

Working relationship between medical and sport science departments in football – An explorative study into English and German elite youth academies

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Headline

The predominant aim of elite youth football academies is to develop players for the first team or at least generate income through the sale of marketable assets (1). The UEFA introduced guidelines for European football clubs, which impose minimum requirements for a club’s infrastructure, which lead to similar organizational structures across Europe (2). Thereby the three leading sectors of coaching, medical surveillance and sport science play a predominant role. In this context sports medicine evolved to a scientific discipline, which promotes an interdisciplinary commitment to the athlete (3). Nancarrow et al. (2013) provide a framework for quantifying interdisciplinary work by identifying ten characteristics and themes (Figure 1.).

Aim

Are the themes and characteristics identified by Nancarrow et al. (2013) for good interdisciplinary work in the health care environment also detectable in elite youth football academies?

Methods

To the moment literature about the measurement of the interdisciplinary work performance between sport science and medical departments in elite football at academy level is very thin. For that reason, this study was decided to be approached via qualitative methods (5). Semi-structured interviews were selected to explore this topic via the experience of those who have first-hand practice within elite sport at a academy level (Performance Management Interview Guide - Supplementary materials). For analysing the data, the method Direct Content

Analysis was considered to be the most appropriate approach. This methodology offers a systematic guideline for data collection to extend conceptually a theoretical framework or theory (6). The sample consist of six current heads of either sport science or medical department (3 male German Bundesliga; 3 male Premier League) who range in age from 31 to 50 years (M= 41,7 years). The participants work in elite sport for between six to 25 years (M= 16,7 years) and as a head of the department for between six months to 16 years (M= 5,4 years). In terms of the sample size, six participants were considered an appropriate number, because they began to recall analogous vignettes as the data collection phase progressed indicating data saturation. The main characteristics of the interviewees are shown in Table 1.

Results

The interviews ranged in duration from 50 to 120 min (Mean = 77,8 min, SD = 38 min), were transcribed verbatim, and yielded 177 pages of 1.5 spaced text. The grouping of the codes was according to the research findings by Nancarrow et al. (2013) by using their prescribed ten characteristics for good interdisciplinary work as predetermined themes to organize the collected data. The interview data was abstracted into further lower order themes which emerged during the process to further illustrate similarities and differences in their operational behaviour. The qualitative validity criteria during the data analysis process was enhanced by triangulation from different researchers (7). According to the the defined characteristics and themes by Nancarrow et al. (2013) only six out of ten characteristics were sufficiently be found (Table 2.).

The results indicate shortcomings in interdisciplinary work practices in the investigated elite youth football academies and reveal possibilities for further development in their operational behaviour. The findings of this work are thus consistent with observations made by other research groups (8), which indicate the need for a multidisciplinary problem solving approach to further develop player and prevent injuries in professional football. The insufficiently detectable characteristics are further illustrated in Table 3. which are Clarity of Vision, Quality and Outcome of Care, Communication and Personal Reward, Training and Development.

Discussion

Research has demonstrated the necessity of analysing the operational behaviour of elite youth football academies (2). Therefore, the purpose of this study was the examination of the interdisciplinary work between the sport science and medical department by investigating, if the themes and characteristics identified by Nancarrow et al. (2013) for good interdisciplinary

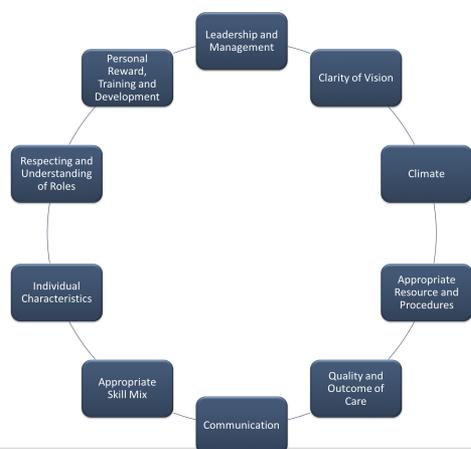


Fig. 1. Ten characteristics of good interdisciplinary work by Nancarrow et al. 2013

Table 1. Participants description

n = 6	Age (years)	Working in elite sport (years)	Working as Head of Sport Science/ Medical Department (years)
Min	31	6	0.5
Max	50	25	16
Mean	41.7	16.7	5.4

Table 2. Detectable characteristics of good interdisciplinary work according to Nancarrow et al. 2013

Characteristic	Lower order theme (n)		
Leadership and Management Department Objectives (6)	Listening and Support (6)	Strategic Development (3)	
Climate and Safe Environment (6)	Encourage Dialog (6)	Encourage Consensus (6)	
Appropriate Resources and Procedure	Appropriate Infrastructure and Resources (5)	Physical Office (2)	
Appropriate Skill Mix	Sufficient Team Staffing (6)	Interdisciplinary Problem Solving (6)	External Expertise to Strategize (1)
Respecting and Understanding of Roles	Role Description (6)	Role Interdependence (6)	
Individual Characteristics	Alignment (6)	Character and Skill Set (6)	Personal Index Assessment (1)

Table 3. Non - Detectable characteristics of good interdisciplinary work according to Nancarrow et al. 2013

Characteristic	Lower order theme (n)		
Clarity of Vision	Code of Conduct (6)	Technology Driven (1)	
Quality and Outcome of Care	Documentation of Player Performance Plan (6)	Evaluation of Player Satisfaction (1)	Evaluation of Employee Satisfaction (1)
Communication	Multidisciplinary Team Meeting (6)	Uniform Benchmark System (2)	
Personal Reward, Training and Development	CPD Budget (6)	Value for Department (6)	Personal Index Assessment (1)

work in the healthcare environment are also detectable on an academy level. Concluding the results of the investigation, according to the the defined characteristics and themes (4), only six out of ten characteristics were sufficiently available, which were: Leadership and Management, Climate, Appropriate Resources and Procedure, Appropriate Skill Mix, Respecting and Understanding of Roles and Individual Characteristics. The findings confirm the statement of Relvas et al. (2) who described similar organizational structures among professional clubs across Europe, which was confirmed inter alia by the higher order theme: Appropriate Resources and Procedure. Despite the clubs' formalized organizational structure, an apparent lack of communication was described as well (2). Ekstrand et al. (9) described that teams with high internal communication quality have lower injury rates and higher player availability. Their study supports the defined higher order theme Communication as a part of a characteristic of good interdisciplinary work. This leads to the insufficiently detectable characteristics, which are: Clarity of vision, Quality and Outcome of Care, Communication and Personal Reward, Training and Development. The higher order themes Clarity of Vision and Communication can be assigned to deficits in the strategic management process of the investigated youth academies (10). This process can be summarized as a holistic approach to performance that spans numerous dimensions, which are fundamental to the effective delivery of an organization's mission

(10). In order to find a point of entry into this multifaceted subject area and into a change process the development of a mission statement is perceived as a starting point for shaping and directing the entire organization (11). According to Bartkus et al. (12) it works mainly as a communication tool to public, as well as in internal communication tool by manifesting organizational objectives. A mission statement therefore is a comprehensive concise statement defining what the organization does for whom, how and why. Based on the mission a goal statement defines what the accomplishments should be. Therefore, a goal is an issue oriented statement of an organization's desired future direction (13). In this context it should be emphasized that goals cannot be measured, they are merely slogans (13). An objective decided from a goal through the fact that it is a measurable target that describes specific end results within a given time period (13). Thereby strategic objectives should be specific, measurable, time-based, realistic and result oriented. Clear defined organizational objectives lead to higher employee satisfaction, as it encourages everyone to raise their performance and develop their abilities to the benefit of the individual and the organization as a whole (14). Based on this the insufficiently detectable characteristic of the higher order theme Quality of Care should be highlighted as well. As indicated by the frequency of the lower-order themes Evaluation of Player Satisfaction and Evaluation of Employee Satisfaction. Only one interviewee fulfilled all the criteria of this higher-order theme (4). According to Rajala (15) it is

important for organizations to listen to their employees and take their ideas and perceptions into considerations especially when developing different issues and operations. The research of employee and player satisfaction can additionally provide early-warning signals of problems that otherwise result in disputes and the loss of productivity (16). A consideration of this feedback mechanism to improve the quality of care and the service provided. Those can lead to further organizational development and enhance employee satisfaction which goes along with higher organizational performance. Further possibilities for the development of the employee satisfaction are revealed by the findings at the higher order theme Personal Reward Training and Development, which could be enhanced by the creation of clear opportunities of promotion and progression. The research findings of the insufficiently detectable characteristics pointed out deficits mainly at the strategic management process of the investigated youth football academies and represent a starting point towards the development of the interdisciplinary work. A further elaboration of the strategy management process for a football academy would go beyond the scope of this work and points to further research work.

Practical Applications

- Need for more interdisciplinary work has already been demonstrated by several research groups
- Research findings of the insufficiently detectable characteristics pointed out deficits at the strategic management process
- Formulation of a mission statement can be viewed as entry point towards the multifaceted phenomenon of strategic management
- A mission statement is a comprehensive concise statement defining what the organization does for whom, how and why

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Supplementary materials

Performance Management Interview Guide

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