



University of Thessaly
Department of Physical Education and Sport Sciences

Can I Make it?
Exploring the Transition Process into a Handball Academy in Germany

By

Levke Svea Spinger

The present thesis is submitted as Partial Fulfillment of the Requirements for the Degree of European Master of Sport and Exercise Psychology at The University of Thessaly

Approved by supervising committee:

Main Supervisor: Marios Goudas, Professor, University of Thessaly, Greece

Supervisor 1: Natalia Stambulova, Professor, Halmstad University, Sweden

Supervisor 2: Maria Hassandra, Senior Lecturer, University of Jyväskylä, Finland

Trikala, Greece 2016

Declaration by Author

This thesis is composed of my original work, and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

I have clearly stated the contribution of others to my thesis as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, and any other original research work used or reported in my thesis. The content of my thesis is the result of work I have carried out since the commencement of my research higher degree candidature and does not include a substantial part of work that has been submitted to qualify for the award of any other degree or diploma in any university or other tertiary institution. I have clearly stated which parts of my thesis, if any, have been submitted to qualify for another award.

I acknowledge that electronic and hard copies of my thesis must be lodged with the University Library.

I acknowledge that copyright of all material contained in my thesis resides with the copyright holder(s) of that material.

Levke Svea Spinger

Abstract

The present study aimed to (a) investigate the multi-level context and pathways through the transition to a handball academy in German student-athletes and (b) to explore student-athletes' transition experiences including their perceived demands, resources, barriers, coping strategies, and outcomes. The holistic athletic career model and the athletic career transition model served as theoretical frameworks. Semi-structured interviews were conducted with 7 male student-athletes ($M = 15.85$ years old), who were either in their first or second year at the academy. The identified pathways in the participants' athletic, educational, psychosocial, and psychological development reflect the socio-cultural context of Germany and help to understand their background. An overarching demand was the improvement of life skills, more specifically the management of an independent lifestyle. The manifestation of time-management, the management of sleep and regeneration, expectations about the transitional demands, conscientiousness, and the attitude of investing minimal effort played a key role as both internal barriers and resources. Crucial external barriers were the absence of parental control and the academy's inconsistency between stated values and lived reality in dual-career goals. A supportive coach-athlete relationship was a central external resource. Two core factors were identified to manifest student-athletes' successful transition outcomes, which were the acquisition of the ability to manage all parts of the participants' new stage of life successfully and the expression of the motivation to continue by formulating future goals. Recommendations for the academy to enhance the living situation for the participants by reducing external barriers and providing support for the development of internal resources were formulated. Future research should aim to provide insight into the socio-cultural context of dual career transitions in other countries, in long-term retrospect and with a more diverse group of participants.

Table of Contents

Introduction.....	1
Review of Literature	3
Definition of Basic Concepts	3
Athletic careers.	3
Transitions.....	3
Theoretical Frameworks	4
The holistic athletic career model.	4
The athletic career transition model.....	5
Current Research Trends in Athlete Career Transitions	7
Transitions into residential training center.	8
Dual career and dual career transitions.	9
Role of context in career transition research.....	11
Context.....	12
Objectives	14
Method	16
Research Design.....	16
Participants.....	16
Procedure	17
Data Collection	18

Data Analysis	19
Establishing Trustworthiness	21
Results.....	23
The Student-Athletes' Transition to the Academy: Multilevel Context and Pathways.....	23
Athletic context and pathways.....	23
Educational context and pathways.....	24
Psychosocial and psychological contexts.	26
The Dynamic Process of the Transition	27
The transition demands	27
Learning more complex game system and advanced tactics.	27
Improving technical competences.....	28
High input and amount of feedback from coaches.	29
Adapting to a new class level.....	29
Maintaining relationships over distance.	30
Making new friends in new environment.	31
Dealing with lowered place in handball hierarchy.....	32
Orientation in new city and environment.....	33
Improving life skills.	34
Managing household duties.	35
Managing lifestyle.	35

The transition resources and barriers.	36
Internal resources and barriers.	37
Handball competences.	37
Switch to a new playing position.	38
Muscle soreness and extreme exhaustion.	38
Perceiving learning as fun.	39
Competences and knowledge in school.	40
Attitude of minimal effort.	41
Missing the old social environment.	42
Conscientiousness.	42
Communication skills.	44
Previous experiences in household duties.	44
Time-management.	45
Managing regeneration and sleep.	46
Self-confidence.	47
Expectations about transitional demands.	47
External barriers.	48
Increased time requirement of handball.	48
Lacking parental control.	49

Academy's inconsistency between stated values and lived reality in dual career goals.	50
.....	50
Lacking cooperation with partner schools.	53
Parental pressure.	53
Arguments with old friends, girlfriend.	54
Ineffective use of rooms for privacy and free time.	54
Organization of meals and food supply.	55
Prohibition to have visitors.	57
External resources.	57
Professional training environment.	57
Supportive coach-athlete relationship and a mastery-oriented climate.	58
Cooperation with partner school.	60
Academy as interface between school and handball.	61
Private lessons.	61
Support from significant others.	62
Familial atmosphere in the academy.	62
Location of the academy.	63
Coping strategies.	63
Asking for help and discussing problems.	63
Improving planning and preparation of daily life.	64

Relaxation and refocusing.....	64
Positive reframing of the current situation.....	65
Increasing effort.....	66
Avoiding negative experiences.....	67
The transition outcomes.....	67
Successful outcomes and core factors for positive adaptation.....	68
First core factor for adaptation.....	68
Second core factor for adaptation.....	69
Unsuccessful outcomes.....	70
Injury.....	71
Insufficient performance in school.....	72
Crisis transition.....	73
Duration of adaptation process.....	73
Discussion.....	75
General Discussion.....	75
Limitations.....	76
Implications for the Academy.....	77
Future Research Directions.....	79
Conclusion.....	80
References.....	83

Appendices..... 89

Introduction

In order to optimize their sporting environment, many high performance athletes move away from their place of origin and choose living in a residential training center instead where elite sport settings are provided and athletes aim to enhance their performance levels (Stambulova, 2016b). This does not only apply to adult elite athletes, but also to young talents who are underage and still visit school. Promising young athletes leave their parents' home prematurely than usually culturally practiced and move to sport academies and high performance training centers, which are fundamental components of talent promotion structures in many countries in Europe (e.g., Elbe, Szymanski, & Beckmann, 2005; Verkooijen, van Hove, & Dik, 2012). Living on their own for the first time as well as the shift to elite sport settings and a new school is a major change in the adolescents' lives and comes along with a set of challenges the young athletes have to face. One of the major challenges for this new stage of life consists in pursuing the dual career pathway: Finding a satisfying balance for the double load of school and sport is therefore a core factor for the process of adaptation in the adolescents' new living environment (Stambulova, Engström, Franck, Linnér, & Lindahl, 2015).

The importance of dual careers for student-athletes has also been brought into focus of political bodies and led to the formulation of the "The EU Guidelines on Dual Careers of Athletes" (2012), stating that "Private life and developments outside sport should be respected and a balance in athletes' lives [is] considered important" (p.10). The document functions as a collection of suggestions for the member states and their national sport federations and clubs in order to establish new environments respectively to develop existing structures, which enhance the conditions for athletes following dual careers. Furthermore, it includes a part stressing the specific role of sport academies and high-performance training centers, stating that

special emphasis should be given to their personal development and all round education with the help of coaches, teachers and health experts. Moreover, it stimulates the national sport federations to the development of such guidelines in their own country" (p.12). In Germany, the EU-guidelines initiated the "10-points-programme of the DOSB for dual-careers" of the German Olympic Sports Confederation (2013).

Even though the majority of sport academies in Germany are established, run and supported by the DOSB, there are also existing training centers, which are operated as private academies or collaborating with a regional club (EU, 2012). Such a private academy is the new home for the participants of the present study. They are adolescent male handball players in Germany and their transition and adaptation process to their academy is the objective of the present study.

Review of Literature

Definition of Basic Concepts

Athletic careers.

The term of an *athletic career* is defined as multi-year activity in sport, which is chosen by the athlete on voluntarily basis, aiming to achieve the individual's athletic peak performance level in one or more sport events (Alfermann & Stambulova, 2007). From the beginning of a sport career during childhood or early adolescent years, over achieving personal peak and finally to the termination of the career the athlete passes different stages in his or her development. Several models arose in the past to describe the successive phases in athletic careers (e.g., Bloom, 1985; Côté, Baker, & Abernethy, 2007).

Transitions.

Athletes, experiencing several developmental stages on different levels as described above, face *transitions* when passing from one stage to another. Career transitions can be described as “turning phases in career development that manifest themselves by sets of demands athletes have to meet in order to continue successfully in sport and/or other spheres of life” (Alfermann & Stambulova, 2007). These transitions can either be normative or non-normative (Stambulova, 2009). Normative transitions are predictable for the majority of athletes such as the transition from junior-to-senior level on the athletic level or the transition from primary to secondary school on educational level, for example, Stambulova (2003, 2009) developed six normative transitions athletes necessarily have to face throughout their athletic career each coming along with its own characteristics. Non-normative transitions are less or not predictable at all and do not happen for all athletes, for example, an injury, change of the partner, the coach

or the team (Stambulova, 2014). They cannot be foreseen by athletic career models and occur individually. Furthermore, some transitions do not fit into this classification. They occur only for specific group of athletes and are called quasi-normative transitions (Schinke, Stambulova, Trepanier & Oghene, 2015; Stambulova, 2016b). Exemplary quasi-normative transitions consists for example in the transition to a residential training center, the transition to another country in order to follow the athletic career or transitions according to important competitions, for example, the Olympic Games.

Theoretical Frameworks

The holistic athletic career model.

The previous models, which described the phase-specific structure of an athletic career, solely focused on the athletes' development in their sport. With the introduction of the *holistic lifespan perspective* (Wylleman & Lavallee, 2004) the career of an athlete was no longer exclusively considered under athletic aspects, but also other domains in life such as the social background of the athlete or his or her educational respectively vocational career were taken into consideration. The athletic career was part of the concept of a whole life career (Wylleman & Lavallee, 2004).

The latest updated model is the holistic career model (Wylleman, Reints, & De Knop, 2013). It consists of five layers, each stressing chronologically a specific development in the life of the individual. First, the athletic development is divided into the initiation, development, and mastery and discontinuation stage. The beginning and end of a particular phase is highly depending on the type of sport, gender and individual development. Second, the psychological level stresses the biological development and the maturation process of a person, dividing the

stage of childhood (until 12 years old), adolescence (13 to 18 years), and adulthood (19 years and older). Third, the psychosocial level describes the influence and importance of significant others in the sport-related network of the athlete, including parents and siblings, the romantic partner, friends and peers, teammates, coaches, and supporting staff. The fourth layer describes the educational respectively vocational development and is divided in the different stages of the course of education and vocation (primary, secondary and higher education as well as vocational training/ job). The fifth layer stresses the most influencing financial supporters of the athletes during the course of his or her sport involvement. The impact of family, sport federations and later National Olympic Committees, sponsors and employers is taken into account on this level.

Furthermore, the individual levels cannot be viewed separately. In reality, the levels are highly interdependent, meaning that challenges in one area can easily influence the development in other areas as well (Wylleman, De Knop, & Reints, 2013).

As Stambulova & Wylleman (2015) determine, it is natural to use the holistic lifespan approach and apply the holistic career model in investigating dual-career transitions since the athlete faces various transitions on several levels of their development. Therefore, this model functions as the first theoretical framework for the present study.

The athletic career transition model.

The second underlying framework to understand the process of the career transition is the *athletic career transition model* (Stambulova, 2003, 2009). The model describes a transition as a dynamic process, coming along with its specific set of demands the athlete has to cope with applying coping strategies. Furthermore, internal and external barriers as well as resources are taken into consideration, too. The effectiveness of athlete's coping with the transition demands defines the outcome of the transition and subsequent paths. It influences also the long-term

consequences of the transition's outcome. A successful transition increases the athlete's chances to have a long and successful career in sport, adapting effectively to post career. Failure to cope with transition leads into a crisis transition, often followed by negative long-term consequences, for example, dropout, neuroses, alcohol/drug abuse (Stambulova, 2009). The components of the transition will be described in the following part.

Firstly, the *demands* of a transition arise from the clash between the athlete's perceptions of on the one hand what he or she is and on the other hand what he or she ought to or wants to be. This conflict activates the athlete to either develop new resources or to make use of existing resources to deal with the demand. This is called *coping*. The dynamic balance between the factors of *coping resources* and *barriers* define the effectiveness of the resolution. Both aspects can be distinguished into external resources and barriers, which are laying in the environment of the athlete, and internal resources and barriers, which laying in the athlete him or herself. External resources can consist of social support from family members, friends, the romantic partner, but also from the sport network, for instance the coach. Furthermore, the sport facilities and the institution can function as external resources, for example, excellent training conditions or the provision of optimal medical care through doctors and physiotherapists. Internal resources can be personality characteristics, previous experiences with transitions, knowledge in important areas, life skills such as self-regulatory capacities, motivation etc. Internal barriers can consist of lacking knowledge, inadequate manifestation of required skills or injuries. External barriers can be the absence of optimal conditions for training practice, lacking financial or social support or difficulties to pursue a dual career. The *outcome* of the coping process can either be effective, meaning a successful transition, or ineffective. When an athlete is able to cope with the demands by mobilizing resources and handling barriers, a successful transition assures the athlete's

satisfying continuation in sport and the maintenance of health and well-being. If the opposite is the case, the athlete experiences a *crisis-transition*. If the athlete receives psychological assistance to manage the demands in this situation, he or she receives the chance to turn the transition in a delayed successful transition. If the psychological assistance does not help or the athlete does not receive any, the *costs* of failure consists of long-term consequences such as dropout, decreased sport performances, over-training, injuries, and neuroses, psychosomatic illnesses such as eating disorders or alcohol/ drug abuse. Psychological interventions respectively preventions can be applied before the transition to prepare the athletes for upcoming demands, during the coping process, when ineffective coping occurs as a crisis intervention or when long-term costs of failure occur (Stambulova, 2009). Stambulova (2003) determined specific symptoms in order to recognize the outcome of the transition process as ineffective. Clear symptoms of a crisis-transitions are the following four categories: decrease of athlete's self-esteem, chronic emotional discomfort, and increase in athlete's sensitiveness to failures and in a number of psychological barriers and in disorientation in decision making and behavior.

Current Research Trends in Athlete Career Transitions

The transition into residential training centers as well as dual career and dual career transitions have been identified as new research trends within the field of career transitions (Stambulova, 2016; Stambulova & Wylleman, 2015). Furthermore, the *cultural praxis of athletes' careers* has also been formulated as a new paradigm and will therefore be mentioned briefly (Stambulova & Ryba, 2014).

Transitions into residential training center.

The transition into a residential training center is differentiated from the dual career transition mainly by the fact that the athletes move because of their sport (Stambulova, 2016). Their overarching goal is to benefit from the elite sport settings including high quality staff, (training) facilities and training partners in order to prepare optimally for important competitions and to achieve peak performance therein. The situation for adolescent athletes is a bit different, since they necessarily have to follow a dual career because they have to attend school. They cannot focus solely on their athletic development. Nevertheless, the research work in this area is also important for the present study. It provides valuable information about the athletic aspects of transition and adaptation experiences for dual career transition research.

The first study stressing the life situation of athletes living in residential training centers was conducted with Dutch athletes (Verkooijen et al., 2012). However, this study focused on the relation of athletic identity and well-being among athletes living in the Dutch Centre for Elite Sport and Education compared to elite athletes not living in there. Results revealed that the degree of athletic identity was not negatively correlated with well-being as hypothesized before. Furthermore, residential athletes showed no differences in athletic-identity, but demonstrated lower psychosocial well-being and a higher reduced sense of accomplishment. Although the study was the first one putting residential athletes into focus, they did not examine a transitional process. Moreover, the study was conducted quantitatively and was not restricted to a specific age group (age range of participants from 16 to 30). However, this research points at that residents of sport academies are at risk to a decrease of well-being, which is an essential resource to meet a central demand namely enhancing and delivering top performance.

An important study stressing athletes' transition to and adaptation at a residential training was conducted in the United States by Poczwardowski, Diehl, O'Neil, Cote, and Haberl (2014). In a mixed-method study six athletes who used to live in the Olympic Training Center in Colorado Springs reported about internal and external resources that were facilitative for a successful transition to their new environment. Furthermore, they completed psychometric testing, assessing optimism, athletic coping skills, athletic identity, resilience, and life orientation. Results showed that optimism, a balanced sport and private life, and performance enhancement were crucial points that contributed mainly to a successful transition. The authors of the study concluded that a successful transition is defined as a successful adaptation to the new environment in both short-term (in the first weeks) and long-term (after months and also over years) resulting in successful international performance, also paying attention to the outcome, namely the athletic success of the participants. However, the interviews were conducted retrospectively as participants concluded after their residency in the Olympic Training Center and their international success was on average 5.5 years ago. Therefore, the temporal structure of the transition process could not be identified. Furthermore, the athletes were in average 23.5 years old when they moved to the training center and clearly older than the participants of the present study.

Dual career and dual career transitions.

Dual career transitions are defined as simultaneous transitions in both terms sport and education respectively vocation and are expected to be normative transitions (Stambulova, 2016). As mentioned above, the transition in this study is classified as quasi-normative, since the athletes are lateral entrants in their new school environments and the athletic change is not

necessarily required as for instance the junior-to-senior transition. Therefore, the demands of the transitions in this study are comparable.

Three previous research works were identified as important to frame the present study in the existing literature. Two of them are stressing factors of adolescent athletes pursuing a dual career at elite sport schools in the sociocultural context of Germany. Even though they do not stress the transition process of the student-athletes specifically and are conducted as quantitative studies, they are important in a way that they shed light on the life situation of student-athletes living in boarding schools in Germany.

The first one of them examined the development of volitional skill in adolescent talented athletes (age range from 12 to 18), who attend an elite sport school (Elbe, Szymanski, & Beckmann, 2005). Volition is considered important for the young athletes for managing long and intense training loads during an athletic career and to realize the double load of a dual career. Participants attending the schools were either living at home or on-campus. A control group consisted of non-athlete adolescents who attended a regular high-school. The results of a cross-sectional and a longitudinal study revealed that the athletes living on-campus showed a more positive development in self-optimization, an important factor in volition. It includes competences that are needed to reach a goal.

The second study investigated personal characteristics as possible predictors for dropout in adolescent athletes who are pursuing a dual career at an elite sport school in Germany, too (Baron-Thiene & Alfermann, 2015). In the context of career transitions dropout represents an outcome of a non-successful athletic transition. Results showed that personal characteristics, particularly the motivation to win and self-optimization as a volitional component, were powerful to predict athletes' continuation in sport versus their premature withdrawal from youth

elite sport (dropout). Unfortunately, it is not clear, whether the participants were still living with their parents, on-campus, or both.

One current study is highly important for the present study. Stambulova, Engström, Franck, Linnér, and Lindahl (2015) conducted a mixed-method and longitudinal study with adolescent athletes during their transition process to the national elite sport school of Sweden during their first year. Participants had to leave home in order to attend the national elite sport school, housing accommodations differ among the students. The research in this study focused on their dual career experiences, which were examined through two interview series in the beginning and in the end of the school year with ten participants. Furthermore, they also stressed the development of the participants' athletic and student identities through quantitative measurements of 250 participants at the same dates. The study showed that personal resources (according to the athletic transition model, read above) played a key role for the adaptation process. The striving for a well-balanced life between sport, studies, and the athletes' private lives was identified as the core of their transition process. Furthermore, the participants scored significantly higher on the scales for athletic identities than on the ones for student identities in both measurements. Nevertheless, interviews could reveal personal changes throughout the school year in setting priorities to the different areas.

Role of context in career transition research.

The research on dual careers and dual career transitions stemmed originally from the North American context, where sport and education are combined and organized within the institutions of high schools, colleges and universities, whereas the research of dual careers in European context came later in focus of sport psychology research (Stambulova, 2016). The formulation of the EU guidelines on dual careers of athletes (EU, 2012) has stimulated several

studies in this area. Lately, a special issue concerning research on "Dual career development and transitions" (Wylleman & Stambulova, 2015) identified thirteen vanguard research works, with the majority of included studies investigating dual careers in European context.

Not only specifically on dual career research but for career transition research in general, the perspective of research has broadened to a cultural view of athletes' careers and their transition to take into account the development in the international world of sport (e.g., globalization). This new research trend has led to the formulation of the new paradigm called the *cultural praxis of athletes' careers* (Stambulova & Ryba, 2013), stimulating research to understand athletic careers and transitional processes against the background of the particular sociocultural contexts. This study is inspired by the cultural praxis of athletes' careers paradigm, and it blends transition theories, research, practical recommendations and athletes' dual career context to deeper understand the transition to the handball academy in Germany.

Context

The participants of this study are visiting a handball academy in Germany¹. The professional handball team of the cooperating club plays in first handball division in Germany and competes regularly in the Champions League as well. In the city with approximately 85.000 inhabitants, the team is the most popular sport team and one of the attractions of the city. The residents of the handball academy are competing for the youth teams of the club².

¹ All information for this section were gathered through interviews with the academy's staff, through personal visits of the researcher at the facilities, and through the homepage of the academy.

² The residents of the academy do not necessarily have to play for the same club. Depending on their performance level and preferences it is also possible that players join another handball team in their age group in the region. Nevertheless, the majority of the inhabitants play for the club and athletes participating in this study exclusively play for the youth team of the club.

The building of the academy emerged from the initiative of the supporting association, which supports the offspring and youth teams of the aforementioned handball club since 2000. With the building of the academy the founders aim to increase the sport infrastructure and want to support the training of young talents and the sustainable development of handball. The project is relatively new; the first athletes moved to the academy in winter 2014/ 2015.

The academy is economically independent and has the status of a limited liability company. It is neither a part of any regional or national sport authorities, such as the German Olympic Sports Confederation, the German Handball Federation or other regional sport federations nor does it belong to the first-league-handball club of the city. The concept of the facility provides an autonomous financing concept so that the academy is not dependent on financing of federations mentioned above. Consequently, the management is not subject to subordinate control regulations coming from higher federations such as operational specifications, quality control mechanisms and transparency regarding work process and output of the academy (EU guidelines). As a result, the academy is able to continuously provide a high standard environment without being in need to react to changing funding and financing conditions. Working process and decision making can be discussed in a relatively small team of experts and employees with a low hierarchical level. On the other hand, being financially supported by official bodies would provide extreme security for the academy and would be facilitative to enhance the academy's quality standard.

Each athlete's place is partly financed by a monthly rent of the parents and partly by the academy itself. Scholarships funding can be applied for when having a socially deprived family background.

Maintaining a personal and familial atmosphere, the facility is designed for a maximum of 20 residents. Athletes live in double-single-rooms, meaning that each athlete has a room on his own, but shares a floor including a kitchen unit and bathroom with another player. A big recreation room functions as shared living room and kitchen, where athletes can spend their free time together and prepare breakfast and dinner. Athletes do not have to do groceries on their own. Lunch is provided in the restaurant of a catering service in town. Players visit public secondary schools. Several schools are available in the city; players are visiting schools according to their educational level and their and their parents' preferences. All of the important facilities (school, gym for strength training, gym for team practice, physiotherapy) can be reached within 5 minutes walking distance or maximum 10 to 15 minutes by bike. The concept of the academy and the promotion of young handball talents is internationally well-recognized. In the previous year, about 200 applications were received from young handball players from several European countries. Besides the unsolicited applications, the academy staff is also scouting players. Promising athletes are invited for a test week and practice, before the offer to live in the academy is announced.

Objectives

Based on the previous review of existing literature and the environmental context of the academy, the purpose of the following study is twofold: The first objective is to investigate the multi-level context and pathways through the transition to the handball academy in German student-athletes. The holistic athletic career model will function as theoretical framework for this part of the study. The second objective is to explore student-athletes' transition experiences

including their perceived demands, resources, barriers, coping strategies, and outcomes. The athletic career transition model will serve as theoretical frameworks for this part of the study.

Method

Research Design

The present study is designed as a qualitative study. Especially in the research area of athletic careers and career transitions athletes' experiences throughout their sport involvement are diverse and each career can be unique in itself. Qualitative research methodology provides the opportunity to explore these various pathways, to understand the individual pathways in their specific contexts and to attach value to athletes' personal meanings of their experiences (Stambulova, 2016b).

The main part of the data derived from interviews with seven student-athletes. They were in their first respectively second year at the academy. Consequently, the interviews were conducted in short-term retrospect, since the participants had not even completed their first respectively second year at the academy. Therefore, it was expected that the student-athletes were still able to remember the beginning of their residence at the academy precisely and vividly, yet could already sum up the adaptation process in hindsight. In support of the interview, two online webpages were included into the data corpus to obtain further information about the dual career conditions of the participants' environment. The specific use of the homepages is explained in a later section.

Participants

The participants of the study were seven male residents of the handball academy described above. Several selection criteria were used in order to find student-athletes who were eligible for participation. All participants were playing for the first team in the B youth group of the collaborating handball club, in which the birth years 1999 and 2000 are grouped. Therefore,

they experienced the same handball environment, including performance level, coaches, and handball practice. Residential players of the A, second B, and C youth teams were excluded from the study. Furthermore, student-athletes with an international or transnational background were excluded, since they are facing the additional demands of a cultural transition. The remaining group of seven student-athletes can be subdivided into two groups again: Four student-athletes were in their first year (moved in summer 2015), three residents were in their second year at the academy (moved in summer 2014). The average age of participants was 14.85 years when moving to the academy, ranging from 14 to 16 years.

Procedure

In the very first phase of the study three sport academies of the region were contacted and taken into account to conduct the interviews. The selection of the actual academy happened for the following main reason: The researcher had already built a relationship with the participants, since she did a practicum in this academy for two months. Her main tasks consisted of conducting workshops about mental skills training with the A, B, and C youth team of the collaborating club. Therefore, she was familiar with the institution and facilities of the academy and the handball club. Moreover, she was already in contact with the head, manager, and coaches of the academy. Most important were the existing relationships with the participants, which were developed throughout the previously held workshop sessions. This was seen as the strongest argument for choosing the actual academy and considered as strong advantage in order to generate valuable results.

The head of the academy gave approval to the intended research work and the management showed openness and support for the project. To be able to find exclusion and

inclusion criteria of participants, the researcher met the manager of the academy, who provided further information about student-athletes' background in handball, education, and his first impression of their adaptation process. Based on her own impressions of the student-athletes and the information from coaches and the academy manager, the selection criteria were formulated and participants were chosen.

Since the participants were minors, parental approval was given via email with the help of the academy manager. Participants were informed about the aim of the study, the form of their participation, possible risks, their right to withdrawal and confidentiality was granted. They signed a form of consent before the interviews were conducted (see appendix A). The study was approved by the Ethics Committee of the University of Thessaly, Greece.

Data Collection

The data corpus was gathered in two ways: The major part stems from seven personal interviews with the participants. The minor part of the data was the content from two webpages (Altes Gymnasium Flensburg, 2016; Flensburg Akademie, 2016). For the data collection through interviews, a semi-structured interview guide was developed, which consists of two sections aiming to gather information for both objectives (see appendix B). The first part stresses the participants' personal experiences about their transition and adaptation process at the academy and is based on the holistic athletic career model and the athletic career transition model (e.g., "And what was it like in your new school? Could you tell me what was the most challenging and difficult in your new school?"). The second part targets the participants' experiences with the dual career environment at the academy and focuses on its advantages and disadvantages (e.g., "Could you describe what is facilitative in this academy to juggle handball and school

successfully and to find a satisfying balance?"). A first interview guide was conducted in order to probe it. Minor alterations were made afterwards. Nevertheless, the first interview was still included into the data, since the results were already informative and valuable for the study. The interview guide consisted of open-ended questions (e.g., "Could you tell me what was difficult or challenging for you in the beginning when it came to handball?"). Furthermore, the researcher posed probing questions in order to stimulate the participant to describe his experiences more in depth and to gain a more extensive understanding of his situation (e.g., "And about the techniques that you had to relearn, could you describe that a bit more in detail?"). The seven personal interviews with the student-athletes were conducted in the facilities of the academy and recorded with participant's permission. They lasted between 37 and 73 minutes and were transcribed verbatim afterwards. The interviewer took notes during and after every interview to sum up the first impressions and striking aspects.

Furthermore, data were collected from two official webpages. The first data item was retrieved from the homepage of the collaborating "Gymnasium" (highest German school form, majority of student-athletes attending this school), which became the official partner school of the academy. Their online statement about the collaboration is content of this data item. The second online source was the webpage of the academy itself. Their talent development concept is accessible online and is another data item of this study.

Data Analysis

The data analysis of this study followed the "thematic data analysis" according to Braun and Clarke (2006), which is considered as "foundational method for qualitative analysis" (p. 4) in order to identify, analyse, and report about patterns within the data. One major benefit of this

method is its flexibility, since it can be applied for every type of qualitative data. Moreover, it allows the researcher to base the analysis on theoretical frameworks and apply a deductive way. Therefore, thematic data analysis appeared to be most appropriate for the present study, since the data corpus stemmed from two different sources (interviews and webpages) and two theoretical frameworks were used to analyse the data in a deductive way (top-down manner). Through thematic data analysis it was possible to incorporate the different data sets and theoretical frameworks within one analytic scheme and come to an integrated analysis.

The analysis of this study followed the six steps of thematic data analysis (Braun & Clarke, 2006). The first two steps were conducted equally for the whole data corpus: Both, the transcribed interviews and the online retrieved statements of school and academy, were converted into clear-structured files and read several times by the researcher. In the second step, the whole data set was coded. The following three steps consisted of searching, reviewing, and defining themes for the interviews. To search for themes within the data, the researcher reviewed all taken notes and codes again. Very first drafts of thematic maps were separately developed for the first and second objective, using the theoretical frameworks as guidelines. Themes were named with working titles. The entirety of all codes were assigned according to the themes. When noticing mismatches during this step, the researcher went back to the previous step to refine the previous division of themes. After organizing all codes into themes, the researcher read through the codes and the full text of the interviews again to make sure the developed thematic map matches with the plain interview content. The fifth step, defining and naming themes, was already a parallel process since the third step of the analysis. Nevertheless, closer attention to the precise formulation of themes was paid after all themes were determined. The data from the two homepages were used to support the findings of the interviews, to explain them more in detail if

circumstances of the case remained unclear and to compare student-athletes' descriptions and official statements from the institutions. The codes from the homepages were always taken into consideration parallel to the analysis of the interviews. However, the homepages were only included in the analysis, when their content was in close connection with participants' statements. Results of the comparison are added to the results section. Besides that, the homepages functioned as support in order to understand the participants' explanations.

At this point, it must be mentioned that especially the analytical steps three, four and five cannot be seen as linear and successive progress, but must rather be seen as an intertwined process. Going back to a previous step and repeating a section of the analysis is natural and part of the analysis itself. As an example, themes were shifted from one category of the models to another, summed up or divided more precisely especially during the second, third and fourth step. The final results of the data analysis were reported in the sixth and last step. Themes are explained in the final report and illustrated by quotes from the interviews. In the following results section, the quotes of the participants and the homepages are marked with the participants' numbers (P1 to P7) and the homepages as H1 and H2.

Establishing Trustworthiness

Several aspects during the research process contribute to the establishment of trustworthiness in the present study. First of all, the researcher built a trustful relationship with the participants. This did not only happen since the researcher got in contact with the student-athletes for conducting the interviews, but it started already during her practicum. During six workshops, each lasting for 90 minutes, the researcher already had the chance to get to know the participants and vice versa. The workshops dealt with performance enhancement through mental

skills training and did not cover any topics outside the context of handball. Therefore, balancing the double load of a dual career, life skills, or coping with transitions were not targeted during the workshops. However, at one point of the workshops the handball players showed interest in the personal sport background of the researcher and asked for the experiences of her own transition into a sports academy during her youth elite sport career. Thus, sharing similar experiences and proximity in age contributed to a good connection between the researcher and the participants.

Another factor which enhanced trustworthiness of the present study was the verification of the data through the participants. The transcribed interviews were sent to the student-athletes via email so that they were given the chance to review and comment the content of the collected data again. Only in one case the researcher had to exclude a three minutes passage of an interview from the data, since the interviewee did not want the content to be used for the study.

Furthermore, the codes which emerged during the data analysis were double checked and reviewed by a second person, who was the supervisor of the researcher. In the next step, which consisted in organizing the codes into themes, following the underlying theoretical frameworks of this study, two of the researcher's supervisors checked the themes again.

Results

The Student-Athletes' Transition to the Academy: Multilevel Context and Pathways

To understand the participants' transition from their parents' home to their new living environment in the academy, the holistic athletic career model was applied to describe their multilevel transition (first objective). The general structure was transferred to the present transition of the participants and adapted to the situational circumstances of the German handball academy (see appendix C). The present study uses the first four developmental levels of the model.

Athletic context and pathways.

The average age of the participants' handball career initiation was 6.86 years, ranging from 4 to 10 years. They got in touch with handball through handball projects in school, friends, or because of the involvement of family members in handball (siblings were playing handball, parent was handball coach). The participants' athletic pathways are described in this section and illustrated in an attached figure (see appendix D). All of the participants started playing handball in the local sports club of their home town. On athletic level, the development of the participants before their transition into the academy can be divided in two different pathways: One group of participants started playing handball in their home club and kept on playing for that club until they moved to the academy. The other group had started their handball career at their home club, but changed to a higher level club in their region already before moving to the academy. The first group reported that their previous handball environment was mainly fun-oriented. Performance-orientation played a subordinated to no role and winning was not prioritized. Handball practice took place two to three times a week. Participants reported that balancing the double load of

school and handball was not challenging. They were able to spend a good amount of their free time with friends and other hobbies as well. The other group had the same experiences in their home club. In their second club, handball became more performance-oriented, they were competing on a higher level and the amount and intensity of practice increased. Furthermore, the change was associated with higher timely demands, since the travelling time to practice had increased. Participants used either public transport or were driven by their parents. They spent up to one hour to get to the training facilities (one way), which was perceived as more challenging or even stressful. Participants of this group perceived the move to the academy as facilitation in the way that they did not have to spend much time on travelling anymore and benefited of the academy's infrastructure, so that they save valuable time in their daily life. One participant had already played in three different clubs before moving to the academy. Another participant was already playing for the collaborating handball club of the academy for two years before moving to the academy.

Generally in German junior handball two birth years are always pooled together for one age group. All of the participants changed to the academy and started playing for the collaborating club, when they were playing in B juniors' age group (15 to 17 years old). Therefore, they had three to four years left in junior handball in time of transition.

Educational context and pathways.

The transition on educational level must be understood against the background of the educational system of Germany. More specifically, the German educational policy is subject to the principal of federalism. Thus, the educational systems differ in parts between the 16 federal states of Germany. Consequently, the participants' educational development of the present

transition are characterized by the responsibility and jurisdiction of the federal state, in which the academy is located (Schleswig-Holstein, 2016). The student-athletes' educational pathways are explained in the following section and illustrated in an attached figure (see appendix E).

Entering school with six years, the student-athletes attended elementary school for four years. After a school reform in 2014, the secondary school system in the affected federal state is officially of bipartite and of a two-track structure: It consists of the highest school form called "Gymnasium" and a comprehensive school. A third school form is still existing and is ranged below the comprehensive school. This school will be due to expire in 2019 anyway and none of the participants attend this school form. Therefore, it is not included in the following descriptions. On "Gymnasium" student-athletes aim to graduate with the A-level, which is the highest school leaving certificate and enables German students to study on university level. Students can choose if they want to finish "Gymnasium" after a total of 12 years in school ("G8" = "Gymnasium" in 8 years) or after 13 years ("G9 = "Gymnasium" in 9 years). On comprehensive school level, students can leave school either after ten years with a secondary school certificate or already after nine years with the first school leaving certificate, which is the lowest school leaving certificate. Some comprehensive schools also have upper secondary classes (grades 11 to 13), where students can achieve their A-level after 13 years ("G9"). Lessons are taught either by internal differentiation within the class or classes are divided by different performance levels. Students graduating from secondary school after ten years have the chance to achieve their A-level on so called "second-chance" pathway if they wish to attend a higher school leaving certificate. They can attend commercial or technical high school in order to achieve their A-level in three years and are allowed to study at universities. Graduating from technical or commercial college after two years enables student-athletes to study at technical

colleges. In general, it is possible that students have to repeat a class in Germany if their school performance is insufficient. Furthermore, students can also decide to change to a lower school form, if the present school form is too difficult for them (e.g., from “Gymnasium” to comprehensive school, from higher comprehensive school class to lower class).

The participants of this study either attended “Gymnasium” or comprehensive school before moving to the academy. In the first year at the academy, participants attended three different schools. Three student-athletes attended the “G8”-classes of the close-by “Gymnasium”, which is the official partner school of the academy. One student attended a comprehensive school with upper secondary classes with the goal to graduate with A-level. Another three student-athletes attended a comprehensive school in order to graduate after ten years of school with secondary school certificate. One of them was a student-athletes in his second year and continued with technical high school (Schleswig-Holstein, 2016). In total, participants attended four different schools at the time of the interviews.

Psychosocial and psychological contexts.

In contrast to the previous two levels, the psychosocial level is not divided into different pathways. The entirety of their social environment of the participants’ place of origin consisted of their family members at their parents’ home, in some cases a girlfriend and friends from school, handball, and other hobbies. With the move to the academy, their social environment changed as well. Their new social surroundings consisted of their new roommates, new team mates and a whole new handball environment and new classmates.

On psychological level the transition was characterized by the change from living in “Mom’s Hotel” to independent living in the academy. Being supported in the organization of

their daily life when still living with their parents, the student-athletes start to live on their own for their first time in their life in the academy. The age for moving out from their parents' home is relatively early in the sociocultural context of Germany. Usually children move out from their parents' place when they start studying at a university after graduating from school.

The Dynamic Process of the Transition

This section describes the results for the second objective of the study. The athletic career transition model was applied to the context of the student-athletes' transition into the handball academy. The demands, resources and barriers, coping strategies and outcomes were explained for the present adaptation process. An overview of these components, which shape the transition process, is provided in an attached figure (see appendix F).

The transition demands

Learning more complex game system and advanced tactics.

The first demand student-athletes were facing was the need to learn a more complex game system and advanced tactics, which required a broader understanding of the handball game. The student-athletes were challenged to develop a more comprehensive overview of the game, in which not only their own movements and decisions, but also their team mates' actions needed to be taken into account. The more complex game system included also a faster style of playing, which required not only quicker movements, but also accelerated decision-making and higher level of attention. This demand is illustrated by the following quote of P7:

So, there have actually been two people. [...] We were the people, who did everything in the offense, just simply ran through. [...] And here, it wasn't like that anymore. So, you

simply have to coordinate yourself with your teammates. And we were simply not good at that at all. [...] Many new factors were starting to play a role now. We never really paid attention to that before. Eh... how you, where exactly you are running towards to pull an opponent with you and to create a gap somewhere else. We never thought about that before.

Improving technical competences.

The second demand consisted of the improvement of technical competences. Participants reported that their technical skills had only been developed in rudimentary form in their previous clubs and that they were not well equipped in terms of technical competences. The higher demands of the techniques required an advanced higher level of coordination, since their new coaches paid more attention to details of the movement. In general, the new techniques provided more efficient options for executing a successful handball technique. Some student-athletes reported that they even learned a wrong technique in their previous clubs before. In those cases, the process of eradicating mistakes and relearning the specific technique was even more demanding. The following quote from P7 illustrates this athletic demand:

I simply didn't get anything from [previous club] on my way. I mean, a bit, of course.

But my throw was wrong, I didn't really jump off, had a wrong timing. Because we were simply weren't playing stuff like that.

The perceived intensity of this demand was influenced by the participants' previous athletic pathways, meaning that student-athletes who used to play for a higher level club before did not feel the need to adapt as intense as the others.

High input and amount of feedback from coaches.

The third demand on athletic level was the high input and amount of feedback the student-athletes were receiving from their coaches. The following quote from P1 shows how intense it was for him to process all the new information in handball practice:

What was required from the content and the essentials... so that you understand the game of handball... [...] All the techniques and everything, that was new. What you didn't know before. That it was so much new input and that you had to learn so much again.

The student-athletes stressed that they did not perceive this aspect as negative. They rather appreciated the high quality feedback in order to improve their handball game. Therefore, this demand was highly influenced by the internal resource of perceiving learning as fun and the external resource of the professional training environment that provided high quality coaches and handball practice.

Adapting to a new class level.

In terms of education, the demand consisted in the fact that the student-athletes had to adapt to a new class level. At first, student-athletes had to find out on which level their new class was standing and which learning content they already possess. Comparing this class level with their own learning process, student-athletes noticed gaps between their personal and their class' level. In order to continue successfully, the student-athletes had to catch up if they found out a lack of knowledge. This demand is illustrated by the extreme situation P2 experienced:

I never had chemistry before and at that point, they already had one full school year of chemistry lessons. And then I was entering the class like 'What is chemistry?' or so. And

they knew that already and were totally surprised like 'You never had chemistry lessons before?' No, I didn't.

The perceived intensity of this demand highly depended on the personal development of the student-athlete and on which specific point in their educational career they were standing. Existing respectively lacking knowledge in school was therefore a resource or barrier for this demand. Furthermore, the educational demands were perceived as intense for student-athletes who moved to the academy before their last year of comprehensive school, since the grades were immediately relevant for their school leaving certificate. On the other hand, it seemed to be facilitative when student-athletes' first school year in the academy was not relevant for the school leaving certificate. It gave them time to adapt to the new circumstances without intense pressure to achieve good grades. Furthermore, the demands were perceived as less intense when student-athletes repeated a class or changed to a lower school when moving to the academy.

Maintaining relationships over distance.

Another demand was the maintenance of relationships over the distance, which means to stay in connection with significant others from their social environment of their place of origin. Participants reported that keeping the contact with their families was not perceived as demanding, since this relationship was more natural and of great importance for them. The difficulties more likely occurred when it came to possible girlfriends or friends from their old friend groups. P4 describes this demand as follows:

And simply the only thing that was a bit difficult to cope with was the thing with my girlfriend. [...] she is living close to [participant's home town]. That was always a bit difficult. She like... Like to please her as well. That you still had some time for her left.

P1 explains the challenging situation to keep the contact to his old friends as follows:
So... Friends was also difficult, because you start to notice which friends are really important, when you are trying to stay in contact. Or who you just know, because you went to school together and did stuff with them in school. But it was also good to see which friends are staying in contact with you and who is not.

Making new friends in new environment.

In contrast to the previous demand student-athletes were also required to build up new social contacts in their new living environment. The main areas to make new friends were the environment of the academy and the handball club, since the student-athletes moved in during the summer holidays and got in contact with their new class mates later. Participants found it helpful that they knew some other residents of the academy or players of their team before through test trainings, selection teams of their region, or playing against them in league games before. During the acclimatization period it was helpful that they could spend a lot of time together, since it took place in the summer holidays. Thus, they could build good relationships with each other. This was even more increased through training camps and travelling to tournaments in other countries.

Secondly, participants got in contact with peers in their new schools, when school started after summer holidays. Making friends in school was considered as more challenging than with their peers in the academy and the handball team. Again, the already established friendships from their handball environment were helpful in this situation, since they did not feel alone when they came to their new classes with another academy resident or local teammates put them in contact with new (school) friends. One student-athlete described this demand in his first year at the

academy as follows (P3): “First of all, you needed to make friends here. Of course, I’ve got ones from the academy. But you know, now I also have friends from school, like normal. So, people, who also live here”.

Another resident who was in his second year explained the priority of making friends in the first year in the academy and how he was able to shift his priority to school and handball in the second year, trusting on his stable friendships:

So, last year, I invested more in friends and partying and to kind of cultivate my social contacts. Because I wanted to get in contact here, too. [...] And this year, I already had the people I like, here in [city of academy]. I knew they would still, even if I don’t have that much time left, they still like me the way I am. And with them, I know I don’t have to be with them every day anymore, to spend time with them and to get in contact. [...] And then I simply focused more on handball and school.

Dealing with lowered place in handball hierarchy.

Another demand was the aspect that student-athletes had to deal with a lowered place within the hierarchy of their handball team. Coming from their previous club as talented players they were used to be one of the top performers or even the best player in their team. They usually led the team by taking responsibility, being involved in almost every action of the game, taking important decisions, scoring the most goals and/ or playing the whole match with only little or without any substitution time. Playing for a high performance club now, these aspects changed significantly. Student-athletes experienced not starting the match as usual, having less playing time and being one talented player among many others. They felt downgraded from their exceptional status as top performer to an average player or even to a substitute. Dealing with this

lowered position in handball hierarchy was highly challenging for the student-athletes. This demand is well illustrated in the following quote of one student-athlete (P2):

I had the attitude 'Boy! You need to score like that many goals! And you are the brain and you need to take the decisions!' And that was hard to stop. And I mean, I wanted to take responsibility, because I was used to do that [...]. Partly didn't really need to do that, because now... There were older or better players on my position or people playing before I did. I used to be the number one in my old club and immediately, yeah.. in [new club], there was someone else playing before I did. Who was even better. And so, I was a bit like 'you are kind of second choice'.

Dealing with this demand also meant to understand that playing throughout the whole match is physically demanding and extremely exhausting. Therefore, playing for only parts of the match was considered as a logical consequence and also a result of the more advanced tactics. In addition to this, student-athletes perceived the need to demonstrate their handball competences in order to be recognized by their coach as well. This demand was highly influenced by the internal resource respectively barrier of self-confidence and the external resource of a supportive coach-athlete relationship.

Orientation in new city and environment.

Another demand consisted of the need to orientate themselves in their new living environment. This aspect includes getting to know the geography of the new city, which means knowing their position in the area and finding the right direction to move to another location. It also includes the process of getting familiar with public transport and knowing how to get for example, to school by bus. Additionally, student-athletes got to know the environment and the

way to their new school and training facilities. Furthermore, student-athletes needed to learn where to find points of their interests such as the city center, the cinema, the beach, stores, or their new friends' homes. This demand was perceived as more intense from student-athletes, who lived in a considerably smaller city or village before. One student-athlete reported about this demand when he needed to get his bike fixed (P3):

Back at home in the small village, it is like that: There is that one bike dealer and you just go there. Here, I first needed to find one. I also didn't live in a city like this before. [...] That is also something different, too. So much more going on. Things are in different places, where you don't know them or stuff like that. That was a problem, too, in the beginning. [...] So, like now, I also know every street by heart, but in the beginning it was really... strange to orient yourself. With the ways, where everything is located, in the city center and stuff like that.

Improving life skills.

Another demand consisted in the improvement of life skills. Life skills are all those abilities, which are facilitative to succeed in everyday life (Danish & Nellen, 1997). In order to qualify as a life skill they need to be transferable to other domains in life beside the context they were learned in (Goudas, 2010). In the present study, life skills are subdivided into the aspects of managing household duties and managing lifestyle. In general, this demand challenged student-athletes to develop self-responsibility. A central characteristic consists in the fact that the student-athletes motivation for all important areas in their life now had to come from themselves (internal motivation) and that "no mother was there anymore, who told them what to do". In other words: Student-athletes had to start developing internal motivation in contrast to the

external motivated living in “Mom’s Hotel”. This demand was highly overarching all life domains of the participants’ life and challenged them throughout their whole daily life.

Managing household duties.

One aspect of improving life skills consisted in the challenge to manage household duties, which were usually done by their parents before. From now on, the student athletes had to do their laundry, prepare their meals, and clean and tidy up their rooms on their own. Additionally, they were alternately in charge for cleaning services of the hallways and the communal kitchen of the academy. This demand was highly influenced by the internal continuum of being experienced in household duties, which can function as a barrier or a resource.

Managing lifestyle.

The second aspect of improving life skills consisted in the challenge to manage their own lifestyle. This aspect was on the one hand highly influenced by the external barrier of lacking parental control as the following quote shows: “So, it was the mother who used to organize almost everything for you. That's what I meant. To set that aside, like mom is not there now. So you need to kick yourself in the ass” (P2). On the other hand, the concrete form of already existing life skills were influencing the perceived intensity of this demand as well. The organization of their daily life was highly dependent on their own responsibility now and student-athletes did not constantly get support from their parents. They had to overcome this gap by developing and enhancing their life skills to be able to create a successful daily life and find a healthy and effective daily rhythm. This fact was present throughout the whole day. Beginning

early in the morning, student-athletes were responsible to get up on time in the morning, preparing themselves for school and make sure they did not forget anything important. After finishing school, they were challenged to manage their time effectively in order to do their homework, be on time for practice, remembering important appointments, and probably even being able to make some time for friends, or other free time activities. One student-athlete reported about this demand as follows:

I really need to manage my time-management. Because sometimes in practice...

Sometimes I was late for practice or somehow, now and then, had less time for studying. So, that was actually difficult to arrange with all of that and always having an eye on the clock like 'Now you can study a bit and then you need to go to practice!' Maybe doing stuff with someone from your school class, too. That was actually difficult in the beginning, like finding a daily cycle or a controlled process (P2).

Furthermore, they had to manage their own regeneration and sleeping rhythm. Aspects such as doing homework or going to bed early enough are also underlying their own self-discipline and motivation, which they also had to develop to manage themselves. The absence parental control as external stimulus played an important role for them.

The transition resources and barriers.

The following part describes the identified barriers and resources. Firstly, internal barriers and resources are described in an integrated section. Since the manifestation of a characteristic decides if it works as a barrier or a resource, it appeared to be more reasonable to present them as pairs of contrasts or as a continuum. Student-athletes', who possess these characteristics on the positive side of the scale, can make use of it as a resource. If the opposite is

the case, they function as a barrier. Secondly, external barriers and thirdly external resources are reported.

Internal resources and barriers.

Handball competences.

One barrier consisted of lacking handball competences. These are all factors, which are missing for a great handball performance, namely lacking endurance and fitness in order to follow practice and the pace of the handball game, incomplete tactical understanding for the new and advanced game system, and missing technical handball skills. As an example, one participant (P5) mentioned his inadequate skills in order to play an effective defense:

I am not the best defense player! [laughing] And that is simply a bit difficult, too, when there are some people running towards you, who are playing for the youth national team and all that. And then, I am standing there in the defense, then you get fooled more often and then you feel a bit dumb.

On the other hand, already existing handball skills function as a resource the student-athletes could rely on. The manifestation of this resource and barrier was dependant on the student-athletes previous handball level. Players, who already played in a high division and for another high performance club, were more likely well equipped with this resource and vice versa. The following player played for the rival club of the region in the same league and described the situation as follows: “And then I was here and we were practicing for three days or something. [...] And then... there wasn't that much with a need to adapt” (P3). According to that, his previous level in handball was facilitative for him, so that did not perceive this demand as intense.

Switch to a new playing position.

Another barrier consisted of the switch to a new playing position. This aspect increased the athletic demands, since the players not only had to adapt to the new challenges on their own position, but had to learn new techniques and tactics for their new playing position in general, too. One of the participants (P7), who experienced this situation, explained it as follows:

So before, I used to play [previous position]. O, it would have probably been enough for this year. But I wasn't that advanced in the techniques such as [other player] or someone. So, I switched my position to [new position]. So, that was already a little setback again, because I completely had to learn that again. And that was difficult. To really get into that, so that you know all the tips and tricks how you are supposed to move.

Muscle soreness and extreme exhaustion.

Another barrier were muscle soreness and extreme exhaustion. Especially in their first weeks in the academy, which were the preparation phase, the student-athletes experienced this barrier. One student-athlete (P2), who did not play for a higher-level club before, described his physical exhaustion as follows:

Yeah, so that was almost on the limit sometimes. [...] Also... To lay in bed and to think that you will never get up again, because I was so, so exhausted. [...] Also soo sore! In the first one, two weeks... like nothing, I mean, nothing was possible anymore. So, it was in the holidays, when we came here. So we had two weeks for prep phase. And that prep phase was actually the worst I have ever experienced.

This barrier is highly linked with the external resource of a professional training environment and the barrier of increased timely demands of handball. On the one hand,

individual training sessions, strength training, and higher quality of training provides the handball players great possibilities to enhance their performance level. On the other hand, the shorter scheduling of practice increases the timely and physical demands of handball and shortens the time for regeneration. Asking about the effect of the additional strength training and the higher frequency of training sessions, P3 answered as follows: “In the beginning it was a bit [break] more exhausting next to all the other practices. [...] In the beginning a bit. But... I was a bit tired because one thing followed another very fast here”. Furthermore, the management of regeneration and sleep is a crucial factor in this and can either function as a barrier or resource. The exhaustion from handball practice also influenced the student-athletes’ capacity for school. The same participant reported that his grades in school got worse and reports how his exhaustion of training practice also partly contributed to that:

So it affected [the worse grades], because I was more exhausted from practice here, because it is simply more. And then, after school, I didn’t do that much anymore, just like before. [...] And then, you sometimes fall asleep, or stuff like that.

Perceiving learning as fun.

Another internal resource was the fact that student-athletes perceived learning and dealing with the new demands as fun. Even though they were challenged, they enjoyed acquiring new skills, receiving new input and gaining a new perspective. This mindset primarily occurred in the context of handball, where the participants were eager to learn more about their sport and to widen their understanding of handball. Talking about the high amount of input during practice and the high quality coaches, one student-athlete (P1) reported about his attitude as follows:

When there is [coach] as a former professional player standing in front of you and practicing with you, you trust him and you are totally eager to learn and really wants to learn more and receive a lot. [...] Ah, it was really an incentive. Yes. It didn't put any pressure on me. I found it cool in those days to come here and you were really enthusiastic afterwards. [...] Yes, that was really cool [smiling].

And further on, he explains:

Actually, I was excited about every practice. And you want to improve yourself. And that was the good part of being here. That was the reason why you were here. And for sure, I didn't come for a good school or just because I want to live at the nice fjord here. But I came, because I wanted to play handball and that's why I was excited about that. So, I thought it was cool to practice every day. And I still do.

Furthermore, participants expressed this attitude also in the context of the independent living. They enjoyed living on their own for the first time, being away from their parents, and taking self-responsibility for their lives. One participant (P7) responded as follows when he was asked what the independent living was like: “Uhm, cool! [...] I think it was really awesome! [...] I mean, I learned really quickly to deal with these things on my own.”

Competences and knowledge in school.

Moreover, already existing versus lacking competences and knowledge in the context of school are representing a pair of contrast. Student-athletes, who were lacking a lot of learning content experienced this aspect as an extreme barrier. On the other hand, good students perceived the fact that they were good in school or had learned some topics in their old school before, as a

great resource. They did not have to spend much time on school in their free time and were able to focus on other parts of their lives instead, such as P1:

And that I didn't have any problems in school, that I am quite good in school. So, that there aren't any problems with my performance level. So, I didn't really have to worry about school. So, I could just focus on handball. I can imagine that there are problems when you are struggling in school, so that you have to juggle those things as well.

Attitude of minimal effort.

Furthermore, the attitude of investing minimal effort for school served as a barrier and was very common among the student-athletes. They were not motivated to increase their effort in school and were satisfied to be an average student. Therefore, they only “jumped as high as needed” and only made sure to fulfill the basic requirements in school. One participant (P3) reported about his situation in school as follows:

Homework... Like doing them properly... I mean, sometimes I do some. But before practice, I really don't manage to do them at all, sometimes. [...] I don't care, because actually I am always paying attention in school. And that's why I don't have a problem with that. I mean, with the homework now in the first year of upper secondary school, it's not that bad anyway. [...] Next year, when we are starting the last two year, I need to step on the gas a bit. [...] But now it is more like... drifting along a bit. No one will have to repeat a school year anyway, that's why.

Missing the old social environment.

Another barrier was the fact that participants were missing their significant others, such as family members, friends, and girlfriend throughout their daily life, for example, in traditions with their parents at home or spending free time activities with their friends. Some students also reported feeling homesick. One participant reported as follows when he missed his father throughout his daily life:

My dad always, he set the alarm clock and so he came into my room every now and then or was shouting that I need to get up. And that didn't happen anymore. And of course, you were also missing that, like the dad who woke you up and stuff.

Conscientiousness.

Another continuum was conscientiousness. Student-athletes, who are experiencing this characteristic as barrier, describe themselves as being sloppy and forgetful. Furthermore, they reported that they take things too easy and were lacking a certain degree of seriousness and discipline as P3 explains:

That being-forgetful thing and stuff like that. That I am sometimes [...] maybe a bit sloppy. That I am taking, like taking everything too easy. And not stressing about everything immediately. [...] I mean, yes, for me, personally, it is positive. But in the end, it can also lead to negative consequences when you took it too easy in the beginning. [...] That was really blocking me a bit, that I didn't care for really anything, I would say.

The consequences of their low level of conscientiousness were affecting every areas of their lives, for example, they forgot to bring important equipment for handball, did not remember

their homework or forgot important appointments. The following example illustrates how the carelessness of the participant (P7) had drastic consequences for his educational pathway:

So, I just missed one exam in History. That was like, you always had to present the doctor's certificate, so that you get a new date where you are allowed to repeat the exam as well. [...] I presented the certificate, my teacher never gave me a repetition exam. And in the end he said that I had never presented the doctor's certificate and that it was a missed exam without an excuse. That means you get directly zero points for it. And me, the idiot, I had lost the notebook for the excuses in which the certificate from the doctor was. Meaning that I could not prove it again.

The missed exam ultimately led to the consequence that the student-athlete did not meet the requirements of the class level and had to repeat the class (see 'Unsuccessful outcomes' for further information). On the other side of the scale, student-athletes made use of high levels of conscientiousness as a resource. They benefited from goal-directed behavior and high self-regulatory competences. This was a highly facilitative resource in managing daily life. One participant (P5) reported how he was taking his homework serious and how he benefited from it:

But for the grade in school itself, they [homework] are quite important, because you simply, when you have done them already and you read them out loud in class, you did already quite good for that lesson. [...] That's why I always set that as a goal for myself, to do my homework. Like doing something and then, from that perspective, it is already sufficient. [...] And then you can be totally relaxed when you go there and everything. [...] That is usually my personal goal, that I do these things properly.

Communication skills.

Another factor were communication skills. A lack of this life skill was characterized by reticence. Student-athletes were reserved and rather kept their problems for themselves instead of asking for help or opening up to others. The following quote explains this, when one student-athlete did not open up and ask for help when needed in case of an injury. He understood it as problematic in his case: “Maybe simply that I didn't say something early enough or something like that. [...] That I simply don't contact other people when I am having a problem” (P5).

Furthermore, they were sceptical towards new people, for example, in school. Therefore, lacking communication skills functioned as a barrier. On the other side of the scale, well pronounced communication skills functioned as an important resource. Student-athletes, who reported to be open-minded, perceived it as facilitative. They were open for new contacts and communication and reported to address problems immediately.

Previous experiences in household duties.

Furthermore, existing or not existing experiences in household skills worked respectively as a resource or a barrier. Lacking these skills, such as being able to prepare a meal on their own or doing the laundry, was a barrier. Student-athletes, who reported to possess these skills already, had learned them before coming to the academy for example, because their parents had full time jobs and they already had to do some things in the household on their own, such as P4, who perceived his previous help in the household as facilitative now:

So, it did help me, because I had to do laundry a lot back home when my parents weren't there. And that's why it wasn't a problem here that you had to do that on your own. Or

preparing your meals on your own, too. [...] Because I also used to do that before practice and that's why... [...] Yes. So, it wasn't new to me.

Time-management.

Another overarching life skill functioning as a barrier or resource was time-management. Again, this skill was developed through existing or the absence previous experiences. Some student-athletes already had to balance high timely demands before the transition to the academy, since they had higher travelling time to their previous handball clubs or had other time-consuming hobbies. Therefore, they had already acquired the ability to plan their time capacity adequately. One student-athlete even had learned time-management in a life skills workshop of an extracurricular school activity. The following example illustrates how one student-athlete managed to study for his final exams in a planned and structured manner:

Yeah, so when I had time, I sat down for half an hour, like over the period of a few weeks, already before. And then all of that went well. Like before practice and that. [...] Actually, that was the advice of our teachers, that we should start with that relatively quickly and shouldn't put it off for too long. [...] So, I stick to that.

On the other hand, lacking time-management skills functioned as a barrier. Usually, these student-athletes did not experience the need for a well-structured daily life before, since their timely demands were modest. Moreover, they were supported by their parents in this aspect, so that they did not experience being highly self-responsible in this aspect.

Managing regeneration and sleep.

Another aspect was the regulation of regeneration and sleep. Student-athletes who were aware of their sleep needs and who were able to satisfy these needs highly benefited from it in the way that they were fit, healthy and concentrated for their daily life like P2:

I actually figured out how much hours of sleep I need so that I am not totally tired the next day. So, I have found out... that I always need to sleep for eight hours. Like when I only sleep 7.5 hours, then I am super tired the next day and almost cannot get up. I really had to figure that out first, where my body is fit.

On the other side, sleep deprivation was a severe barrier. This barrier was highly linked with other barriers, such as time-management and self-regulatory skills. Student-athletes reported for instance that they stay up late in the night because they needed to study late in the night, spend their time rather with other academy residents, or talked to their girlfriend on the phone instead of going to bed. In addition, the external barrier of ineffective use for privacy and free time influenced this barrier as well, since student-athletes reported that it was too loud in their environment to sleep because other residents were talking and laughing in the neighboring rooms. The poor quality of sleep management becomes obvious in the following quote: “Yeah because... either I go to bed early and then there are still people sitting in [roommate]’s room or go to bed really late and can only sleep for five hours or stuff like that” (P7).

In general, these student-athletes did not show awareness for the importance of their sleep and regeneration process. Furthermore, many participants reported that they were napping in the afternoon. Nevertheless, it was not always obvious whether it was either a compensation for bad sleeping routines during the night: “Yeah, like most of the time, I am sleeping in the afternoon... Ah, cause I get into bed usually pretty late” (P4) or part of a healthy regeneration process.

Self-confidence.

Another continuum, which was overarching all areas of the student-athletes' lives, was their level of self-confidence. Student-athletes who experienced low self-confidence as a barrier reported to feel embarrassed, uncomfortable, and ashamed when they had to demonstrate themselves, for example, in presenting results in school or explaining tactics in handball in front of others. A central aspect of this was that they were afraid to make a mistake and rather wanted to hide themselves, since they were not convinced of their competences. The following quote illustrates this barrier (P7):

Yeah, so that I am not really convinced of myself. So, I don't really like to show off. [...] So, I am more likely a bit reserved in that and don't really like to put myself in the spotlight [...] Which is always a bit embarrassing and unpleasant for me, because I am very bad at evaluating myself and also don't want to do that, because maybe it is wrong in the end. [...] I really would like to sink into the ground then. Really, really embarrassing.

Expectations about transitional demands.

Another overarching barrier and resource dealt with the student-athletes' expectations of the transitional demands. Wrong expectations about the new demands lead to a misjudgement of the needed effort in order to manage the challenges of the transition. This was a clear barrier for P7 when it came to his expectations how much effort he would have to invest into school:

It was just like everybody was saying: In eleventh grade you are chilling, in twelfth grade you throw yourself into it and in thirteenth you are only writing exams for A-level. That's what I have thought about it. So, didn't work out that way.

On the other hand, feeling prepared for the transitional demands was a resource, since the student-athletes were expecting high demands and knew about the necessary effort in order to deal with them. This feeling of being well prepared experienced P1 in terms of handball: “I mean, you knew a bit before what is going to happen. You knew the amount of practice before and stuff...”, but not in terms of psychosocial aspects, “But that you are going to miss the people, you didn't know that before. How it is going to be when you start living somewhere else”.

External barriers.

Increased time requirement of handball.

The first external barrier was the increased time requirement and frequency of handball practice and competition. The student-athletes, in particular the players coming straight from their home club, experienced higher amounts of practice sessions during the week. This automatically came along with a higher frequency, so that the breaks between the practice sessions got shorter. This influenced the regeneration and is therefore connected to the internal barrier of great exhaustion and muscle soreness. Furthermore, the higher time requirements of handball automatically came along with less time for school work and free time activities with friends in the afternoon. This was not only the case during the week, but also on the weekends. Obligations in handball on the weekends also impeded visits home, so that student-athletes could not see their parents, friends, and girlfriend so often, like the following quote of one student-athlete shows:

Sometimes you were thinking you could go home for the weekend, but then the coach said... or there was a match and it just timely didn't fit to go back home or wouldn't make sense. Yeah, and that was a bit strange then when you were like 'Uh, now I would really

like to be at home with my parents!' and it simply wasn't possible. And that was new, yeah (P2).

Lacking parental control.

The second external barrier consisted of lacking parental control. Before the transition to the academy, parents supported the student-athletes throughout their daily life by providing external impetus for their daily tasks. To name only a few examples, they were monitoring their process in school and told them to do school work in the afternoon. Furthermore, they organized their time-management, starting in the morning by waking the student-athletes up, making sure they remember important appointments and helping student-athletes to find a balance between school, handball and free time. Because of the absence of their parents, student-athletes were now forced to manage their daily life independently. This barrier was crucial for the student-athletes adaptation process in the academy. They noticed the lacking impetus from their parents clearly when they faced the demand of managing their lifestyle. One student-athlete (P2) explained how the instructions of his mother helped him to stay focused while doing his homework:

So, that she was like 'Switch off the computer while studying!' or 'Don't use your phone while doing your homework!' So, that was usually her part and now you have to do that on your own. And that didn't work that well in the beginning.

Furthermore, he also reported how she helped him to find a balance between school and handball when he was still living back home with his parents:

Yeah, so my mom always used to say, so when there was an exam for example, then my mother or I used to cancel my practice then. And didn't really think about it like 'Uh, now need to go to practice' and stuff. So, you'd rather cancel it and studied for school instead.

Academy's inconsistency between stated values and lived reality in dual career goals.

Another barrier was inconsistency in setting priorities in handball and school from the academy and coaches between stated values and lived reality. On the one hand, the student-athletes were aware of the importance of education, since they got told by numerous people, such as parents, teachers, coaches, and academy staff. They know about the difficulty of the junior-to-senior-transition, which is once again a crucial step in a handball career as in many other sports (Stambulova, Franck, & Weibull, 2012). Additionally, they realize that a handball career is limited in time, so that they cannot make a living out of their sport for a lifetime or that a severe injury can end their career abruptly. Some student-athletes are noticing the importance of their school leaving certificate for their future plans by themselves and are intrinsically motivated to perform well in school. Others feel obliged to perform well in school because they feel the importance of education from the outside. The importance of education is not less stressed by the academy itself. Beside handball and personality, education is one of the three major pillars the academy builds their developmental concept on, as the academy is stating on their homepage: "In [the academy] we lay the foundation for your optimal holistic development. Besides your exceptional educational and athletic training your personal development is part of that, too" (H1). Furthermore, student-athletes reported that the academy pays attention that they are performing well in school and that they attach importance to that. This is stated on their homepage (H1), as the following quote shows how the academy stresses the importance of

education: “The school support and development is a very important component of your developmental concept, because performance starts with your education for us!” Beside this official statement, the student-athletes also notice that in their daily life in the academy. Talking about feeling pressured in handball in school, one student-athlete reported his situation as follows: “In handball, it is coming from myself. And in school, from the academy, too. So, we shouldn't be someone who has to repeat a class. They don't really like that, too” (P3).

On the other hand, student-athletes fear to cancel handball practice because of school reasons, even though the academy is stressing the importance of education itself. The young boys want to avoid the consequences of missing training, namely that they will not be in the starting line-up or will not be given any playing time in the team's upcoming league game at the weekend. They are extremely aware about the consequences. A major part of this inconsistency is the lack of regulations about cancelling practice because of school reasons. They are not given from the coaches or the academy. Different prevailing opinions occurred among the student-athletes whether it was appropriate to miss practice because of school reasons or not. Participants had widely differing experiences and views as the following quotes are illustrating. On the one hand, a student-athlete reported that teachers were supportive and proactive when it came to school matters:

So, when our teachers are communicating with our coaches or whatever and they are telling that things are not going the way as it usually should be... [...] Then the coaches simply say that you shouldn't attend practice and that you should study a bit more, so that it for sure get better (P6).

On the other hand, another student-athlete (P3) reported about a non-cooperating attitude of the coach:

So, like not to practice, because of school, then [coach] is killing us, when we cannot make it to practice because of school. That is not okay. [...] Because he always wants to have everybody around. And because of his, his philosophy is based on 'When not everybody is around, you cannot play handball well!' When not all of us know, what is going on and so on. What the team is doing.

No matter if student-athletes aim to do well in school because of external or internal motivation, the inconsistency of the academy in this matter works as a barrier for them. Student-athletes rather study late in the night after practice when they are facing important exams in school, instead of cancelling practice. In this aspect, there is a need for improvement for the academy and coaches to align their official stated values and their practice in the academy's day-to-day-business. As a consequence, student-athletes accept to neglect other areas of their lives and subordinate them to handball. Ergo, they ignore their (bodily) needs and lose a healthy balance. Wanting the student-athletes to perform well in school while not giving them official rules to work for school is additionally making it more difficult for the boys. The following quote illustrates the situation of a participant during an intense working phase in both, handball and school and how it affects his daily life circle and his mood:

Actually, I am only sitting in my room, studying, sometimes preparing some meals downstairs and at practice. I don't do more than that. Usually, we go somewhere, with a few boys, or something like that. [...] So, in that time, you don't. [...] I get irritable very quickly. That is actually stressful and annoying. [...] Yeah, this constantly sitting in your room and this pressure that you need to be good at both handball and school, actually. That is really a bit annoying. [...] In handball, it is coming from myself. And in school,

from the academy, too. So, we shouldn't be someone who has to repeat a class. They don't really like that, too (P3).

Lacking cooperation with partner schools.

Another barrier is lacking official cooperation with other schools than the official partner school. So far, only one school, the “Gymnasium”, officially announced their cooperation with the academy which comes with several benefits for the student-athletes (see external resources section). However, the other schools the student-athletes are visiting have not become official partner schools so far and the cooperation has not gotten any concrete forms yet.

Parental pressure.

Another barrier consisted in parental pressure. Some student-athletes had the agreement with their parents, that a positive development in school is the precondition to be allowed to live in the academy. Even though no student-athlete experienced to be threatened by their parents directly, they were still worried to not fulfill their parents' requirements and that they had to move back home, if they cannot reach their parents' preconditions. The following quote illustrates this case precisely:

Yeah, because they expected like 'If you wanna go there, then you need to manage it!' And then, our course, yeah, the fear, too, like 'If you don't get good grades, we immediately take you back from the academy!' So, and that is also the thoughts in the back of your mind. So, when you got a four or you got a three³, and it was possible to still be better, than my Mom was immediately like 'What was the exam like' and I was like

³ Grades ranging from 1 as the best to 6 as the poorest in German school system.

'Yeah, it's a four!' and she was like 'Hm, is it probably better if we take you away from there?' and stuff like that. Really a bit difficult in the beginning (P2).

Arguments with old friends, girlfriend.

Furthermore, arguments with friends from their old social environment or with their girlfriend were an external barrier for the academy residents. When it comes to their girlfriend, student-athletes reported that jealousy, no experiences with distance-relationship and the request to see each other more often caused trouble. In terms of friends, arguments were caused by their lack of understanding for the student-athlete's decision to move away or disappointment about decreased contact:

And my old friends were a bit disappointed, so that I changed to this club and moved to another city. Because we couldn't see each other anymore. And because of the time, too, I couldn't contact all of them. Some of them were grouchy then, that I didn't contact them anymore, because I was best friends with them in school (P2).

This external barrier was highly linked with the barrier of increased timely demands in handball, since the student-athletes needed to spend more time in handball there was inevitably less time left for visits home to see old friends or the girlfriend.

Ineffective use of rooms for privacy and free time.

Another barrier were inappropriate rooms for rest and free time. The community kitchen and living room, which was originally intended to be a room where the residents can spend their free time together, is in reality not used for this purpose. Student-athletes are missing their privacy in there, because visitors of the academy have access to that room as well. Therefore,

they rather hang out together in small groups in their rooms. This leads to the fact that residents do not get a proper rest and enough time on their own, since either people are not leaving their room or other people are too loud in the neighboring rooms. The following quote shows how one resident is missing his privacy because of this barrier:

For me, this is too many people here. Too many people always coming in and leaving. It is always loud here. [...] So, like the kitchen, you can't really meet there, like hanging out, chilling. So, that is mostly at our place then... [...] Very difficult to find a quiet moment. [...] We are kind of the living room. [...] It is probably only me, I think. But I am always having the feeling that I cannot come to a rest as I would have needed it here (P7).

Furthermore, the participant also reported how he cannot come to a proper rest in his room, since many domains of his life take part in his room and he is not getting mental space between it.

You are always sitting in the same spot, where you are sleeping as well. And that is making me... And actually, you shouldn't do that. That... I mean, for example you are not supposed to do your homework at the same place... [...] And I think that is actually the point. Because it is always ready to hand in that room. Just get up quickly and you can reach everything and there are always things going on in your head, not really for calming down.

Organization of meals and food supply.

Another crucial barrier was the organization of meals food supply in the academy. For lunch, the academy has a cooperation with a catering service, so that the residents of the

academy ate lunch at its restaurant in the city center. Nevertheless, this was not feasible for all student-athletes, since they are either still in school or the period of time between school and practice did not allow them to go there, which is the case for the following participant (P5):

I am always, except one day, having class until three. That's why I can't even make use of that. And I mean, in that way, it is not their fault, too. But of course it is bad for me, hm! Like from that perspective, I never have anything to eat! [laughs] If I am lucky, someone is taking it away for me. That actually doesn't happen so often at the moment, because nobody wants to do that. And otherwise I have to prepare something, somehow.

Furthermore, student-athletes were complaining about the quality of fresh food in the academy. In the community kitchen, food is provided so that the residents can prepare breakfast, dinner or meals in between on their own in the academy. However, the residents complained about the quality of bread and fresh food (e.g., salad, vegetables). The following quote (P4) illustrates this barrier:

I mean, groceries are done quite often, but we have too much from some things, and not enough from others. Because sometimes we are having like fifty liters of milk or something like that. And uhm, but then there is no salad, I would say. Yes and I am more [...] like really dark bread, like fresh. I prefer that instead of... as if it was deep-frozen before and then it was defrosted again. [...] So, if you buy mozzarella, then it is more expensive. And it is gone after like two hours. And not everybody got a piece of it.

Moreover, it is not always enough for everybody, so that they sometimes do not feel filled. In order to eat properly, student-athletes spend their pocket money to buy food, although the costs for food are included in the monthly rate. The following quote illustrates the situation:

Like in the evenings, sometimes there is only so little food, that you either could eat white bread, I would say, or sometimes only cornflakes, too. And that is annoying [...]. I get the child allowance from my parents since I am sixteen years old. And from that, I spend already fifty euros only for food. So that I can, because sometimes I want to prepare some food for myself in the evening and because sometimes there isn't food that is really filling me, I would say.

Prohibition to have visitors.

The rules of the academy prohibited the residents to have visitors at their place. During the day, they are allowed to receive guests. However, they are not allowed to stay overnight. This hinders the participants to maintain their relationships over distance and their psychosocial development in general. The following quote illustrates this barrier:

Because at the weekends, you are not allowed to have visitors, like overnight. [...] And that's simply what I want to have, like especially when I am playing here. That like friends or my girlfriend can stay overnight. And that's why I want... like next, like after the summer holidays, have an own apartment (P4).

External resources.

Professional training environment.

The first external resource was the professional training environment of the academy. This includes high quality coaches whose feedback and coaching skills were well respected from the players:

Yes, I mean... When there is [coach and legend of the club] as a former professional player standing in front of you and practicing with you trust him and you are totally eager to learn [...] I never doubted that you were taught something wrong.

Furthermore, it includes comprehensive training measures, for example, strength training, which the athlete did not do before. Moreover, the academy offers a training session, which is only provided for the academy players. This practice session focused on the individual handball development of the players. They got the chance to work on their individual leeway and techniques, since the practice content is adapted to the personal needs of each player and detached from the team's training. One student-athlete (P3) explained it as follows:

So that is for the players of the academy, individual training. Where you are only throwing from your position or something like that. [...] Working in strength training area. [...] Only working on yourself. [...] It is optional. But if you can make time for that, everybody is usually going there. And that is helping me, definitely!

Supportive coach-athlete relationship and a mastery-oriented climate.

The second external resource is a supportive coach-athlete relationship. Student-athletes reported that this relationship was built through personal conversations in which the coach showed interested for other parts of their life such as school and private life. Moreover, the coach showed understanding for their opinion and problems and was eager to learn how to talk them and handle their personality. Knowing that the coach was aware of their problems and that they can open up to him, made the players feel comfortable and strengthened the coach-athlete relationship, as one student-athlete reported when talked about personal problems and his performance decrease with him:

My performance had decreased a little. So, and then he talked with me about it. [...] It was kind of releasing, too, I would say. [...] And that really felt good [...] Uh, he just understood it. And uh... talked about it, too. And showed consideration for that, too.

Additionally, the coach created a mastery-oriented climate. By doing so, he stressed the players' personal development and provided them protection and time to adapt to the new demands of their adaptation process. He also expressed his satisfaction with their learning progress. Furthermore, the coach explained his decisions, for example, about the team's line-up during matches. Both of these facts were helpful for the players to be satisfied with themselves, too, when they were struggling with their lowered hierarchy in the handball team, as the following quote shows:

And now you are focusing on having a good development! So, that is also good, that the coach is always telling you that... So, I was not that satisfied with this first year, if I wouldn't have shown such a good development. Probably, I was not that satisfied. But as it is now... I can say that I am totally satisfied (P1).

Moreover, the coach included the players in developing a team tactic, instead of instructing them from above. In team meetings, every team member had to present ideas and observations for their specific playing position and a team tactic is developed in the group then, as the following quote illustrates:

So when we are doing things like we are preparing the next match then we have to, specific... We have to take a look at our opponents. [...] And learn some specific plays and we are also giving proposals. He is actually working with us. He is not telling us what to do, but we are working on that together (P7).

Cooperation with partner school.

Another important resource is the cooperation with a partner school. So far, only the “Gymnasium” the student-athletes were attending became officially a partner school. The residents of the academy were supported in the following ways: The school provides a contact teacher, who is in charge for the communication with the academy and who is a contact person for the student-athletes. This teacher is in close contact with the manager of the academy, who is in charge to monitor the student-athletes’ progress in school and reports about their marks. Furthermore, the student-athletes did not have to attend the PE class of their school and had to attend the academy training instead. The schedule was adapted to this. It is stated on the school’s homepage: “Thereby, the framework conditions for the elite players of the youth teams are enhanced, who obtain the possibility from the school to get an additional practice session in the mornings” (H2). Moreover, the school provided various small arrangements and obligingness throughout everyday school life, such as leave of absence for handball reasons or modified deadlines for handing in projects. Furthermore, the school also expressed the will to enhance the cooperation. Together with the academy they are aiming to achieve the official status of a “partner school of elite sport”:

“The [school] and the [handball club] are striving together to become the second partner school of elite sport in [federal state]. This title comes along with an extensive support by the Ministry of Education and has only been awarded to one school in [other city in federal state] so far. Every „Gymnasium“-level student of the handball boarding school will visit the [school] in the future.”

Academy as interface between school and handball.

Another resource was that the academy functions as an interface between the handball club and the school. This was mainly achieved through the position of the academy manager, whose task it is to monitor the student-athletes' process in school. He is in charge to coordinate the student-athletes' process in school and is the contact person for them, if they are having any difficulties. In general, there is a great overlap between important positions of officials in the club and the academy, for example, the coach of the participants is also the sports director. Furthermore, the organization of the junior section of the handball club mainly meets in the office of the academy, so that they meet on daily basis for exchange. Most important for the student-athletes is the position of the academy manager.

Private lessons.

Furthermore, the academy also provided the organization of private lessons if needed. They are collaborating with a company who are providing extra support for educational matters. If a student-athlete needs to catch up some learning content, they can address the manager of the academy, who is organizing a private lesson teacher for them. The student-athletes who made use of this resource reported about good results:

So when I told them I am not doing so well here and there or chemistry, they tried to contact a teacher for private lessons and let him come here one, two times a week. So, that was actually good for the school part (P2).

Support from significant others.

Another external resource was the support from significant others such as parents and siblings, friends, and girlfriends. The support was very diverse. One crucial fact is the emotional support when the student-athletes were facing problems. They discussed them with the persons of preference and appreciated their encouragement. They perceived it as facilitative in order to find a solution, reframe the situation and to let go of their anger. Student-athletes also felt supported when parents or friends attend their matches. They also asked for help for technical questions, for example, asking their mother about doing the laundry or how to continue in school. The following quote shows how one participant (P6) was supported from his parents in various ways:

Yeah, like my parents always used to support me. [...] Like when I had problems, [...] I could call my parents. [...] Yeah, simply like with the washing machine now. How to wash what, with how many degrees. Or when it didn't go well, like if you were having little difficulties in school somehow... Be that you, yeah, a written exam failed a little. That you, I was always able to talk to my parents. [...] They were giving me some tips, too. That I simply should talk to my teachers. That I should talk to [manager of the academy] or my coach so that everything with, yeah, so that everything keeps going well.

Familial atmosphere in the academy.

Another important external resource was the familial atmosphere in the academy. Student-athletes called the social environment they had created with their roommates a second family, which is characterized by trust and support. They enjoy being in the company of very good or even their best friends and did not experience a competitive or solitary atmosphere. The

community also helped them to face some of the demands and overcome some barriers in the beginning. Many of the residents spend the majority of their free time in the academy or at least with their friends from the academy, as one participant (P2) reported:

I felt totally comfortable here! Like in a second family, too. It is literally like a family here. Yeah, so that was very positive, too. [...] Yeah, so that you are doing stuff together in private life, meeting each other and here in the academy like fooling around and having fun together, like playing tricks on someone sometimes.

Location of the academy.

Furthermore, the location of the academy was an external resource. School and training facilities were in close proximity, so that student-athletes can reach them in walking distance. The short ways save time during the day, so that student-athletes have more time left for private life and school work: "...this connection, that everything is one spot, in that way... That we need five minutes to school and two minutes to the gym is very good, too" (P5).

Coping strategies.

Asking for help and discussing problems.

A major coping strategy was asking other people for help and discussing problems. This strategy was used on all four levels and resulted in very effective and satisfying problem solving. In doing so, the student-athletes made use of the internal resource of their communication skills and openness. Furthermore, they contacted people from their psychosocial environment, who are external resources. The contacted person differed depending on the topic or personal preferences. As an example, student-athletes asked their parents or older residents of the academy for help

when they were facing demands in household duties. In terms of school, student-athletes addressed teachers, classmates, their parents, or the manager of the academy for help.

Improving planning and preparation of daily life.

Another coping strategy was the improvement of planning and preparing of daily life. This includes small but effective reminders such as setting an alarm clock or taking notes to structure the day, being punctual, or remembering important appointments. Residents of the academy also helped each other to get up in the morning or reminding them of things to bring for school or for practice. Furthermore, student-athletes applied the strategy of trial-and-error to find out the required time for daily processes (for example, morning routine to get ready for school, sleep rhythm).

Or I actually figured out how much hours of sleep I need so that I am not totally tired the next day. So, I have found out... That I always need to sleep for eight hours. Like when I only sleep 7.5 hours, then I am super tired the next day and almost cannot get up. I really had to figure that out first, where my body is fit. Like also the time in the morning, how much time do I need in the bathroom, going downstairs for food, preparing my bread, getting ready. So, I got up at 7, that was too late or so. So, and then during the first weeks, that's what you found out, when you were on your own, how much time you need.

Relaxation and refocusing.

Another coping strategy applied by the student-athletes was relaxation and refocusing. This means that they were occupying themselves with activities that lower their level of arousal, help them to let go of tension, and to draw the attention to objects outside of the transitional

demands. The possibilities for that were diverse and student-athletes had personal preferences. Mentioned relaxation and refocusing strategies were spending time with friends at the academy, spending time with friends outside of the handball context in order to have different topics of conversation or playing games console. One student-athlete even brought his piano to the academy and used to play it for relaxation:

It was also a nice way for change in between, a nice compensation for balance. And it still is. So, when I am totally stressed or when I don't feel like handball I am playing a bit piano or so... That is just a nice distraction, to come down and stuff like that (P1).

Longer breaks for relaxation and refocusing were used for regular visits home, which were mainly used to spend the time with the social environment of their place of origin (family, girlfriend, old friends from school and handball).

Positive reframing of the current situation.

Furthermore, the student-athletes used the coping strategy of positive reframing of a current situation. By doing so, they gave a difficult situation a new meaning and tried to reinterpret it from another perspective. This helped in finding a new and more positive mindset for the challenging situation. Participants reported about using this strategy when they were unsatisfied with their performance or their playing time in handball. Another context to apply this strategy was the difficulty to combine living in two places and being homesick. Supportive external resources were the coach, friends or parents, who helped the student-athletes to observe the problem from another point of view. The following quote illustrates, how a student-athlete reframed the situation when he was questioning himself because of lowered hierarchy in handball, coming along with the feeling of being “second choice”:

I questioned myself why it was actually like that. If it was because of my, because of my practice. [...] So, I came to the point, when I was questioning myself, like 'Be happy that you are already playing for [the club]. And that you are not living with your parents anymore and don't play at home anymore, but instead can play with better player here in [city]!' That kind of made me feel positive. That I said to myself 'You have already come quite far, just be satisfied what are you having here and now. Your time or your chance will come that you are playing in the starting team or so.

Increasing effort.

Another way to cope with the transitional demands was increasing their effort. This includes dedicating more time to aspects considered important and valuable and working harder for them. On athletic level, increasing effort was practiced by doing an extra practice session outside of the usual training schedule. In terms of school, setting the goal to always do homework and work hard to realize this goal was part of increasing the effort. Furthermore, it also included paying attention in school and participating actively during the lessons instead of not following. The following quote illustrates how one student-athlete increased his effort when he set a goal:

When I have the ambition to manage to graduate from school, so then I develop the ambition to study, that I study this and that much and do much more. Handball, too, that I develop the ambition to work even more than the others and try to pull myself together to do an extra fitness practice or go for a run, like motivation coming from myself (P2).

Avoiding negative experiences.

The last coping strategy is avoidance of negative experiences. Instead of searching actively for a solution to manage the present demand, student-athletes ignored negative situations and symptoms of an approaching crisis or did not take those indicators seriously. The most severe case where this coping strategy was applied and led to a negative transition outcome was an injured player who ignored the pain until he was not able to play anymore and had to pause for nine months (see outcomes section). Talking about this situation, the student-athlete (P5) explained his behavior as follows:

So, I always used to be more that type of person you is like 'Yeah, that's just what it is!' And kind of always swallow that. [...] And yeah, maybe that was a small problem then. [...] I didn't considered it as necessary at that time. For others it would maybe be... Or it would have been necessary maybe. [...] I didn't see that for myself.

The transition outcomes.

The outcome of the transition process provides information about the quality of participants' coping with the transitional demands by making use of the available internal and external resources and by overcoming potential external and internal barriers. Both, indicators of positive and negative outcomes were identified within the group of the student-athletes. The following section describes on the one hand the core factors of a successful transition and on the other hand negative examples. Dominant barriers and resources are highlighted in order to understand the outcome more explicitly. Furthermore, this section provides information about the duration of the adaptation process.

Successful outcomes and core factors for positive adaptation.

If student-athletes find an effective way for coping, they were able to overcome potential barriers and resources were outweighing. The transition can be labeled as successful, since they are able to maintain physical and mental health and well-being and continue with a career in performance handball. Two core factors contributed to the fact that the student-athletes experienced a positive transition outcome and managed to handle their adaptation process effectively.

First core factor for adaptation.

The first core factor is the acquisition of the ability to manage all parts of the participants' new stage of life successfully. This factor deals with a retrospective-oriented perspective. It takes into account how far the participants have come since their transition into the academy until the moment of the interview. The basis for finding an overall balance is the successful adaptation and positive achievements on every single level of the student-athletes' development. On athletic level, participants' positive adaptation is confirmed by the team's success. Together, they were able to win their league at the end of the season. This enabled them to participate in German championships playoffs of the B juniors. They successfully completed the group phase and made their way to the finals, where they lost with only one goal. Therefore, winning Vice German championship was a remarkable achievement on athletic level. Furthermore, two participants were nominated for the German junior national team. On educational level, major achievements were graduating from secondary school successfully. Further positive outcomes were the promotion to the next grade. On psychosocial level, the positive outcomes consisted of the establishment of a stable social network in the new living environment. Participants reported that

they managed to make friends mainly within the academy and handball context, but also in school. One participant even reported that he felt totally adapted at the academy, when he noticed he felt homesick for the academy when being on a visit home at his parents' place. Furthermore, they learned who their "real friends" were, so who they can rely on, since they had to experience that their group of friends became smaller when they were starting to set different priorities in their live. On psychological level, the results of the adaptation process were noticeable as well: Participants reported that they had reached a higher level of maturity. They noticed this by themselves, but also got feedback from their families and friends about it. A higher level of maturity is characterized in this study by a higher level of self-responsible living, learning good manners, taking more responsible decisions instead of acting childish and stubborn, being aware and speaking up for their own needs, opinions, and admitting their own fault in failure. The entirety of succeeding on all four levels contributes to the first core factor of an overall successful outcome. In total, participants reported that they felt adapted when everything went well and they were able to manage the different areas.

Second core factor for adaptation.

The second core factor is the expression of the motivation to continue by formulating goals for the future. This factor deals with a future-oriented perspective and takes into account if the participants are satisfied with their current life situation and want to follow this idea for the forthcoming time. Again, goals or ideas could be identified on the different levels of their development. In general, participants rather mentioned short- and mid-term than long-term goals. They more likely named concrete goals until the time where they finish school and reach the end of junior handball. For the majority of the players this radical change will happen in the same

summer. For the time after this, they could describe their future in not more than vague ideas. On athletic level, participants formulated the goal to make it to the A juniors team and to continue on high performance level in the club until the junior-to-senior transition. As in many other sports, this change represents an extremely difficult transition. The participants were aware of that, too. If they will be given the chance to continue on professional or semi-professional they would like to keep on playing handball. Nevertheless, they had realistic expectations about that. Therefore, they were aware on the importance of their education and formulated clear goals about their graduation from school. As with handball, the majority did not have concrete plans for their future pathway after graduating from school. All things considered, participants were able to state a priority about their future after finishing school and junior handball, if they either wanted to focus on handball or vocation. On psychosocial level, no concrete short- or long-term goals were expressed. On psychological level, three participants told about their plans to move out from the academy after the school year. Considering their development, this fact can be seen as the expression to take the next step of an independent living and participants feel prepared for that. It reflects again, that student-athletes gained a higher level of maturity and developed the will to continue. Nevertheless, it also reflects that the student-athletes, who express the wish to move out in their own apartment, do not want to be hindered by some external barriers anymore.

Unsuccessful outcomes.

If student-athletes were not able to find an effective way for coping, they were hindered by potential barriers and resources were not strong enough to manage the transitional demands. The ineffective coping strategies led into a crisis transition. Nevertheless, the transition outcome cannot directly be labeled as negative. If the participants is supported by an effective crisis

coping intervention, the chance to continue with successfully persists. The crisis can then be understood as a detour. In contrast, if the participant does not experience a crisis intervention or this intervention is unsuccessful, the outcome of the transition is negative. The results are “costs” of failure, such as drop-out and decreased level of mental and physical well-being and health. In the present study, one participant clearly showed symptoms of a crisis transition and all levels of his development were affected. However, at the moment of writing this Master’s thesis the full outcome could not be identified yet. In two further cases, failure on one specific level of development led to a minor crisis transition, which could be redirected into successful coping yet. These three cases are described in the following section.

Injury.

In one case, a student-athlete experienced a severe injury. The outstanding barrier in this case were lacking communication skills, since the student-athlete did not tell coaches about the pain he already had for a while. He kept on playing handball, but ignored the already existing slight pain, which can be identified as the coping strategy of avoiding negative experiences. At one point, the pain got more severe and the student-athlete had to stop playing. After the doctor’s diagnosis he had to pause for nine months. This case illustrates how a barrier and an inappropriate coping style can lead to physical complaints and the student-athlete’s development came compulsory to a stop. The lacking communication skills led to a carryover of the physical symptoms and the injury got more severe for the athlete. Nevertheless, the student-athlete had fully recovered and is able to play with the team again.

Insufficient performance in school.

In another case, the affected student-athlete showed insufficient performance in school and did not reach the required class level at the end of the school year. As a result, he had to repeat the grade. In this case, a few barriers led to the negative outcome. In the beginning and throughout the school year, the internal barriers of having wrong expectations of the transitional demands and showing the attitude of minimal effort were hindering the student-athlete and led to a decrease of his grades. In the final phase of the school year, other barriers became obvious. The student athlete missed two exams because of illness. However, these exams were crucial for his final grade in the subject. He reported that he was definitely not aware being at risk to repeat the class and no communication between him, the teachers, his parents, or the academy took place. The school (e.g., the teachers) did not give a warning at all. In addition, he lost the medical certificate from the doctor and could not prove that he missed the exams because of illness, which is an indicator of a low level of conscientiousness. Therefore, he was not allowed to repeat them and got zero points for it. The resulting final grades of these subjects in the year's class report were decisive for the insufficient performance in school. The message that he did not reach the class level came out of nowhere for him and his parents.

In hindsight, the student-athlete reported that he learned from this failure in the way that he understood that taking self-responsibility is imperative for his development. Furthermore, he admits his own fault in this case. He also had the impression, that the structures of communication between student-athletes, school, and academy have been improved after his parents criticized this incident.

Crisis transition.

The third example shows a crisis transition of a student-athlete, which led to a decrease of physical and mental health. The ineffective coping on one level also influenced other levels of his development in the academy. The origin of the crisis was on psychosocial level. The student-athlete could not overcome the barrier of missing his old social environment. He felt homesick and missed mainly his friends and his girlfriend. In addition, the increased timely demands in handball did not allow him to go on visits home on the weekend for a longer period, so that he could see his old social environment. On the other hand, because of the academy's regulations he was also not allowed to have guest for overnight stays, so that he could have had visitors at the weekends. The following costs of ineffective coping were weight loss, high blood pressure, social withdrawal from his new place of living, and reduced performance and focus in handball.

The student-athlete reported the situation got better. He talked with his coach about it, who supported him to get better and find a solution for the situation. Furthermore, his parents supported him by realizing visits home by car. As already stated above, the final outcome of his transition is not clear so far and depends on whether the student-athlete makes it to the team of the higher age group after the season.

Duration of adaptation process.

The duration of the complete adaptation process highly differed between the individuals, ranging from three to nine months. Participants stated to feel adapted mostly around specific holidays, such as the holidays in fall, Christmas holidays or in spring. However, the adaptation did not happen as a linear process, but more likely took place step-by-step. As student-athletes moved into the academy during the summer holidays, they first met their new social environment

in handball and their roommates in the academy. During this time, they faced the first demands in handball and were challenged to make friends in their new living environment. Despite the new demands at the academy, student-athletes described this time as being on a “big class trip”. Beside the handball practice, they had much free time, which they were enjoying. It appeared to be most important, that they got into contact with their new friends very quickly and good bonds between the boys developed. This first phase after moving into the academy appeared to be relatively easy and the new friendship became already an important resource for the second phase after their start in the academy during the holidays. The second phase of the adaptation started, when school began after the summer break. Student-athletes explained that they were confronted with “real life” now and all of the transition’s demands needed to be managed. Their feeling of being fully adapted at the academy and being comfortable there depended on whether they felt in control of their own lives, all areas were going well, and fit.

Discussion

General Discussion

First of all, the study supports the underlying theoretical frameworks. All components of the athletic career transition model could be identified in the explored transition process. The same applies to the holistic athletic career model. All developmental levels existed in the student-athletes' lives, even though the fifth layer (finances) were not included in this research. Furthermore, the interrelatedness of the different domains became once again obvious. The crisis transition of one participant illustrated very clearly how ineffective coping in one area influences the overall outcome of the transitional process. Moreover, the study supports the findings of Elbe, Szymanski, and Beckmann (2005) and Baron-Thiene and Alfermann (2015), that stressed the importance of personal characteristics of self-optimization, which were considered as crucial factors of volition and included competences that are needed to reach a goal. In this study, comparable results were obtained. Aspects such as self-regulatory behavior and goal-directedness, time- and self-management and the development of internal motivation also played an important role in the current adaptation process and draws through all components of the transition (e.g., demands, internal resources and barriers, coping styles). The relevance of internal factors were also found by Stambulova, Engström, Franck, Linnér, and Lindahl (2015), who explored a comparable transition process in Sweden in a greater extent, but with similar results. Furthermore, the Swedish and the present study again come to similar results when finding a satisfying balance between school, sport and other parts of the student-athletes' lives was identified as crux for a successful adaptation at the elite sport academies. Additionally, parts of the present results are also in line with research, which took in fact place in youth elite sport, but was detached from the context of dual career transitions or the transition into residential

training centers. For instance, a supportive coach-athlete relationship and the creation of a master-oriented climate was revealed as positively correlated with sport continuation in contrast to drop-out before (Sarrazin, Vallerand, Guillet, Pelletier, & Cury, 2002). Generally, this study contributes to the current research trends of dual career transitions and the cultural praxis paradigm, in the way that it provides an in-depth description of a dual career transition into an elite sport academy in the socio-cultural context of Germany.

Limitations

One limitation is the temporal structure of the study. This research was designed to explore the adaptation process at the academy in short-term retrospect. Beside the advantage that transitional experiences are still vivid and not distorted by time lag, this research design also comes along with the contrary disadvantage. By interviewing the participants only with a short time period after their transition, the study can inevitably examine only the short-term or not more than mid-term outcomes of the transition. Nevertheless, long-term outcomes could be an important indicator about the transition and adaptation, since those processes can take even years, as proposed by Poczwadowski, Diehl, O'Neil, Cote, and Haberl (2014). So far, no student-athlete had dropped out from handball and the participants who experienced a crisis transition were able to recover. Nevertheless, at the latest when student-athletes will graduate from school and face the junior-to-senior transition more informative outcomes could be revealed. Furthermore, another limitation consists in the methodology of the analysis. Even though a thematic analysis in a deductive way (top-down manner) provides various benefits, such as clear criteria for orientation when carrying out the analysis, it can also constrain the analytic process. In the present study, this was the case when the transition process according to

the athletic career transition model was analyzed. When understanding the student-athletes' adaptation process as unique stories in the specific environment of the academy,

Implications for the Academy

In order to enhance the dual career environment for the student-athletes, the following section describes implications for the academy deriving from this study. Generally, the academy itself is able to make a change to eliminate several external barriers. When it comes to internal barriers, the academy can provide assistance for the young student-athletes so that they can overcome their personal barriers and meet the demands of their transitional process. Overall, three areas were identified in which the academy can improve their environment, working structures and daily processes in order to increase the living situation for the student-athletes (see appendix G).

The first area deals with the enhancement of the dual career conditions. A key factor of this is to find a solution for the prioritizing of school and handball in order to align the officially stated developmental goals with the lived principles in the reality. Furthermore, clear regulations help the student-athletes to overcome the contradictory dilemma of high demands in school and handball on the one side but limited timely, mental and physical capacity on the other side. Since intensive phases which require more dedication are existing in both areas, school and handball, it seems reasonable to make a planning with alternating focus on school and handball. Clear regulations need to be set up for cancelling practice respectively the amount of practice in times of intensive school periods. Fine goals from the student-athlete in both areas, school and handball, should be expressed and considered in this planning. On the other hand, coaches and teachers must clearly express their expectations and requirements, which work as reference

points for the student-athletes. By doing so, coaches learn to provide their players freedom to follow their goals in school. On the other hand, student-athletes learn to accept the consequences in handball, when they are currently focusing on education. Moreover, they receive help to estimate the transitional demands and find the appropriate motivation and necessary effort in order to meet these demands. In regular meetings, the process needs to be evaluated, discussed, and adapted. Another factor to enhance the dual career conditions is to expand the collaboration with the schools, the academy residents are attending, so that not only the “Gymnasium” is the official partner school, but also other schools are increasing their cooperation. Furthermore, the establishment of a studying area in the academy building could contribute to studying conditions. It could be helpful, if student-athletes are provided a room which is solely intended for school work and studying and where they can study together in phases of intense school periods, do their homework or invite class mates when work on group projects is needed. By doing so, they get a change of location and their bedroom can remain to function as a place for rest, regeneration, privacy, free time and inviting friends.

The second area in which the academy can enhance the living condition for its residents is the provision of support for the student-athletes’ personal development of life skills and self-responsibility. This part targets the internal barriers of the young talents. By providing help to overcome these obstacles, the student-athletes can develop their individual skills and start using it as internal resources which are needed to for a successful adaptation. This area is virtually predestined for sport psychological support. In a series of workshops the student-athletes are educated about the importance of specific skills and bio-psycho-social backgrounds of health. Most importantly, they are introduced and encouraged to apply these skills. The learning process could be monitored and discussed in weekly sessions, so that individual adaptations can be made.

Highly important topics appeared to be the regulation of sleep, regeneration and relaxation, time-management, self-regulatory behavior and self-directedness (including e.g., goal-setting, self-discipline, motivation), communication skills, nutrition, and injury prevention.

The third area in which the academy can increase their support is the general enhancement of living conditions in the academy to maintain residents' well-being and health. First of all, this includes the improvement of the nutritional supply. The academy needs to find a solution to enhance the quality of fresh food and to guarantee that the student-athletes can make use of the lunch of the caterer. In this case it might be useful to get the expertise from a nutritionist, so that the logistics of food supply is enhanced and enough healthy food can be provided for the student-athletes. Moreover, the academy can introduce a monitoring system to observe the residents' stress level and physical and mental exhaustion. Beside the personal contact and observation of coaches, a regular completed scale could support this process as a tool. Suitable scales could be the "Erholungs-Belastungs-Fragebogen" (EBF, Kellman & Kallus, 2000), which is a German scale to assess the current level of recovery and stress, or a shorter version scale such as the "Kurzsкала zur Erfassung von Erholung und Beanspruchung im Sport" (KEB; English version: "Short Recovery and Stress Scale for Sport", SRSS; Hitzschke et al., 2015). Furthermore, the academy is advised to reconsider the prohibition of visitors who are staying overnight. If student-athletes had the chance to receive guests, e.g., at the weekends, this would benefit to the social relationships of the residents.

Future Research Directions

First of all, future research work should examine the transition experiences of a broader and more diverse group of participants in Germany. More sports, especially individual sports,

need to be included in future studies. Furthermore, female adolescent athletes might perceive and experience the considered transition process differently. Therefore, female athletes need to be taken into account in the future, too. Moreover, this study was conducted with residents of an independent academy, the context of official elite sport training centers of the DOSB could be of future interest, too. Furthermore, in order to understand the whole transition process and especially the outcomes, longitudinal studies will be helpful to contribute for the understanding of dual career transitions and its long-term outcomes. Moreover, this study is again evidence for the importance of internal factors of a successful adaptation process in sport academies. However, it also demonstrates important factors of the participants' environment, which can function either as barriers or resources in the adaptation process. These findings should be followed up and proceeded in more extended research. The shift from the individuals-perspective to an environmental perspective can be guided by the holistic ecological perspective (e.g., Henriksen, Stambulova, & Roessler, 2011). This new research trend provides information about factors of successful talent promotion environments. The approach can be applied in the future to not only understand characteristics of successful talent promotion environments in general, but also to analyze dual career environments of student-athletes in particular. A comparison between independent or public funded academies will be of interest. Moreover, differences between countries and cultures can be revealed.

Conclusion

The present study aimed firstly to investigate the multi-level context and pathways through the transition to a handball academy for male student-athletes in Germany. The identified pathways on athletic, educational, psychosocial, and psychological level reflect the

socio-cultural context of Germany. Furthermore, they help to classify the student-athletes developmental level. The transition's demands of the second objective can be better understood with the background of their developmental stage.

Secondly, the study explored the student-athletes' transition experiences including their demands, resources, barriers, and coping strategies. A central demand was the improvement of life skills, more specifically managing an independent lifestyle. A key role played the personal characteristics or existing skills of time-management, the management of sleep and regeneration, expectations about the transitional demands, conscientiousness and the attitude of investing minimal effort. Depending on their manifestation, they functioned as barriers respectively as resources. From an external perspective the absence of parental control and the academy's inconsistency between stated values and lived reality in dual career goals were debilitating and worked as the most crucial barrier for the student-athletes. On the other side, a supportive coach-athlete relationship was an important resource. This demand, resources and barriers were overarching for all areas in the student-athletes' life and had great importance for handball, school and their private life. Two core factors were identified to manifest student-athletes' successful transition outcome, which were the acquisition of the ability to manage all parts of the participants' new stage of life successfully and the expression of the motivation to continue by formulating goals for the future.

Recommendations for the academy to enhance the living situation for the participants by reducing external barriers and providing support for the development of internal resources are formulated. Future research work should aim to provide insight into the socio-cultural context of student-athletes in dual career transitions in other countries and in long-term retrospect.

Additionally, participants in future studies should be more diverse, including also female participants and student-athletes from other sports.

References

- Alfermann, D., & Stambulova, N. (2007). Career transitions and career termination. In G. Tenenbaum and R. C. Eklund (Eds.), *Handbook of Sport Psychology* (3rd ed., pp.712-736). New York: Wiley. doi:10.1002/9781118270011.ch32
- Baron-Thiene, A., & Alfermann, D. (2015). Personal characteristics as predictors for dual career dropout versus continuation – A prospective study of adolescent athletes from German elite sport schools. *Psychology of Sport and Exercise, 21*, 42-49.
doi:10.1016/j.psychsport.2015.04.006
- Bloom, B.S. (1985). *Developing talent in young people*. New York: Ballantine Books.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. doi:10.1191/1478088706qp063oa
- Côté, J., Baker, J., & Abernethy, B. (2007). Practice and play in the development of sport expertise. In G. Tenenbaum and R.C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp.184-202). New York: Wiley. doi:10.1002/9781118270011.ch8
- Danish, S. J., & Nellen, V. C. (1997). New roles for sport psychologists: Teaching life skills through sport to at-risk youth. *Quest, 49*(1), 100-113.
doi:10.1080/00336297.1997.10484226

Elbe, A.-M., Szymanski, B., & Beckmann, J. (2005). The development of volition in young elite athletes. *Psychology of Sport and Exercise*, 6, 559-569.

doi:10.1016/j.psychsport.2004.07.004

EU guidelines on dual careers of athletes: Recommended policy actions in support of dual careers in high-performance sport. (2012). Retrieved 2016-03-22 from

http://ec.europa.eu/sport/library/documents/dual-career-guidelines-final_en.pdf.

Get in touch- Altes Gymnasium auf dem Weg zur Partnerschule des Leistungssports ("Get in touch- The 'Altes Gymnasium' on the way to become a partner school of elite sports").

(2016). Retrieved 2016-06-17 from

<http://www.altesgym.flensburg.de/?section=getintouch>.

Goudas, M. (2010). Prologue: A review of life skills teaching in sport and physical education.

Hellenic Journal of Psychology, 7, 241-258.

Henriksen, K., Stambulova, N., & Roessler, K. K. (2011). Riding the wave of an expert: A successful talent development environment in kayaking. *Sport Psychologist*, 25(3), 341-

362. doi:10.1123/tsp.25.3.341

Hitzschke, B., Koelling, S., Ferrauti, A., Meyer, T., Pfeiffer, M., & Kellmann, M. (2015).

Development of the Short Recovery and Stress Scale for Sports (SRS). *Zeitschrift Für Sportpsychologie*, 22(4), 146-161. doi:10.1026/1612-5010/a000150

Kellmann, M. & Kallus, K.W. (2000). Der Erholungs-Belastungs-Fragebogen für Sportler.

Manual. Frankfurt am Main.

Poczwadowski, A., Diehl, B., O'Neil, A., Cote, T., & Haberl, P. (2014). Successful transitions to the Olympic Training Center, Colorado Springs: A mixed-method exploration with six resident-athletes. *Journal of Applied Sport Psychology*, 26(1), 33-51.

doi:10.1080/10413200.2013.773950

Schinke, R. J., Stambulova, N., Trepanier D., & Oghene, O. (2015). Psychological support for the Canadian Olympic Boxing Team in meta-transitions through the National Team Program. *International Journal of Sport and Exercise Psychology*, 13(1), 74-89.

doi:10.1080/1612197X.2014.959982

Schulsystem ('School System') (2015). Retrieved 2016-07-20 from <https://www.schleswig-holstein.de/DE/Themen/S/schulsystem.html>.

Sarrazin, P., Vallerand, R., Guillet, E., Pelletier, L., & Cury, F. (2002). Motivation and dropout in female handballers: A 21-month prospective study. *European Journal of Social Psychology*, 32(3), 395-418. doi:10.1002/ejsp.98

Stambulova, N. & Ryba, T. (2014). A critical review of career research and assistance through the cultural lens: Towards cultural praxis of athletes' careers. *International Review of Sport and Exercise Psychology* 7, 1-17. doi:10.1080/1750984X.2013.851727

Stambulova, N. (2003). Symptoms of a crisis-transition: A grounded theory study. In: N. Hassmén (Ed.), *SIPF Yearbook 2003* (pp. 97-109). Örebro: Örebro University Press.

Stambulova, N. (2009). Talent development in sport: A career transitions perspective. In E. Tsung-Min Hung, R. Lidor, & D. Hackfort (Eds.), *Psychology of sport excellence* (pp. 63-74). Morgantown, WV: Fitness Information Technology.

Stambulova, N. (2014). Career transitions. In R.C. Eklund & G. Tenenbaum (Eds.), *Encyclopedia of sport and exercise psychology* (pp. 110-115). Thousand Oaks, CA: Sage. doi:10.4135/9781483332222.n44

Stambulova, N. (2016a). A look at the future of qualitative methodology through the prism of athlete career research. In B. Smith & A. Sparks (Eds.) *Handbook on qualitative research methods in sport and exercise*. (pp. 450-461). London, UK: Routledge.

Stambulova, N. (2016b). Athletes' transitions in sport and life: Positioning new research trends within existing system of athlete career knowledge. In R. J. Schinke, K. McGannon, & B. Smith (Eds.). *The Routledge international handbook of sport psychology* (pp. 519-535). New York, NY: Routledge. doi:10.4324/9781315777054

Stambulova, N. B., & Wylleman, P. (2015). Special Issue: Dual career development and transitions. *Psychology of Sport and Exercise*, *21*, 1-134.

doi:10.1016/j.psychsport.2015.05.003

Stambulova, N., & Ryba T. V. (2013). Setting the bar: Towards cultural praxis of athletes' careers. In N. Stambulova and T. V. Ryba (Eds.), *Athletes' careers across cultures*. (pp. 235-254). New York, NY: Routledge.

Stambulova, N., Engström, C., Franck, A., Linnér, L., & Lindahl, K. (2014). Searching for an optimal balance: Dual career experiences of Swedish adolescent athletes. *Psychology of Sport and Exercise*, *21*, 4-14. doi:10.1016/j.psychsport.2014.08.009

Stambulova, N., Franck, A., & Weibull, F. (2012). Assessment of the transition from junior-to-senior sports in Swedish athletes. *International Journal of Sport and Exercise Psychology*, *2*, 79–95. doi:10.1080/1612197X.2012.645136

Unsere Verantwortung (“Our responsibility”). (n.d.). Retrieved 2016-06-17 from <http://www.flensburg-akademie.de/de/internat/talentkonzept.html>.

Verkooijen, K.T., van Hove, P., & Dik, G. (2012). Athletic identity and well-being among young talented athletes who live at a Dutch elite sport center. *Journal of Applied Sport Psychology*, *24*, 106–113. doi:10.1080/10413200.2011.633153

Wylleman, P., & Lavallee, D. (2004). A developmental perspective on transitions faced by athletes. In M. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 507-527). Morgantown, WV: Fitness Information Technology.

Wylleman, P., Reints, A., & De Knop, P. (2013). A developmental and holistic perspective on athletic career development. In P. Sotiaradou, & V. De Bosscher (Eds.), *Managing high performance sport* (pp. 159-182). New York, NY: Routledge.

Zehn-Punkte-Programm des DOSB zur Dualen Karriere. (2013). Retrieved 2016-03-22 from https://www.dosb.de/fileadmin/fm-dsb/Zehn-Punkte-Programm_Duale_Karriere.pdf

Appendices

Appendix A

Informed Consent

Informed consent form for participation in a research study

1. Title of the study

Can I make it? A qualitative study about young talented handball players coping with their transition into a residential training center.

2. Aim of the study

The aim of this study is to gain insight about the youth athletes' perspective of the transition into a residential training center: Understanding possible barriers and resources which influence the ability to cope with the demands of moving to a residential training center as teenager and therefore the outcome of a transition from a young athlete's perspective are the purpose of the study.

3. Description of research activities

You are asked to take part in one face-to-face interview with the researcher in which you will be asked to share your experiences on moving to the residential training center “Flensburg Akademie”. It is anticipated that the interview will last for approximately 60 minutes.

The interview will be audio taped with a smart phone or a Dictaphone. You will be given a copy of your transcribed interview to verify whether the data are complete and accurate. A second interview may be required when changes need to be applied.

4. Risks/ discomfort involved

As you are informed this interview is about your transition into to the residential training center in Flensburg. This may elicit painful memories. If you feel uncomfortable at any point during this interview, you may decide not to answer the asked question or completely withdraw from the interview.

5. Expected impact

The field of career transitions is a well-studied area in sport psychology. Nevertheless, only slight research work has been done on the transition to elite sport settings/ residential training center. Even though it is common practice of developing new talents, no research examines this aspect for youth athletes. Understanding possible sources and barriers in coping with this transition contributes to explain successful or unsuccessful transition outcomes. Therefore, this study may provide valuable implications not only for clubs, federations and residential training centers but also for coaches, sport psychologists and caregivers how to create a facilitative environment and support the young athlete in the transition phase in the future.

6. Dissemination of results

To ensure anonymity, a pseudonym will be used to protect your identity. In addition, you will be given a copy of the transcribed interview to verify the accuracy of the given information.

7. Further Information

Do not hesitate to ask questions regarding the aim of this study or the implementation of study design. If you have any doubts or questions, please do ask for clarifications.

8. Freedom of consent

You are a volunteer participant. You are free to withdraw your consent now or later. In case you decide to withdraw from this research, please contact me at levke@gmx.de and any (recorded) data related to you will be deleted.

Participant's declaration

I read this form and I understand the procedures involved. I agree to participate in this study

Date: __/__/__

[Name and
signature of participant]

[Name and
signature of researcher]

Appendix B

Interview Guide

Dual career experiences of German student-athletes at a handball academy

PART I: Transition and Adaptation Experiences

1. Past: Before transition

1. Can you tell me what your very first memories in handball are and what do your first experiences in handball looked like?
2. A couple of years have passed by since then. You kept on training and competing and you made progress in your handball game. Can you describe what was playing handball like in your old handball environment in the time before you moved to the academy, e.g. your club and your team, your coach and your teammates? How was playing handball there for you?
3. And can you tell me about your old school? What was it like to go to school back home?
4. Talking about your private life at home, what did you like to do in your free time beside school and handball?
5. Talking about your social environment, can you describe the most important persons at home and the people you liked to spend your time with?
6. And what was it like to juggle all these parts of your life when you were living at home?

2. Past: After transition/ adaptation to academy

7. So, then you decided to move here to the academy and came to Flensburg. Can you tell me about the first time here in the academy, e.g. what have you experienced in the first days and how did your new life look like?
8. Moving to the academy also meant to change school. So, how was school going here in Flensburg? Can you describe, what it was like to go to your new school?
9. And how was handball going? Can you describe how training and competing here in Flensburg was for you?
10. Can you also describe who the most important people in your new handball environment were for you?
11. You told me that xxx (e.g. parents, best friends, siblings) were the most important people

in your life back at home. How has that developed here in the academy, e.g. contact to old and new friends? Who were the most important people since you live here?

12. And when you are not spending your time with school or handball, what do you like to do here in your free time in Flensburg?
13. We have talked about several changes in in the different areas in your life now. I remember from the first weeks and months when I moved away from my parents house and lived on my own at the academy, that it was also difficult at times. Some of the new things in my life really challenged me and I was never confronted with them before. Because of the transition many things had changed or were completely different. Sometimes I experienced just small problems, sometimes big problems occurred. Do you also experienced that? What were the things that challenged in your first time?
14. As elite athlete and student, you always also have kind of the double load: Both, your sport and school, needs to be managed. Plus, you also have a private life, including maybe other hobbies and friends. For me, this was always a crucial part in my daily life in those days. How did you perceive that, to juggle school and handball and private life?
15. Could you explain what is more important for you, school or handball? Do you focus one of them more than the other?
16. If we have to face some struggles and challenges in life, there are things we have within ourselves which helps us to figure out the problem. That could be special characteristics and traits, skills, a special attitude or motivation, a personal approach how we handle stress. Could you describe what did you personally helped you to cope with xxx (demand perceived by student-athlete)?
17. And sometimes it is exactly the other way round: We are stopping ourselves and getting in the way with some of our own characteristics. How where you probably hindering yourself?
18. Only for second year after transition:
What do you think, how have the experiences from the first influenced you in your second year here in the academy, e.g. did you do anything differently?

3. Present: living in the academy

19. So, we talked about your time before you moved to the academy and the time since you moved in. A lot of things happened and changed. You have come quite a long way. Now, I would like to know, how is the situation at the moment? Can you describe what your current situation is now? For example, did you get used to some things and handled them easier in the last time? Or did they probably also get worse?
20. Can you describe how you finally faced the problems? What is your solution to cope

with these challenges now?

4. Future

21. What do you take with you from the first/ the last two year/s in the academy?

PART II: Environmental Aspects

22. What would you say, helps you here in the academy to balance handball and school?
Could you describe what was facilitative in this environment to find a good balance?

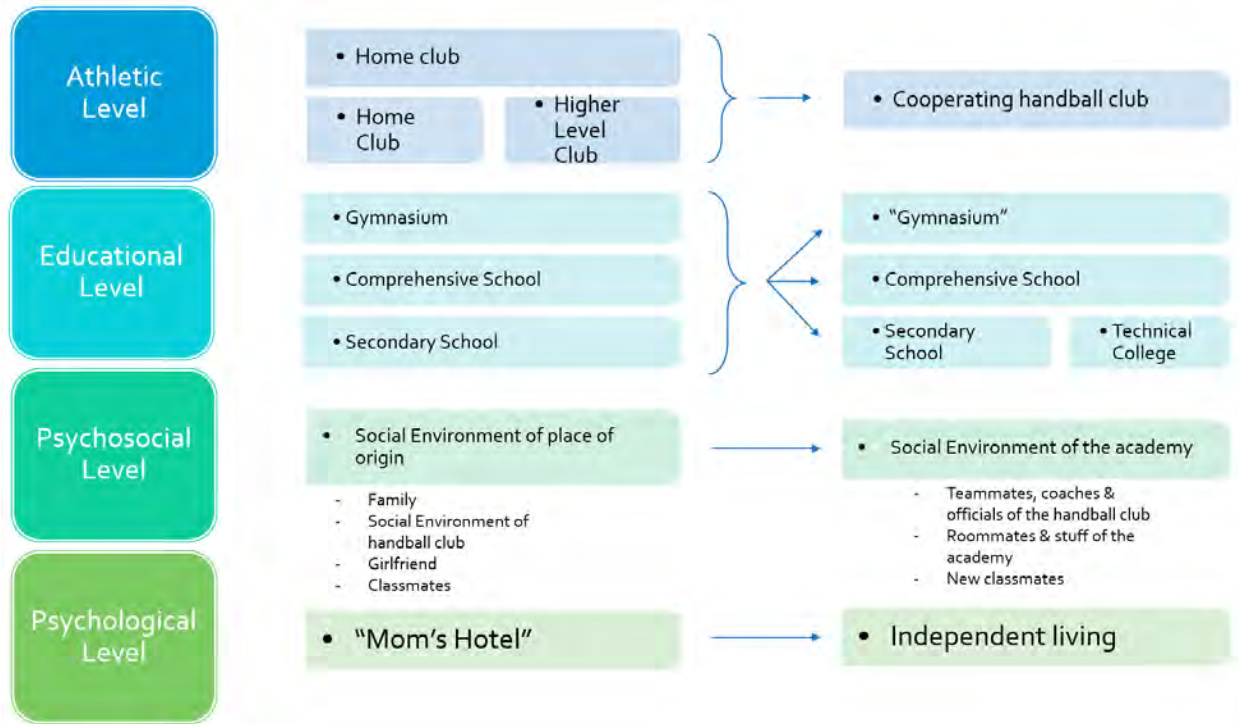
23. And on the other hand, were there also some things that were hindering you in finding a good balance? Could you describe, what was not so optimal here?

24. What needs to be different from your point of view? How would it be, if it was optimal?

25. We have come quite far and I thank you very much for sharing all these experiences with me. This was very interesting for me. I would like to ask, if there is anything you consider important that we have not talked about yet, e.g. some special experiences, feelings or thoughts you like to share?

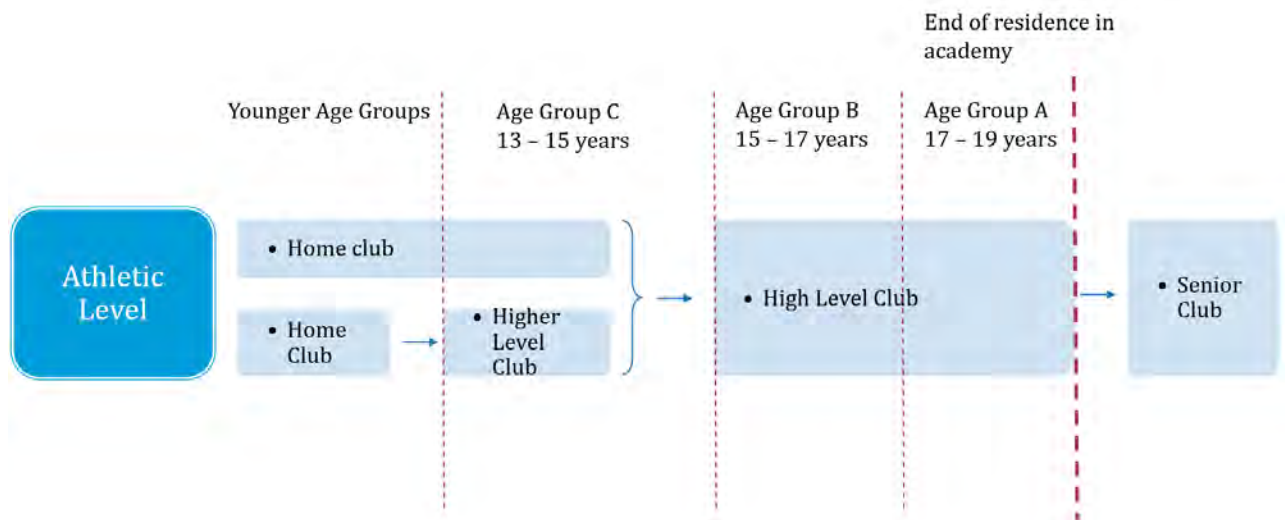
Appendix C

Multilevel Context of the Transition to the Handball Academy



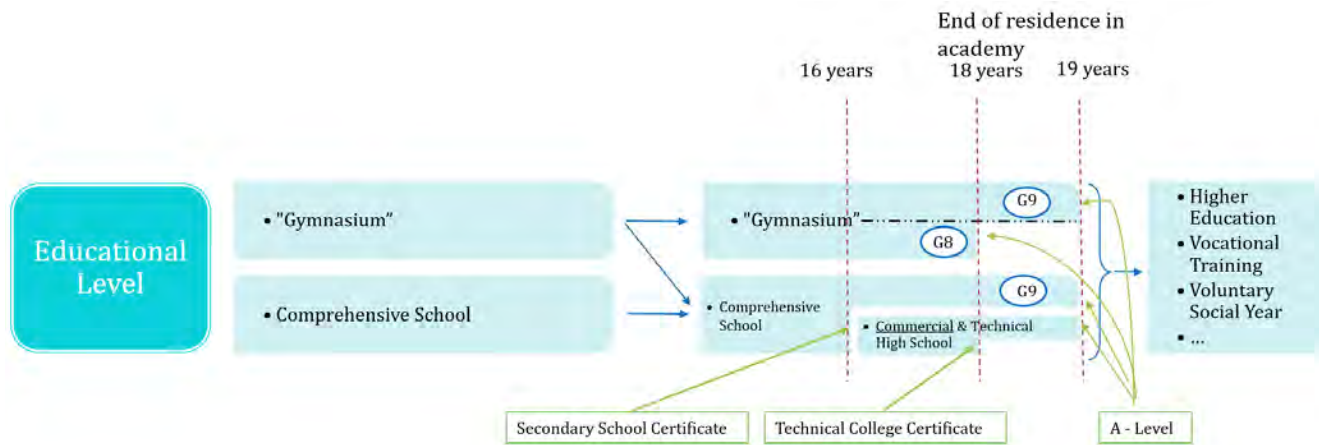
Appendix D

The Participants' Athletic Pathways



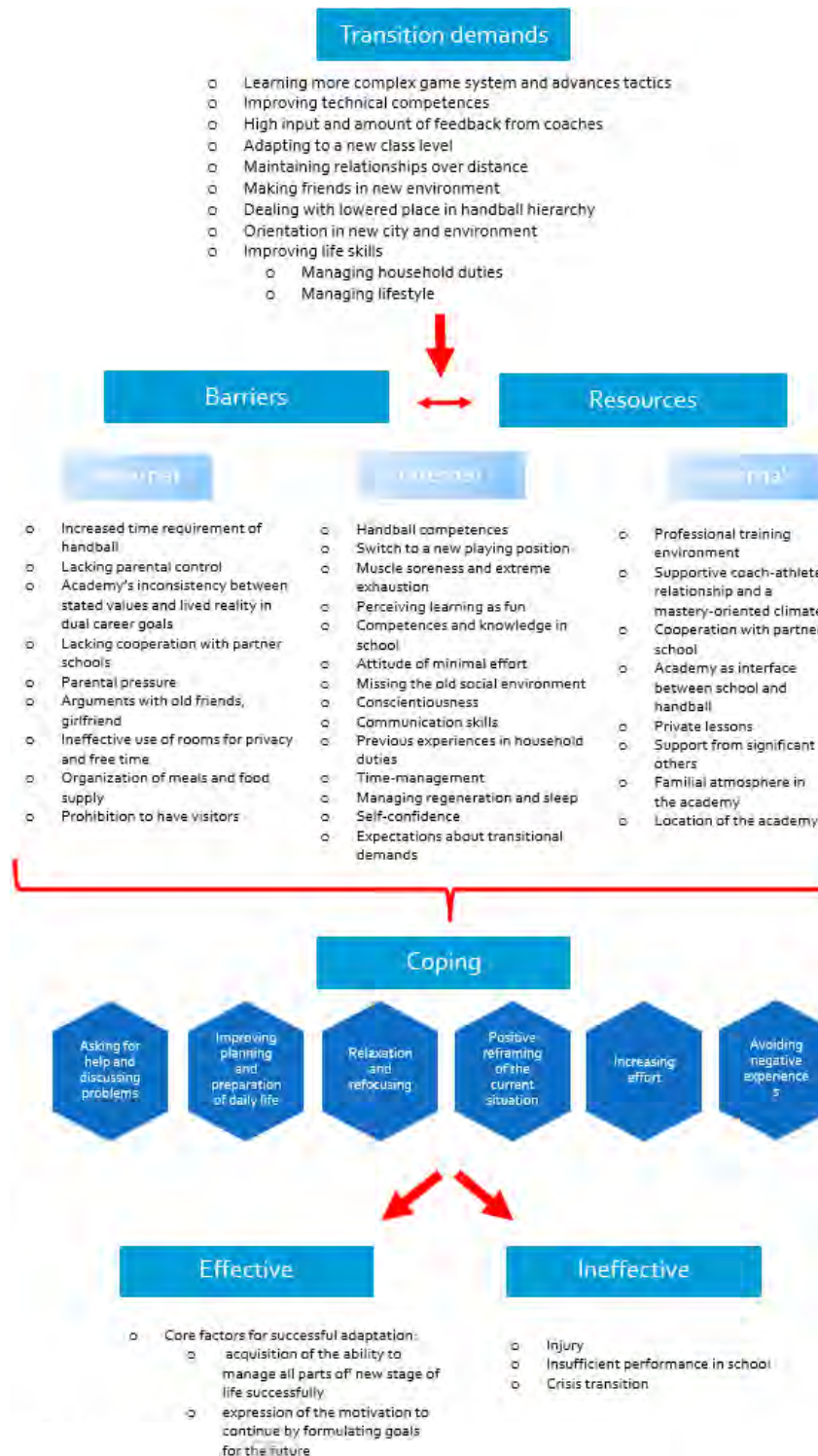
Appendix E

The Participants' Educational Pathways



Appendix F

The Participants' Dual Career Transition Process



Appendix G

Recommendations for the Academy

