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Motivational profiles and burnout in elite athletes: A person-centered approach

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ABSTRACT

The aim of this study was to assess the link between elite athletes' motivational profiles and burnout using a person-centered approach. Participants were 391 Spanish elite athletes (201 males and 190 females), aged 16–30 years who completed questionnaires measuring demographic information, self-determined motivation, and athlete burnout. Latent profile analysis resulted in a five profile solution labeled: amotivation (Class 1), low motivation (Class 2), moderately autonomous motivation (Class 3), amotivated and moderately controlled motivation (Class 4), and highly motivated (Class 5). While no significant differences were found in emotional/physical exhaustion, Class 4 (amotivated and moderately controlled motivation) scored higher than classes 2 (low motivation), 3 (moderately autonomous motivation), and 5 (highly motivated) on a Reduced sense of Accomplishment and Sport Devaluation. Findings are discussed in relation to Self-Determination Theory, suggesting that the quality of one's motivation may be equally, if not more important than the quantity of motivation in determining subsequent health, well-being, and performance outcomes.

Athlete burnout has garnered increasing interest over the past 20 years. Given the pressures and demands associated with competitive sport, it is not surprising that interest in burnout has been on the rise (cf. Eklund & DeFreese, 2015; Gustafsson, DeFreese, & Madigan, 2017). Athlete burnout has been commonly defined as a syndrome or a construct comprised of three dimensions: (1) emotional and physical exhaustion, (2) a reduced sense of accomplishment, and (3) sport devaluation (Raedeke & Smith, 2009). The first symptom is characterized by the perceived depletion of emotional and physical resources beyond that associated with routine practice and competition. The second symptom is characterized by an enduring sense of reduced personal accomplishment in terms of sport abilities and achievement. The final symptom reflects the development of a cynical attitude towards sport participation. Although the conceptualization of burnout have been under discussion (cf. Gustafsson, Lundkvist, Podlog, & Lundqvist, 2016), there is consensus among researchers that exhaustion lies at the core of this condition (Gustafsson, Kenttä, & Hassmén, 2011; Maslach, Schaufeli, & Leiter, 2001).

Considering the maladaptive nature of burnout, researchers have examined the factors implicated in its development. Sport psychologists have asserted that athletes are vulnerable to developing burnout to the extent that they experience chronic levels of psychosocial stress (Raedeke, 1997; Smith, 1986) and/or shifts in the quality and level of their sport motivation (Cresswell & Eklund, 2005; Lemyre, Treasure, Roberts, 2006). For instance, interviews with ten burned out athletes revealed that during their career, high initial motivation was a contributor to burnout (Gustafsson, Hassmén, Kenttä, & Johansson, 2008). In addition, longitudinal research indicates that burnout is a likely consequence of maladaptive motivational dispositions (Lemyre, Hall, & Roberts, 2008). Thus, the role of motivation in the burnout syndrome has been of great interest to both researchers and practicing sport psychologists.

The prominent motivational signature of athlete burnout has lead researchers to use self-determination theory (SDT: Li, Wang, & Kee, 2013; Ryan & Deci, 2002) to help explain and predict burnout. Within SDT, five behavioral regulations are proposed to exist along a continuum, ranging from high self-determination (i.e., intrinsic motivation, IM) to low self-determination (i.e., external regulation). IM, occurs when an athlete participates because of interest or enjoyment in the activity itself. A second regulation, integrated regulation is evidenced

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when an athlete views sport as being congruent with deeply held values (i.e., being an athlete) and his or her sense of self. Third, identified regulation underlies participation to realize benefits one deems personally important (e.g., winning). Fourth, introjected regulation refers to behavior that are performed to avoid feelings such as guilt or shame or to enhance feelings of self-worth. Fifth, external regulation occurs when an athlete participates to satisfy an external demand or to avoid punishment. Finally, it is important to note that individuals may demonstrate antipathy towards an activity, what Ryan and Deci term amotivation. Amotivation occurs when athletes lack motivation and feel as though they are "going through the motions."

While external, introjected, identified, and integrated regulation are all considered forms of extrinsic motivation (EM) (i.e., they all represent outcomes separate from the inherent experiential aspects of the activity), some forms of EM are considered more self-determined than others. Specifically, external and introjected regulation have been described as non-self-determined or controlled regulatory styles, whereas identified and integrated regulation are considered self-determined or autonomous regulatory styles (Ryan & Deci, 2000). Intrinsic motivation is seen as the epitome of self-determined motivation, since the only reward associated with participation is engagement in the activity itself.

Researchers investigating motivational regulations and burnout have mostly supported the theoretical assumptions of SDT (e.g. Cresswell & Eklund, 2005; Curran, Appleton, Hill, & Hall, 2011; Raedeke & Smith, 2001). From a SDT perspective, burnout is associated with thwarted psychological needs (i.e., competence, autonomy and relatedness; Deci & Ryan, 2008) and when these needs are chronically unfulfilled this leads to impaired health, non self-determined motivation and amotivation as a consequence. Consistent with SDT assumptions, numerous studies have found that intrinsic motivation is negatively related to athlete burnout, while amotivation has been shown to be positively related to burnout symptoms (Eklund & Cresswell, 2007). In contrast, relationships between athlete burnout and extrinsic motivation have been more equivocal. Specifically, investigators have shown non-significant or modest negative relationships between burnout symptoms and external, introjected, and identified regulation (cf., Eklund & Cresswell, 2007; Li et al., 2013). More research is needed to investigate the partially inconsistent findings.

Most of the previous burnout research has adopted a variable-oriented approach, in which specific behavioral regulations or a self-determination index (i.e. a composite of regulations) are used to examine relations with athlete burnout (e.g., Cresswell & Eklund, 2005; Lemyre, Roberts, & Stray-Gundersen, 2007). Using a person-centered approach, offers complementary insights into the concomitant motivations within individuals that may influence burnout susceptibility (Gillet, Vallerand, & Rosnet, 2009; Gustafsson, Hill, Stenling, & Wagnsson, 2016). Such an approach places emphasis on the individual rather than variables.

Using a person-centered approach seems well-suited to an examination of motivation as a multidimensional construct – as is the case with motivation on the SDT continuum. A person-centered analysis models the theoretical possibility that individuals endorse combinations of motivation regulations, rather than specific regulations (Bergman & Andersson, 2010; Gustafsson, Hill, et al., 2016). Further adopting a person-oriented approach provides the opportunity to investigate the *number* of athletes characterized by distinct motivational profiles in a manner that cannot be done using a variable-centered approach. Finally, a person-oriented approach gives the opportunity to determine actual motivational profiles that exist in an elite sport context, rather than examine theoretically proposed possibilities based on SDT assumptions (e.g., high autonomy/low control combinations) (Gillet et al., 2009). Thus using a person-centered approach can provide an alternative picture to a variable/correlational approach when investigating burnout and motivation (Gustafsson, Sagar, & Stenling, 2016).

Despite its advantages, limited research using a person-centered approach has been conducted in the area of athlete burnout and motivation (e.g., Lemyre et al., 2008) and only one study has used a SDT as their theoretical framework (Gillet, Berjot, Vallerand, Amoura, & Rosnet, 2012). In their investigation of ultra-distance marathon runners, Gillet et al. (2012) found three motivational profiles including: low (low autonomous motivation, high amotivation), moderate (moderate autonomous motivation, moderately controlled motivation, and low amotivation) and high motivation (high controlled and high autonomous motivation). Interestingly, a high motivation profile was associated with both higher performance and increased levels of emotional and physical exhaustion. The latter finding suggests that high motivation might be a double-edged sword in so far as greater performance levels may come at a price, namely increased burnout susceptibility. These findings demonstrate the potential of a person-oriented approach in providing more nuanced insights into the relationship between motivation and burnout. However, despite the benefits of using a person-centered approach, the studies above used cluster analysis which have methodological limitations (c.f., Gustafsson, Hill, et al., 2016).

In the present study, we employed latent profile analysis (LPA; e.g., Marsh, Lüdtke, Trautwein, & Morin, 2009; McLachlan & Peel, 2000; Morin & Marsh, 2015; Muthén, 2001; Pastor, Barron, Miller, & Davis, 2007) to uncover underlying subgroups of athletes with different motivational profiles. As with more traditional cluster analysis techniques, LPA is used to divide persons into homogenous subgroups. There are, however, some noticeable advantages of LPA compared to cluster analysis techniques (Marsh et al., 2009; Vermunt, 2011; but see also; Steinley & Brusco, 2011). The main difference between LPA, hierarchical and most non-hierarchical cluster analysis techniques is that LPA is a model-based approach, whereas cluster analysis is an exploratory technique (Marsh et al., 2009; Pastor et al., 2007). A model-based approach allows for less arbitrary decisions regarding how many classes to retain because several fit indexes can be used to compare models and aid the decision regarding the number of underlying classes (Marsh et al., 2009; Vermunt & Magidson, 2002). With cluster analysis, researchers most often examine different solutions, and use theory and subjective judgment to decide on the number of clusters to retain because rigorous guidelines (e.g., statistical tests) are lacking in making such decisions (Pastor et al., 2007). LPA allows for more flexible model specification that can include different distributional forms, variables of different scale types, and ease of including various predictors and/or outcomes in the analysis (e.g., Asparouhov & Muthén, 2014; Morin & Wang, 2016; Vermunt & Magidson, 2002). LPA is also a probabilistic approach, meaning that although each person is assumed to belong to one class, the analysis takes into account that there is uncertainty in the classification (Vermunt & Magidson, 2002). For the abovementioned reasons, LPA seems to be gaining popularity in sport and exercise psychology research as it provides a less subjective and more robust approach for person-centered analyses (Morin & Wang, 2016).

It is worth noting that recent inquiry outside the sport context (e.g., work settings; Howard, Gagné, Morin, & Van den Broeck, 2016) has examined SDT motivational profiles and burnout using LPA. For instance, Howard et al. (2016) found four different profiles showing varying amounts of self-determined motivation as well as qualitative differences between the motivational profiles (i.e., profiles exhibiting different shapes). The profiles included: an amotivated group, a "moderately" motivated group (mid-range levels on all motivational regulations), a moderately autonomous group, and finally, a group high on all regulations except for amotivation. In this study, burnout was highest in the moderately motivated group followed by the amotivated group. These findings are different from Gillet et al. (2012) who found a different set of profiles and the highest burnout scores were found in a "high" motivation group with high levels of all motivational regulations except for amotivation. This is especially interesting as amotivation are generally associated with burnout in earlier studied using a variable approach (c.f., Li et al., 2013). The different findings might be due to