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**INVESTIGATING THE RELATIONSHIPS OF THE SPORT COMMITMENT MODEL
AMONG ADOLESCENT ATHLETES**

Theses of Ph.D. Dissertation

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INTRODUCTION

Physical activity has always been the main contributor to maintaining the individual's health; therefore, the reasons for sport participation could be the key to improve people's lifestyle. Several sport motivational theories have been established earlier and they try to answer why athletes are participating in physical activity. According to the literature answering these questions, it is not easy since several factors could play a role in sport motivation. According to the research, the motivational role of the society is very wide, since there are persons who only want to take a 30-minute jog for their health and some of them want to run the best time of their lives (Adam, Susánszky & Székely, 2018). These motivational factors may also depend on age, social status, and the environment (Butt, Weinberg, Breckon, & Claytor, 2011). Besides these, friends and family also have a huge role in developing a healthy athletic attitude (Atkin, Johnson, Force, & Petrie, 2015).

I believe improving health believes can happen through adolescent education. The adolescent age group deserves special attention since many studies have shown that the adolescent's sensitive period is the best to develop healthy behaviors and sports attitudes, because of their long-term effect (e.g., Trejos-Castillo and Vazsonyi, 2011). Therefore, my main target group is adolescents, since I believe investigations among their sport motivation and health behavior might help them to improve their health attitudes, which can lead to healthy and balanced adulthood.

The main goal of my dissertation is to investigate the role of sport commitment in adolescent sport participation. Furthermore, I investigate health behavior and their relation to sport commitment. I believe that a deeper understanding of the desire for sport can help researchers, psychologists, and sports professionals to improve adolescent health behaviors which in the long term can contribute to a healthy welfare society.

THEORETICAL BACKGROUND

Understanding motivational reasons behind sport participation have been a goal of many studies in the past decades. Among these studies, some only investigate the role of motivation in simple questions, but others create complex theories, which are aiming to provide a comprehensive picture of the reasons for sport participation.

In my dissertation, I approach motivation from a commitment perspective but other motivational theories are also included in my studies. Hence, I use the widely known self-determination theory (Deci & Ryan, 1985), the athletic identity theory (Brewer Raalte, & Linder, 1993) and the sport enjoyment model (Wiersma, 2001).

In the following sections, I would like to review these motivational theories, especially the Sport Commitment Model (Scanlan, Graig, Sousa, Scanlan and Knifsend, 2016), Athletic Identity Theory and Sport Enjoyment Model which are the main part of my research.

The Sport Commitment model

One of the prominent researchers in this field is Tara Scanlan who introduced the Sport Commitment Model in 1993 (Scanlan, Carpenter, Simons, Schmidt, & Keeler, 1993). The original Sport Commitment Model consists of five sources. However, after many years of research, the model was extended and now it can be determined by two types of commitment and seven possible sources (see figure 1; Scanlan et al., 2016).

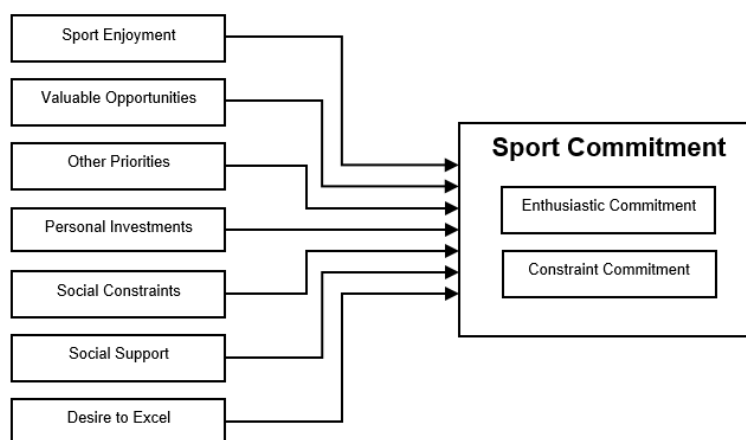


Figure 1. The Sport Commitment Model (source: Scanlan et al., 2016)

According to Scanlan's work, *Enthusiastic Commitment* is defined as "the psychological

construct representing the desire and resolve to continue sport participation" (Scanlan et al., 2016, p. 235). During the years, however, the researchers found that sport participation did not always stem from desire, but sometimes from duties as well (Scanlan, Russell, Magyar & Scanlan, 2009). Therefore, *Constrained Commitment* has also been added to the model that was defined as "*the psychological construct representing perceptions of obligation to persist in a sport over time*" (Scanlan et al., 2016 p. 235). The constrainedly committed athletes usually felt obligation and external pressure to continue their sport participation.

Determinants of commitment represent several possible sources of sport commitment. Previous studies showed that *Sport Enjoyment* and *Valuable Opportunities* is the most important sources for Enthusiastic Commitment (Scanlan et al., 2016). Sport Enjoyment was defined as "*The positive affective response to a sport experience that reflects generalized feelings of joy*" (Scanlan et. al., 2016, p. 235), whereas *Valuable Opportunities* was defined as "*Important opportunities that are only present through continued involvement in a sport*" (Scanlan et al., 2016, p. 235). These opportunities could be travel experience, the competition experience, or the sport competence as well. The variable has a big impact on the model. According to Zahariadis, Tsorbatzoudis and Crouios, (2002) these are the most important sources of *Enthusiastic Commitment*. However, other studies concluded that *Valuable Opportunities* are one of the sources of *Sport Enjoyment* (Scanlan et al., 2009).

Previous studies found that *Other Priorities* had a negative effect on Enthusiastic Commitment, but positive effect on Constrained Commitment (Scanlan et al., 2016). Other Priorities means "*alternatives that conflict with continued sport participation*" (Scanlan et al., 2016, p. 235). Previous studies found that alternatives (e.g. school, work) could reduce sport commitment (Sousa et al., 2007)

There are two approaches to investigating *Personal Investment*. The first approach is based on the number of personal resources that the athletes put into their sport. The second approach focuses on the notion of loss by asking athletes to rate how difficult it would be to quit their sport because of the invested personal resources (Scanlan et al., 2016). Early commitment researchers argued that *Personal Investment* had a positive relationship with commitment, but this relationship came from obligation, hence recent studies showed positive relationship with Constrained Commitment (Scanlan et al., 1993).

Social Constraints include social expectations that *create perceptions of obligation to*

remain in a sport" (Scanlan et al., 2016, p. 235). Social Constraints was proposed as a positive source of Enthusiastic Commitment (Scanlan et al., 1993), but other researchers found that neither of them had an effect or they had only weak negative effect (Scanlan et al., 2016).

Most recently, two sources were added to the model: Social Support and Desire to Excel (Scanlan et al., 2016). In the original study, Informal and Emotional Social Support were assessed (Scanlan et al., 2016). Social Support was hypothesized as a predictor of Enthusiastic Commitment, but the findings from both quantitative (Scanlan et al., 2009, 2016) and qualitative studies were inconsistent.

Qualitative studies also revealed the fact that Desire to Excel was a positive predictor among elite athletes (Scanlan et al., 2009, 2013). These determinants included two subcategories where the Mastery Achievement reflected performance for the individual to improve and Social Achievement related to winning and desire to outperform opponents (Scanlan et. al., 2016).

The Sport Enjoyment model

Scanlan's definition of sport enjoyment refers to "a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking, and fun" (Scanlan et al, 2016, p. 235). Other researchers contended that enjoyment was synonymous with intrinsic motivation (Deci & Ryan, 1985). Scanlan and colleagues (1989) also acknowledged the similarity; however, they reflected that enjoyment also had an extrinsic aspect which came from social and parental influences. Research concerning sport enjoyment has yielded consistent findings. Scanlan and colleagues analyzed elite ice dancers, and they concluded that the source of sport enjoyment was the activity that the individual pursued, which resulted in high levels of movement experience and that the athletes could show others' how good they were (Scanlan, Ravizza, & Stein, 1989). Furthermore, not only individual traits, but also social interactions can be an important source of sport enjoyment. In another earlier research among male wrestlers found that younger kids reported more sports enjoyment than older wrestlers, and that parental and coaching encouragement led to higher level of sport enjoyment during the season. From the previous considerations it seems that the performance and movement experiences were the most important sources of sport enjoyment and that could indirectly affect sport motivation (Scanlan et al, 1986; Wiersma, 2001).

Wiersma (2001) put sport enjoyment theory into a new perspective, which constituted the

theoretical background for research in sport enjoyment. He developed a two-dimensional model. The model distinguishes achievement/ non-achievement and intrinsic/extrinsic dimensions. Additionally, six sources of sport enjoyment are mapped onto this two-dimensional model presented in Figure 1. Based on an examination conducted in a sample of 896 participants, Wiersma validated a 28-item questionnaire. The results suggested that experiencing self-competence and competitive excitement were the two most relevant sources of sport enjoyment (Wiersma, 2001).



Figure 1: Sport Enjoyment Model (source: Wiersma, 2001)

Athletic Identity

Several international studies showed the importance of athletic identity among athletes. However, there are only a few studies investigating athlete's identity in Hungary. Brewer, Van Raalte and Linder (1993) introduced athletic identity and defined as the degree to which individuals identify themselves with the role of an athlete (Brewer et al., 1993). Based on the latest studies, athletic identity has an impact on personal development, positive health behavior and motivation. According to Martin, Fogarty and Albion (2013) the stronger athletic identity is improving the subjective well-being, even when the athletes stop their sport voluntarily. In another study of Lamont-Mills and Christensen (2006), it was concluded that higher identity comes with increased sport participation. There are other effects of the high athletic identity. It helps to athletes

to get more confident and less burnout (Burns, Jasinski, Dunn & Fletcher, 2012) The relationship between athletics identity and sport motivation could be important for a deeper look on the individuals' commitment, therefore it has been the aim of many studies.

THE AIM AND RELEVANCE OF THE RESEARCH, HYPOTHESES

Sport participation has many positive effects therefore, it is important to more people engage in any physical activity, therefore my aim of the research is to understand the relationship between motivation and health behavior, which may help to prevent dropout from sport in early ages.

The questions and hypotheses (H) of my empirical research are based on several topics, which are the following:

- I. Scale adaptation for the research for the Sport Commitment Model.
 - a. Is the Hungarian version of the Sport Commitment Questionnaire-2, Sport Enjoyment Scale and the Athletic Identity Scale has adequate reliability and validity?
- II. The role of sociodemographic and sport variable on the sport commitment model.
 - a. How sociodemographic and sport variable data (e.g., gender) influence sport commitment among adolescent athlete?
- III. Other Sport Motivation approaches and their Relationships to the Sport Commitment Model.
 - a. What is the connection between the Sport Commitment Model and the Self-Determination Theory?
 - b. What is the connection between the Sport Commitment Model and the Athletic Identity?
- IV. Relationship between the Sport Commitment Model and the psychological behavior.
 - a. What is the relationship between sources and types of commitment?
 - b. What is the relationship between Sport Commitment and psychological variables?

- V. The role of psychological behavior and the sport enjoyment
 - a. How to describe the Sport Enjoyment in the sample?
 - b. What is the relationship between Sport Enjoyment and psychological variable?

Hypotheses:

- I. Scale adaptation for the research of the Sport Commitment.
H₁: I hypothesized that Sport Commitment Questinnaire-2, Sport Enjoyment Scale and the Athletic Identity Scale has adequate reliability and validity.
- II. The role of sociodemographic and sport variable on the sport commitment model.
H₂: I hypothesized that the sociodemographic and sport variable has an effect on the sport commitment model.
- III. Other Sport Motivation approaches and their Relationships to the Sport Commitment Model.
H₃: I hypothesized that the Enthusiastic Commitment has positive relationship with higher level of self-determination and Constrained Commitment has positive relationship with lower level of self-determination.
H₄: I hypothesized that social variables, personal investments and alternatives has a positive relationship with lower level of self-determination and individual variables has positive relationship with higher level of self-determination.
H₅: I hypothesized that Social Support, Enthusiastic Commitment, Sport Enjoyment, Valuable Opportunities are associated with higher level of Athletic Identity.
H₆: I hypothesized Constrained Commitment is associated with lower level of Athletic Identity.
- IV. Relationship between the Sport Commitment Model and the psychological behavior.
H₇: I hypothesized that Sport Enjoyment, Valuable Opportunities, Desire to Excel – Mastery and Personal Investment –Quantity have positive relationship with Enthusiastic Commitment.

H₈: I hypothesized that Other Priorities, Personal Investment – Loss, Social Constraints have negative effects on Constrained Commitment.

H₉: I hypothesized that the Health attitude, future orientation, aspirations and subjective well-being has relationship with the sport commitment model.

H₁₀: I hypothesized that Organization and personal standards are associating with Enthusiastic Commitment and parental expectations, critics, Concern over Mistakes and Doubts about action are associating with Constrained Commitment.

V. The role of psychological behavior and the sport enjoyment.

H₁₁: I hypothesized that competency is the main source of Sport Enjoyment.

H₁₂: I hypothesized that subjective well-being, future orientation and intrinsic aspirations have positive relationship with intrinsic sport enjoyment and extrinsic aspirations have positive relationship with extrinsic sport enjoyment.

THE METHODS OF THE EMPIRICAL RESEARCH

Study 1

Sample (n=526)

Participants in the study were 526 adolescent athletes (275 males and 251 females) ages from 14 to 18 years ($M = 16.5$; $SD = 1.3$). They participated in their sports for an average of 8.25 years ($S.D. = 3.5$) and they were representing 38 different sports. Nearly half (49.2%) of the athletes were representatives of individual sports and 50.8% of them were representative of team sports. In terms of competition, 39.7% of our sample consisted of athletes who were competing at international level.

Measures:

- Sociodemographic
- Sport background
- Sport Commitment Questionnaire -2
- Sport enjoyment Scale

- Satisfaction with life Scale
- Aspiration Index
- Health Attitude scale
- Future orientation scale

Study 2

Sample of the study 2 (n=340)

Three-hundred fourteen Hungarian adolescent athletes (66 males and 148 females) were involved in this study (mean age = 16.84 years; SD = 1.38). They participated in their sports for an average of 7.78 years (SD = 3.91) and they spent an average of 7.55 hours (SD = 4.66) in training weekly. The athletes were representatives of 25 different sports (individual sports = 59.8%; team sports = 39.7%). In terms of competition, 77.7% of our sample consisted of athletes who were competing at international, national or local level. Only 22.3% of our sample reported that they are not competing in any level.

Measures:

- Sociodemographic
- Sport background
- Sport Commitment Questionnaire -2
- Sport Motivation Scale
- Athletic Identity Scale
- Frost Multidimensional Perfectionism Scale

RESULTS – MAIN FINDINGS

In my research, I tried to approach sport commitment in different directions. However, first I need to adapt measurement which has not had any Hungarian versions before. Hence, I translated and adapted three scales to Hungarian usage (Sport Commitment Questionnaire-2, Sport enjoyment scale, Athletic Identity scale). The three adapted scale was slightly different from the original one, but its accordance with my hypothesis has been proved to be usable for Hungarian adolescents (H₁).

After the adaptation processes, I analyzed the Sport Commitment Model by sociodemographic data and sport variables as well (H₂). From my result, I concluded that athletes with high Enthusiastic Commitment had a higher level of competition level, doing more training and usually they are representative of a team sport. As it turned out, football players are the most committed athletes in my study. I found similar results with the literature as well (e.g., Deci & Ryan, 2000). For example, when age was increasing, commitment to sport was decreasing and it also turned out that boys were more committed than girls.

The main focus of my study was to investigate sport commitment. Therefore, I felt important to compare it with other motivation theories. Investigating the relationship between the Sport Commitment Model and the well-known Self-Determination theory, I found that the two types of commitment could be distinguished on the Self-Determination Continuum since *Enthusiastic Commitment* has a stronger connection with *intrinsic motivation* and *Constrained Commitment* has a connection with *amotivation* and *extrinsic motivation*. These findings were consistent with my hypotheses (H₃). Investigating among the sources of commitment it was unclear since many of the commitment sources had appeared along the continuum, but it seems commitment sources with obligation was characterized by extrinsic motivation, while opportunities and enjoyment were characterized by intrinsic motivation. Based on this finding, I believe that the complexity of the variables makes it difficult to distinguish them on the Self-Determination continuum, so my hypotheses were only partially confirmed (H₄).

My results regarding Athletic Identity were only partially confirmed. My results indicated that intrinsic variables of commitment (e.g. Sport Enjoyment, Enthusiastic Commitment) had both negative and positive relationships with Athletic Identity (H₅). Furthermore, it turned out that Athletic Identity also had a positive relationship with Constrained Commitment (H₆).

During my research, I analyzed the relationship between the sources and types of sport commitment through path analysis. These analyses showed the sport commitment profile of my sample, thus Sport Enjoyment, Valuable Opportunities, Desire to Excel – Mastery and Personal Investment – Quantity had a positive relationship with Enthusiastic Commitment. Other Priorities, Personal Investment – Loss, Social Support – Informal and Social Constraints had a positive relationship with Constrained Commitment. Both results showed consistency with my hypotheses (H₇₋₈).

I investigated the relationship between the Sport Commitment Model and the difference with psychological variables. My result showed me that enthusiastically committed athletes had a higher level of well-being, future orientation, and intrinsic aspiration, while obligatory athletes had a higher score on extrinsic aspirations, health attitude. According to this result, my hypothesis was partially confirmed (H₉).

There are relationships between perfectionism and sport commitment as well. It seems *organization* and *personal standards*, had a positive relationship with *Enthusiastic Commitment*. Concern over mistakes, *parental expectations*, *parental criticism*, *doubts about actions* had a positive relationship with *Constrained Commitment* (H₁₀).

In the last part of my dissertation, I focused on Sport Enjoyment since it turned out it is one of the most important sources of commitment. I used Wiersma's (2001) model to find out what is a drive of enjoyment for adolescent athletes. It seems these athletes enjoying their sport, because of the competency and the achievements that they might perform (H₁₁). I analyzed the relationships between the Sport Enjoyment model and psychological behaviour. My hypothesis was not entirely confirmed since the subjective well-being and future orientation had relationships not only with the intrinsic enjoyment but also with extrinsic sport enjoyment as well (H₁₂).

DISCUSSION

My research had several positive results. First of all, the Sport Commitment did not have any Hungarian literature and did not have any measuring tool previously. Furthermore, I found several relationships which might help prevent dropout from sport. I can conclude from my results that if the athletes are committed to a sport enthusiastically, they will participate because they enjoy it and they find opportunities in it, which encourage them to put more energy and effort into their sport and they also find their goals in the activity. From my sample, it turned out that, the enthusiastically committed athlete trains more, competes higher level and most of them are representative of a team sport.

On the other hand, Constrained Commitment has a positive effect on sport participation, but also has negative effect on adolescent motivational attitude since alternatives play a big role in their commitment and it seems they are staying in sport for acknowledgment from others and they do not want to lose the effort and energy what they already put into their sport activity. The

adolescent who feels obligation in their commitment does not train much and does not compete at a high level.

One of my main aims was to investigate connection between health behaviour and commitment. My results showed that higher sport commitment not only increased sport participation, but also it could affect the individual's health psychology, hence their life goals and well-being. For example, my studies showed that subjective well-being, future orientation, perfectionism, aspirations, not only could be increased by regular physical activity, but also it seems that level of commitment is affecting psychological behavior as well. I believe my findings may help psychologists and coaches to facilitate adolescents engagement in sports activities since the beginning of their sports, as per the fact that it can have many beneficial effects on their health behaviour.

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