal schema of what constitutes acceptable behaviour or performance (Fenzel, 1989a). Here, a junior athlete might be expected to show aggression in his/her game, but dislike doing so. This internal discrepancy has a number of costs for athletes' performance and well-being. For instance, role conflict has been associated with lower self-efficacy, and higher burnout in university and elite athletes (Beauchamp & Bray, 2001; Kjormo & Halvari, 2002).

The third component of role strain model is overload. It refers to the perception that the demands placed on athletes within and between roles exceed the personal resources to meet them (Fenzel, 1989a). Overload can thus occur due to a depletion of physical and mental vigour, self-efficacy, social-support and time. An example of overload might be a perceived lack of time to fulfil both school and sport demands. Many researchers have identified overload, or a lack of recovery time, as a critical risk factor of stress and burnout amongst athletes (Brenner, 2007). This is similarly the case in school, with deficits in self-efficacy being important to students' development of burnout (Moen, 2013).

The final component of role strain model is underload. It refers to a perceived underutilization of one's resources (Holt, 1982). Underload therefore manifests when an imbalance is perceived between high personal capabilities and a lack of challenge posed by the environment. A junior athlete in a rural area, for instance, might only have access to lower level sport clubs and thus not be challenged to further develop his/her sporting abilities. When perceived abilities outweigh perceived challenge in achievement domains, apathy and boredom are expected to result (Fredricks, Alfeld, & Eccles, 2010). In sport, boredom related to a lack of challenge has been identified as a significant antecedent to dropout amongst promising athletes (Enoksen, 2011).

While the role strain framework is clearly applicable to sport, it has not been applied in this context. To date, instruments have tapped into separate elements of role strain to examine individual stressors, but no measure is available to capture the full array of role strain dimensions. In domains other than sport, tools to directly measure role strain have been developed (e.g., Early Adolescent Role Strain Inventory; Fenzel, 1989a). Research using this tool has demonstrated that higher role strain is associated with poorer school performance, lower global self-worth, lower self-esteem and lower perceived competence (De Bruyn, 2005; Fenzel, 1989a, 1989b, 1992, 2000). The available evidence therefore indicates that role strain is important for performance and health outcomes, and it has potentially important implications for elite junior athletes.

2. The present set of studies

The role strain model provides a useful heuristic for the stressors that encapsulate role stain. Therefore, we propose that this framework has utility to explain important variability in athletes' lived experiences in the way they balance the competing demands of their relevant life domains (e.g., school, sport family and friendships). To test this hypothesis, in Study 1, we investigated the experiences of athlete role strain in a series of semi-structured interviews. Based on these experiences, in Studies 2 and 3, we developed and validated a measure of role strain in junior athletes. Overall, these studies sought to advance the understanding of role strain in junior-elite sport, as well as to provide a springboard for subsequent research into its antecedents and consequences.

3. Study 1

The purpose of Study 1 was to explore the role strain that junior elite athletes experience in their relevant life domains and to inform the item generation for Study 2.

3.1. Method

3.1.1. Participants

Twenty Australian elite junior athletes who attended secondary school at the time of the study, were interviewed (aged 13–17 years; M_{age} = 15.5 years; SD = .9). Athletes from one team sport (Australian Rules Football, ARF) and two individual sports (Tennis and Gymnastics) were approached. Within each sport, participants were sampled based on their current sport performance level. The gymnasts (N = 5) and tennis players (N = 4) were identified by their respective sport federations as belonging to the 'National Top' in their age category. The ARF players were either identified by the Australian Football League as belonging to the 'National Top' (ARF-AFL, N = 5) or scouted by a Sports Academy as talented players (ARF-SA, N = 6). ARF is mainly played competitively by males, therefore our sample predominantly consisted of male adolescents (17 men, 3 women). The mean time spent in school, sport and travel varied across participant groups. On average gymnasts spent the most time in school, sport and travel (66 h per week; see Table 1). Our sample included participants attending both public and private schools.

Ethical approval was granted from the relevant institutional research ethics committee and the Department of Education and Early Childhood Development in Victoria. Written consent was received from parents/guardians, and the participants prior to commencement of the study.

3.1.2. Interview procedure

Participants were asked to record their age, sport performance level and time commitments on a sheet to be returned to the researcher prior to their interview. Each junior elite athlete was interviewed individually and agreed verbally to audio recording of their interview (Olympus WS-812 digital audio recorder). The interview times ranged from 22 to 46 min (M_{time} = 35 min; SD = 8).

To ensure that the participants felt at ease, a site familiar to the