



November 22-23, 2017  
at Halmstad University

**Nordic Sport Science Conference:**  
'The Double-Edged Sword of Sport: Health  
Promotion Versus Unhealthy Environments'

**Nordisk idrottsvetenskaplig konferens:**  
Idrott i spänningsfältet mellan hälsa och ohälsa



Title: Proceedings of the Nordic Sport Science Conference – ‘The Double-Edged Sword of Sport: Health Promotion Versus Unhealthy Environments’

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## Greetings

### Welcome to the Nordic Sport Science Conference November 22–23, 2017 at Halmstad University: 'The Double-Edged Sword of Sport: Health Promotion Versus Unhealthy Environments'

This conference is aimed at everyone interested in sports science research and development in the fields of education, psychology, health, sport, society and adapted physical activity. The theme for the conference is 'The Double-Edged Sword of Sport: Health Promotion Versus Unhealthy Environments'. It is a theme that can be highlighted from several scientific perspectives, focusing on the sphere of sport, the health of young and elderly people and also people with special needs. Furthermore all the opportunities that sport can open and the changes it can bring.

Collaboration is another keyword as the conference is organized in collaboration between SVEBI (Swedish Association for Behavioural and Social Sciences Sports Research), SIPF (Swedish Sports Psychological Association), SNAFA (Swedish Network for Adapted Physical Activity) and Halmstad University. The focus is on the interaction between different research disciplines and hopefully new forms of collaboration between athletes, academics and sports practitioners. We hope for interesting and exciting days with current research and application as well as rewarding meetings with colleagues in the field of sports science.

*Urban Johnson, Head of Scientific Committee*

*Krister Hertting, Secretary General, Organizing Committee*

### Välkommen till Nordisk idrottsvetenskaplig konferens, 22–23 november 2017 vid Högskolan i Halmstad: Idrott i spänningsfältet mellan hälsa och ohälsa – en konferens för dig som är intresserad av idrottsvetenskaplig forskning och utveckling inom pedagogik, psykologi, hälsa, idrott, anpassad fysisk aktivitet och samhälle

Temat för konferensen är idrotten i spänningsfältet mellan hälsa och ohälsa. Vi belyser temat ur flera vetenskapliga perspektiv och sätter fokus på idrottens spännvidd – yngres och äldres hälsa, hälsa hos personer med särskilda behov, samt hur idrott kan ge nya möjligheter och leda till förändring.

Konferensen är ett samarbete mellan Högskolan i Halmstad och SVEBI (Svensk förening för beteende- och samhällsvetenskaplig idrottsforskning), SIPF (Svensk idrottspsykologisk förening) och SNAFA (Svenskt nätverk för anpassad fysisk aktivitet). I fokus står samverkan mellan olika forskningsdiscipliner och förhoppningsvis nya former av samarbete mellan olika idrottsintressenter, akademi och praktiker inom idrott.

Vi hoppas på intressanta och utvecklande dagar med aktuell forskning och tillämpning samt givande möten med kollegor inom det idrottsvetenskapliga området.

*Urban Johnson, Vetenskapligt ansvarig*

*Krister Hertting, Organisatoriskt ansvarig*

## Purpose of the conference

**Nordic Sport Science Conference November 22–23, 2017, ‘The Double-Edged Sword of Sport: Health Promotion Versus Unhealthy Environments’**

**Official hosts of the conference: Halmstad University and Halland Sports Academy**

This conference is aimed at everyone interested in sports science research and development in the fields of education, psychology, health, sport, society and adapted physical activity. The theme for the conference is ‘The Double-Edged Sword of Sport: Health Promotion Versus Unhealthy Environments’. It is a theme that can be highlighted from several scientific perspectives, focusing on the sphere of sport, the health of young and elderly people and also people with special needs. Furthermore all the opportunities that sport can open and the changes it can bring.

Collaboration is another keyword as the conference is organized in collaboration between SVEBI (Swedish Association for Behavioural and Social Sciences Sports Research), SIPF (Swedish Sports Psychological Association), SNAFA (Swedish Network for Adapted Physical Activity), Halmstad University and organized by Halland Sport Academy. The focus is on the interaction between different research disciplines and hopefully new forms of collaboration between athletes, academics and sports practitioners. We hope for interesting and exciting days with current research and application as well as rewarding meetings with colleagues in the field of sports science.

The official language of the Conference is English and the Nordic languages.

## Scientific committee

Chair: Urban Johnson, Prof

Linn Håman, PhD., Håkan Larsson, Prof., Natalia Stambulova, Prof., Andreas Ivarsson, PhD, Lars Kristén, PhD., Kristina Ziegert, Prof., Krister Hertting, PhD.

## Organizing committee

Secretary General: Krister Herrting, Associate Prof.

Eva-Lotta Ekström, Ulrika Hult, Sofia Ryan Hägerling, Urban Johnson, Lars Kristén, Rasmus Tornberg, Ann-Christin Sollerhed.

## Reviewers

Henrik Gustafsson, Karlstad University; Andreas Ivarsson, Halmstad University; Kajsa Jerlinder, Gävle University; Urban Johnson, Halmstad University; Lars Kristén, Halmstad University; Håkan Larsson, The Swedish School of Sport and Health Sciences; Jan Lexell, Lund University; Xavier Sanchez, Halmstad University; Natalia Stambulova, Halmstad University; Kim Wickman, Umeå University; Kristina Ziegert, Halmstad University.

## Halland Sports Academy



Halland Sports Academy (HiA) is a platform for research, development, education and collaboration with the local community around Halmstad University. One of HiA's overarching aims is to create meetings, engagement and interaction between academia, organizations, companies and other stakeholders who want to develop sports in Halland.

Halland Sports Academy wants to:

- Increase the attraction of sports, for instance at Halmstad University and in the local community
- Act as a platform for meetings between the academy and other sectors, focusing on development issues in sport
- Through collaboration, develop sport-related research and education at the University
- Spread knowledge about current research in sport
- Cover regional, national and international sports related issues in the field of sport

## Hallands idrottsakademi

Hallands idrottsakademi (HiA) är en samverkans-plattform för forskning, utveckling, utbildning och samverkan med omgivande samhället vid Högskolan i Halmstad. En grundläggande tanke med HiA är att skapa gränsöverskridande möten mellan akademi, organisationer, företag och andra intressenter som vill utveckla idrotten i Halland.

Hallands Idrottsakademi vill:

- Öka attraktionskraften för idrott, bland annat vid Högskolan i Halmstad och i det omgivande samhället
- Fungera som en plattform för möten mellan akademi och andra verksamheter med fokus på utvecklingsfrågor inom idrotten
- Genom samverkan utveckla idrottsrelaterad forskning och utbildning vid Högskolan i Halmstad
- Sprida kunskap om aktuell forskning inom idrottsområdet
- Bevaka regionala, nationella och internationella frågor inom idrottsområdet

Ansvarig: Urban Johnson, email: [urban.johnson@hh.se](mailto:urban.johnson@hh.se)



## Halmstad University – often called The Innovation Driven University



Halmstad University was founded in 1983 and has from the beginning been characterised as forward-thinking and cross-border.

The University conducts education and research within a broad field, but three profile areas are prominent:

- Innovation Sciences
- Information Technology
- Health and Lifestyle

These areas make a base for the University's activities and it is also in these that the University offers education on a postgraduate level.

### Education for the future

The University is known for its popular and reality-based programmes and small student groups. Today, the University has around 9 100 students (5 000 full-time students) and offers around 50 programmes and 130 courses within several subject fields (2016).

### Research for innovation

The research is internationally renowned and is carried out in close collaboration with players outside the University. A lot of the research is also done within the University. The University is – as one of five universities in Sweden – appointed a so-called KK environment by the Knowledge Foundation.

### Collaboration for development

The University actively participates in social development through collaboration with both industry and the public sector. The University's programmes are repeatedly ranked among the best in the country in collaborating with employers. In Confederation of Swedish Enterprise's latest survey, the Pre-school Teacher Education was named the best in the country and three of the top ten educations, in all categories, were at the University.

### Four Schools and five research environments

Today, the University has around 600 employees. There are 53 Professors and 95 doctoral students (2016).

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# **Wednesday November 22 2017**

10:00-11:00	Registration and Coffee		Visionen
11:00-11:15	Welcome to the conference: Anders Nelson, Deputy Vice-Chancellor of the university		The Baertling Hall
11:15-12:00	Key note I: Professor Paul Wylleman, Vrije University Brussels: Supporting elite athletes' development and mental health		The Baertling Hall
12:00-13:00	Lunch at Restaurant Spiro		
13:00-14:30	<b>Symposium I Behavioral and Social Science Research in Sport:</b> Physical Education and Health in School. Susanne Lundvall, GIH: Children's physical activity: a continuation of school-sports-health (SIH). Per Jørgensen, University of Southern Denmark, 200 years of Danish Physical Education and Health in school. Magnus Brolin, Sörby School Örebro: Perspectives on health	<b>Symposium I Sport psychology:</b> Elite athletes' vocational development: European perspectives. Moderator: Natalia Stambulova, Halmstad University.	<b>Symposium I Adapted physical activity:</b> Sport on equal terms. Physical activity for people with spinal cord injury: developing and implementing evidence-based exercise guidelines Keynote: Jan van der Scheer, Loughborough University. Moderator: Jan Lexell. Representatives from the Nordic countries.
14:30-15:00	Poster presentations I		
15:00-15:15	Knowledge market and Coffee		
15:15-16:00	Key note II: Professor Shayke Hutzler, Zinman College of Physical Education and Sport Sciences at the Wingate Institute, Netanya, Israel: Experiential Learning: Changing practitioners' perceived self-efficacy toward inclusion through discourse and experiential adapted physical activities		
16:10-16:55	<b>Paper presentations I:</b> Behavioral and Social Science Research in Sport	<b>Paper presentations I:</b> Sport psychology	<b>Paper presentations I:</b> Adapted physical activity
17:05-17:50	<b>Paper presentations II:</b> Behavioral and Social Science Research in Sport and Adapted physical activity	<b>Paper presentations II:</b> Sport psychology: Athletes transition in sport and life. "5 slides in 5 minutes".	<b>Paper presentations II:</b> Adapted physical activity
18:00	<b>Annual meeting SVEBI</b>	<b>Sport psychology meetings:</b> - Role of Sport psychological associations in creating growth and stimulating networking within sports, federations and academia: experiences from Sweden and Denmark, SIPP and DIFO (open meeting) - Dutch Olympic Committee and Swedish Olympic Committee (closed meeting).	
19:30	<b>Conference dinner at Grand Hotel.</b> Toastmaster: Daniel Sanjay		



08:30-09:00	Registration for participants only participating day 2		<b>Visionen</b>
09:00-09:45	<b>Key note III:</b> Associate professor Solfrid Bratland-Sanda, University College of Southeast Norway: Physical activity, exercise, sports and eating disorders - the double-edged sword		<b>The Baertling Hall</b>
09:45-10:15	<b>Poster presentations II</b>		<b>Visionen</b>
10:15-10:30	Knowledge market and Coffee		
10:30-12:00	<b>Paper presentations III:</b> Behavioral and Social Science Research in Sport and Sport psychology	<b>Symposium II Sport psychology:</b> Psychological perspectives on sport injuries. Moderator: Urban Johnson, Halmstad University	<b>Workshop I Adapted physical activity:</b> Sports on equal terms. Workshops at University Sports Hall. Three parallel workshops.
12:00-13:00	Lunch at Restaurant Spiro		
13:00-13:40	<b>Symposium III Behavioral and Social Science Research in Sport:</b> Invited speaker: Carolina Lundé, Gothenburg University: Sport and exercise – good or bad for the body image?	<b>Symposium III Sport psychology:</b> A hidden challenge: Mental Health problems in elite sports Moderator: Cecilia Åkesdotter, The Swedish School of Sport and Health Sciences	<b>Workshop II Adapted physical activity:</b> Sports on equal terms Workshop at University Sports Hall
13:45-14:15	<b>Symposium IV Behavioral and Social Science Research in Sport:</b> Award for best Master thesis.	<b>Symposium III Sport psychology:</b> The symposium A hidden challenge: Mental Health problems in elite sports continues.	<b>Symposium IV Adapted physical activity:</b> Invited speaker: Ingegerd Ericsson, Malmö University: The MUGI (Motor skills development as Ground for Learning) model for motor skills training for all children: a nine year intervention in the Bunkeflo project.
14:15-14:45	Knowledge market and Coffee		<b>Visionen</b>
14:45-15:30	<b>Key note IV:</b> Professor Francesco Botré, Sapienza University of Rome and WADA: The ages of doping		<b>The Baertling Hall</b>
15:30-16:00	<b>Panel discussion:</b> The Double Edged Sword of Sport: Health Promoting vs. Unhealthy Environments <b>Chair:</b> Natalia Stambulova		
16:00	Closure of the conference.		

Scientific Program  
Wednesday November 22 2017

**11:15-12:00 Keynote I: Paul Wylleman:** Supporting elite athletes' development and mental health  
**Chair:** Urban Johnson (Hallands' Sports Academy)  
**Venue:** The Baertling Hall

**13:00-14:30 Symposium I**

Symposium I: Wigforss	Symposium I: Baertling	Symposium I: Halda
<p><b>Physical Education and Health in School</b></p> <p>Susanne Lundvall, The Swedish School of Sport and Health Sciences (GIH): Children's physical activity: a continuation of school-sports-health (SIH).</p> <p>Per Jörgensen, University of Southern Denmark: 200 years of Danish Physical Education and Health in school.</p> <p>Magnus Brolin, Sörby School Örebro: Perspectives on health</p>	<p><b>Elite athletes' vocational development: European perspectives.</b></p> <p>Moderator: Natalia Stambulova, Halmstad University</p> <p>Simon Defruyt, Vrije Universiteit &amp; Koen De Brandt, Vrije Universiteit: Support for active and former athletes' employability and employment: An overview of career support services in Europe</p> <p>Paul Wylleman, Vrije Universiteit: Be a Winner In elite Sport and Employment before and after athletic Retirement (B-WISER): the project description.</p> <p>Paul Wylleman, Vrije Universiteit, Sasa Cecic-Erpic, University of Lubljana, Miquel Torregrossa, Univesitat Autònoma de Barcelona, Babett Lobinger, German Sport University, Francesca Vitali, University of Verona, Kent Lindahl, Swedish Sports Confederation, Johan Ekengren, Halmstad University: Supporting vocational development and employment of active and former elite athletes: Panel discussion on career support services from a national perspective</p> <p>Natalia Stambulova (panel-discussion)</p>	<p><b>Sports on equal terms</b></p> <p>Physical activity for people with spinal cord injury: developing and implementing evidence-based exercise guidelines</p> <p>Moderator: Jan Lexell. Representatives from the Nordic countries.</p> <p>Keynote: Jan van der Scheer, Loughborough University</p> <p>Co-author: Peter Harrison Centre for Disability Sport, National Centre for Sport and Exercise Medicine, School for Sports, Exercise and Health Sciences, Loughborough University, United Kingdom. School of Health and Exercise Sciences, iCORD, University of British Columbia, Kelowna BC, Canada.</p>

## 14:30–15:00 Poster presentations I, Visionen

1. **Peter Carlman & Carina Vikström**, Karlstads universitet: Idrottsföreningars arbete med nyanlända – ledares delade upplevelser
2. **Maria Howding**, Malmö högskola: Idrottslärarstudenters berättelser om möten med friluftsliv
3. **Pernilla Hedström, Christian Augustsson & Göran Patriksson**, Karlstads universitet: Hinder och möjligheter för hälsofrämjande arbete i skolan
4. **Ann-Christin Sollerhed & Gerth Hedov**, Högskolan Kristianstad: Physical activity among children with Down's Syndrome
5. **Julia Söderström Malmborg**, Halmstad University, Ann Bremander, Halmstad University/Lund University, **Stefan Bergman**, University of Gothenburg/Lund University/Halmstad University & **Charlotte Olsson**, Halmstad University: Pain and its association to health, orthorexia nervosa, sports performance, and physical maturity in sport school adolescents
6. **Linn Håman**, Halmstad University, **Eva-Carin Lindgren**, University of Gothenburg/Halmstad University & **Hillevi Prell**, University of Gothenburg: The challenges in responding to unhealthy eating and exercise behaviours among clients: From personal trainers' views
7. **Erwin Apitzsch**, Sveriges Akademikers IF: Aktiv Student. Från fysiskt inaktiv till regelbunden motionär med studentidrott.
8. **Joni Kuokkanen, Jan-Erik Romar**, Åbo Akademi & **Mirja Hirvensalo**, Jyväskylä Universitet: Att kombinera elitidrott med studier - idrottande högstadielävers akademiska självuppfattning och skolen-gagemang
9. **Matilda Lindberg**, Malmö högskola: Nycirkussvenska och kroppen i rörelse
10. **Jaenes, J.C**, Universidad Pablo de Olivide, **Hertting, K.**, Halmstad University, **Lara-Bercial, S, Ron-gen, F.**, Leeds Beckett University, **Nogueira, A.**, Universidad de Leon, **Lucidi, F.**, Università La Sapienza di Roma, **Garcia-Mas, A.**, Ponseti, X., Universidad de las Islas Baleares & **Cruz, J.**, Universidad Autono-ma Barcelona: Agents changing the game to positive personal development in European youth sport.
11. **Jan Böröy**, Högskolan i Halmstad: Samband hos svenska idrottare för dispositionell mindfulness, emo-tionsreglering och idrottspsykologiska färdigheter
12. **Martin Samuelsson**, Karolinska Institutet, **Nathan Weiss**, Karolinska Institutet, **Ulrika Tranaeus**, GIH/Karolinska Institutet, **Urban Johnson**, Halmstad University, **Eva Skillgate**, Karolinska Institutet: Self evaluated psychological factors related to sport injuries amongst adolescent female soccer players; preliminary results.
13. **Annett Victoria Stornæs**, Norwegian School of Sports Sciences, **Jorunn Sundgot-Borgen, Jan H. Rosenvinge**, UiT –The Arctic University of Norway: High performance standards and expectations experienced by talented youth athletes, performing artists, and regular lower secondary school students
14. **Jenny Back**, Halmstad University: Who becomes exercise dependent? Exploring psychological risk fac-tors for exercise dependence through a person centred approach
15. **Markus B.T. Nyström, Andreas Stenling, Emma Sjöström, Gregory Neely**, Umeå University, **Philip Lindner**, Stockholm University, **Peter Hassmén**, Umeå University/Southern Cross University, **Gerhard Andersson**, Linköping University/Karolinska Institutet, **Christopher Martell**, University of Wisconsin & **Per Carlbring**, Stockholm University: Behavioral activation versus physical activity via the internet: a randomized controlled trial
16. **Diana Réklaitienė & Jurate Pozėriėnė**, Lithuanian Sports University: How the environment pro-motes active lifestyle of elderly with disabilities
17. **Sepandarmaz Mashregi**, Malmö Högskola: Participatory Activist Research: Afghan Youth and Physical Education
18. **Taeho Kim**, Bielefeld University, Hyunsik Park, Dongguk University **Gyeongju & Thomas Schack**, Bielefeld University: The role of mental representation: mental representation structure of athletes has a positive relationship with cognitive performance

**15:15-16:00 Keynote II: Shayke Hutzler:** Experiential Learning: Changing practitioners' perceived self-efficacy toward inclusion through discourse and experiential adapted physical activities  
**Chair:** Lars Kristén (SNAFA)  
**Venue:** The Baertling Hall

**16:10-16:55 Paper presentations I**

<b>Time</b>	<b>Paper presentations I: Wigforss</b> Chair: Linn Håman	<b>Paper presentations I: Baertling</b> Chair: Andreas Ivarsson	<b>Paper presentations I: Halda</b> Chair: Pelle B. Pelters
16:10-16:25	Aage Radman, Norges Idretts høyskole/Malmö högskola: Hur ser mångfalden ut i det svenska supporterlandskapet? En genus- och etnicitetsblick på fotbollssupportrar.	Xavier Sanchez, Halmstad University: Studying self-regulation and pressure performance dynamically: A pilot-study	Elisabeth Apelmo, Malmö högskola: Bodies, (Dis)ability and Gender in Curriculums and Course Literature in Physical Education Teacher Training
16:25-16:40	Karin Kittelman-Fleisner, Höskolan Väst, Peter Korp, Göteborg University & Eva-Carin Lindgren, Göteborg University/Halmstad University: Sport as an arena for integration? Discourses in open sport activities for newly arrived children and teenagers.	Paul Davis, Umeå University, Louise Davis, Umeå University, Ralph Appleby, Northumbria University, Henrik Gustafsson, Karlstad University: Exploring the Social Side of Burnout in Sport: The implications of interpersonal relationships on athletes' perceptions, performance, and exhaustion.	Marte Bentzen, Anders Farholm & Marit Sörensen, The Norwegian School of Sport Sciences: Lessons learned from a physical activity intervention study in psychiatric treatment: Perspectives from patients, staff, and leaders.
16:40-16:55	Krister Hertting, Halmstad University, Stefan Wagnsson, Karlstad University: Swedish youth soccer coaches perceptions of stress: a gender perspective	Hedda Bernsten, Norwegian School of Sport Sciences: Transfer Problems in Coach Education: Bridging the gap between theory and application through multimedia learning	Lars Kristén, Bodil Klingvall, Mikael Ring, Halmstad University, Anders Ericsson, Camilla Schough, Eleiko Sport AB, Anders Bohman, Lotta Havdrup, Rantzows Sport AB: Open norm critical innovation for relational inclusion (ONCIRI).- "New Sports material for children with and without disabilities".

## 17:05-17:50 Paper presentations II

Time	Paper presentations II: Wigforss Chair: Kristina Ziegert	Paper presentations II: Baertling Chair: Xavier Sanchez	Paper presentations II: Halda Chair: Eva-Carin Lindgren
17:05-17:20	Pelle B. Pelters, Halmstad University: Losing my religion –Vad kan det betyda för idrotten om hälsobegreppet inte längre konceptualiseras som enbart positivt konnoterat koncept?	Athletes transition in sport and life ”5 slides in 5 minutes”: Lukas Linnér, Natalia Stambulova, Halmstad University, Halmstad, Kristoffer Henriksen Syddansk University Odense: Facilitating Student-Athletes’ Development in Sport and Life through Optimizing their Dual Career Development Environment  Johan Ekengren, Natalia Stambulova, Halmstad University: No rest for the weary: Swedish elite handball players’ perceived demands in the transition to the national team  Alina Franck, Halmstad University/Linnaeus University, Natalia Stambulova, Halmstad University: A Swedish female basketball player’s junior-to-senior transition: A narrative case study	Susann Arnell, Örebro University, Kajsa Jerlinder, University of Gävle, Lars-Olov Lundqvist, Örebro University: Participation in physical activities described from the adolescents with an Autism Spectrum Disorders’ point of view.
17:20-17:35	Aija Klavina, Latvian Academy of Sport Education: Challenges to measure physical activity in children with disability: Instruments and technologies.	Simon Defruyt, Paul Wylleman, Shannen Deferme, Joanna François, Koen De Brandt, Vrije Universiteit Brussel: Elite sport and higher education: a qualitative study on the factors influencing athletes’ decision (not) to initiate the combination  Søren Svane Hoyer, University of Southern Denmark: Every Boy’s Dream: Young Danish elite footballers cultural transition.	Kim Wickman, Johan Strid, Umeå University: Inclusive transition processes: Strategies for sport
17:35-17:50	Lars Kristén, Maria Nyholm & Marie Lydell, Halmstad University: Physical activity for children in need of support: views from coaches from local sports clubs	Time for discussion	Susanna Geidne, Örebro University, Kajsa Jerlinder, University of Gävle: Documented inclusive physical activities for children and adolescents with disabilities within sport clubs

**18:00-19:00 Meetings**

<b>Wigforss</b>	<b>Baertling</b>	<b>Halda</b>
<b>SVEBI Annual Meeting</b>	<b>Sport psychology meetings</b> Moderators: Arne Edvardsson, Ulrika Billme, SIPF, Astrid Becker-Larsen, Jannie Steinbüchel-Berthelsen, DIFO - Role of Sport psychological associations in creating growth and stimulating networking within sports, federations and academia: experiences from Sweden and Denmark, SIPF and DIFO (open meeting) - Dutch Olympic Committee and Swedish Olympic Committee (closed meeting).	<b>Nordic APA meeting</b> Networking, collaboration and cooperation in APA in the Nordic and Baltic countries. Moderator: Lars Kristén, Halmstad University



## Scientific Program, Thursday November 23 2017

### 09:00-09:45 Key note III:

Solfrid Bratland-Sanda: Physical activity, exercise, sports and eating disorders - the double-edged sword

**Chair:** Linn Håman (SVEBI)

**Venue:** The Baertling Hall

### 09:45-10:15 Poster presentations II (see list of contributions above)

Time	<b>Paper presentations III Behavioral and Social Science Research in Sport and Sport psychology: Wigforss</b> <b>Chair:</b> Krister Hertting
10:30-10:45	Karin Weman & Jenny Back, Halmstad University: Projekt elcyklist – ett motivationsperspektiv
10:45-11:00	Auli Pekkala, Juuso Kokko & Mariitta Rauhala, Haaga-Helia University of Applied Sciences: Elite athlete career as a bridge to entrepreneurship
11:00-11:15	Astrid Schubring, Nathalie Barker-Ruchti, Anna Post & Stefan Andersson, Göteborg University: Understanding elite sport risk behaviour from a career perspective: A prospective case study with Olympic hopefuls
11:15-11:30	Susanna Hedenborg, Malmö Högskola: En ridsport för alla?
11:30-11:45	Ann-Christin Sollerhed, Högskolan Kristianstad, Jan-Eric Ekberg, Malmö Högskola: Fysisk aktivitet och motorisk träning i förskolan
11:45-12:00	Time for discussion

## 10:30-12:00 Symposium II

### Symposium II Sport Psychology: Halda

#### Psychological perspectives on sport injuries

Moderator: Urban Johnson, Halmstad University

Presentations:

Urban Johnson, Halmstad University: Introduction to the field

Ulrika Tranæus, GIH, Karolinska Institutet, Lucas Alriksson, Skandinaviska Naprapathögskolan, Urban Johnson, Halmstad University, Eva Skillgate, Karolinska Institutet: Psychological factors and overuse injuries in young female football players

Karin Moesch; Halmstad University/Swedish Sport Confederation: "Be mindful even though it hurts": The potential benefit of mindfulness- and acceptance-based interventions in sport injury rehabilitation

Simon Martin, Ecole Normale Supérieure de Rennes, Andreas Ivarsson, Halmstad University, Urban Johnson, Halmstad University, Ulrika Tranæus, GIH, Andreas Stenling, Umeå University Magnus Lindwall, University of Gothenburg: A meta-analysis on the relationship between social support and psychological and behavioral outcomes during sport injury rehabilitation

Arne Edvardsson, Halmstad University: Is there room for the Buddha in the applied sport psychology service? Mindful reflections of sport injuries, health and wellbeing from a sport psychology practitioner

Sofia Bunke & Eva Ageberg, Lund University: Behavior change – a key aspect of injury preventive training in youth sport

## 10:30-12:00 Workshop I

Time	<b>Workshop I Adapted Physical Activity: Högskolehallen</b> <b>Chairs:</b> Lars Kristén and Bodil Klingvall
10:30-12:00 Each workshop will be conducted three times à 25 minutes.	<p>1. Adapted Physical Education and Health in theory and practice Ulla Thorstensson, specialized Physical Education teacher Halmstad municipality Peter Pettersson, specialized Physical Education teacher Halmstad municipality Sara Hagestam, specialized Physical Education teachers Halmstad municipality</p> <p>2. Physical Education for all Birgit Flygstrup, teacher Jette Selmer, section manager Tine Soulié, consultant</p> <p>3. Practical Parasport Peter Malmberg, Hallands Parasportförbund</p>

**10:30-12:00 Workshop I**

Time	Symposium III Behavioral and Social Science Research: Wigforss	Symposium III Sport psychology: Baertling
* 13:00-13:40 ** 13:00-14:15	* Invited speaker: Carolina Lunde, Gothenburg University. Sport and exercise – good or bad for the body image?	** A hidden challenge: Mental Health problems in elite sports Moderator: Cecilia Åkesdotter, The Swedish School of Sport and Health Sciences

**13:00-13:40 Workshop II**

<b>Workshop II Adapted Physical Activity: Högscolehallen</b> Chairs: Lars Kristén and Bodil Klingvall
Team-SWE wheelchair handball, the Swedish Handball Association Julia Johansson, Gothenburg wheelchair handball Alexander Sjöberg, Gothenburg wheelchair handball

**13:45-14:15 Symposium IV**

Symposium IV Behavioral and Social Science Research in Sport: Wigforss	Symposium IV Adapted Physical Activity: Black Box (same building as Högscolehallen)
SVEBI award for best Master thesis	Invited speaker: Ingegerd Ericsson, Malmö University: The MUGI (Motor skills development as Ground for Learning) model for motor skills training for all children: a nine year intervention in the Bunkeflo project.

**14:45-15:30 Key note IV:**

Francesco Botré: The ages of doping  
Chair: Ann-Christin Sollerhed (SVEBI)  
**Venue: The Baertling Hall**

**15:30-16:00 Panel discussion:** The Double Edged Sword of Sport: health Promoting vs. Unhealthy Environments  
Chair: Natalia Stambulova (Halmstad University)  
**Venue: The Baertling Hall**

# The Conference Formats

## Keynote lectures

There will be four keynote lectures related to the theme of the conference: 'The Double-Edged Sword of Sport: Health Promotion Versus Unhealthy Environments' and hosted by the partners; SVEBI (Swedish Association for Behavioural and Social Sciences Sports Research), SIPF (Swedish Sports Psychological Association), SNAFA (Swedish Network for Adapted Physical Activity), and Halmstad University/Halland Sport Academy. Each lecture will last 45 minutes including questions and discussions.

## Symposia

There will be eight symposia (four sessions) organized by the partners of the conference. The speakers for the symposia are invited by the Organising Committee and/or by partners of the conference. Each symposium will last between 30 and 90 minutes.

## Paper presentations

There will be 22 paper presentations (three sessions) mainly related to the main scientific/practical orientation of the three part partners of the conference. Oral presentations will last 90 minutes. In most cases each speaker will be allotted 10 minutes for the presentation and 5 minutes for questions.

## Responsibility for oral presentations

Every lecture hall has a computer, projector and audio devices. Please provide your presentation to the computer desktop no later than 30 minutes before your session starts.

## Posters

There will be 18 posters presentations during the conference. Each poster should be clearly structure and most commonly include Introduction, Objectives, Method, Results, Discussion/Conclusions. The authors are requested to be available for communication during the two poster presentations according to the Conference Program.

## Workshops

There will be two workshops organized in two sessions by SNAFA. The sessions will last for 90 minutes each and will be held in Höghskolehallen.

## Knowledge market

Organizations, associations and institutions involved in the development of health and sports will exhibit and present topics in an open forum and in the main conference area Visionen. On three occasions with duration of 45 minutes, there is room for in-depth discussions and information exchange.

## Keynote Speakers



**Professor Paul Wylleman**  
Paul is Professor of Sport Psychology at Free University Brussel, Belgium, teaching sport psychology, high performance management and mental support for talented and elite athletes. His research and publications focus on athletic transitions, (dual) career management and sport psychology support services. He is head of the university department Topsport and Study and the research group Sport Psychology and Mental Support. He is past-President of the European Federation of Sport Psychology (FEPSAC) and high-performance manager Performance Behaviour of the Netherlands Olympic Committee. Paul was the team psychologist to the Dutch Olympic team at the 2016 Rio Olympic Games.



**Professor Yeschayahu "Shayke" Hutzler**  
Shayke is Professor of Adapted Physical Activity at the Wingate Institute, Israel, teaching adapted physical activity and physical education. His research and publications have revolved around the following topics: motor learning and control, physical activity of individuals with spinal cord injury and cerebral palsy, and intellectual disabilities and autism disorders. Shayke is the Past-President of International Federation for Adapted Physical Activity (IFAPA).



**Associate Professor Solfrid Bratland-Sanda**  
Solfrid is Associate Professor at Telemark University College, Norway, teaching nutrition and dietetics, and public health. Her research and publications are mostly in the field of obesity epidemic, eating disorders and healthy body image. Solfrid is, amongst other, member of American College of Sports Medicine and European College of Sport Science.



**Professor Francesco Botre**  
Francesco is a Chemist, Pharmacist, Pharmacologist Professor at "Sapienza" University of Rome, Italy, teaching Drug and Metabolite Analysis, and the Scientific Director of WADA-accredited Italian Anti-doping Laboratory. His research and publications are mostly in the following fields: biopharmaceutical, environmental, toxicological and food analysis. Francesco is, amongst other, a Fellow member of WAADS (President in the term 2006 - 2008); member of the WADA Prohibited List Expert Group; member of the Medical and Anti-Doping Commission of the International Commission for the Mediterranean Games; and member of the Virtual Interdisciplinary Advisory Group (VIAG) on Mass Gatherings of the World Health Organization.

# Proceedings

## Nordic Sport Science Conference 2017

Wednesday 22 of November 2017

### Keynote I

#### Supporting elite athletes' development and mental health

Paul Wylleman, Vrije Universiteit Brussel, Belgium and TeamNL/NOC\*NSF, Netherlands

If mental health is considered to be a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity, then it can be said that athletes will be faced with a diversity mental health challenges during as well as after their athletic career. Using a developmental/holistic perspective this presentation will in first instance reflect on some of the challenges to the mental health status of talented, elite, Olympic and retired athletes. In second instance, specific approaches used to strengthen and support athletes' mental health will be presented, including the development of competences among talented athletes; the interdisciplinary support provision of elite and Olympic athletes by sport, health, and clinical psychologists; and the career transition support for retiring and retired elite athletes. In conclusion, recommendations will be formulated on how the athletes themselves, coaches and support staff including (sport) psychologists, and sport federations and/or a NOC could optimize the development of the mental health of athletes (and coaches).

### Keynote II

#### Experiential Learning: Changing practitioners' perceived self-efficacy toward inclusion through discourse and experiential adapted physical activities

Yeshayahu (Shayke) Hutzler, Wingate Institute, Israel

Professional learning is a process of acquiring knowledge, skills, and competencies for applying an effective practice. In the case of physical education (PE) teaching and sport coaching (SC), this practice is composed of such attributes as assessment of participants' skills; analyzing their performance level and applying methods for improving the performance level; and, the acquisition of new movement skills and more comprehensive action capability. In the 21st century, practitioners in PE and SC find themselves facing diversity in the capabilities of their practice as the rule rather than as an exception. The experiences and methods gained within the adapted physical activity (APA) practice development could facilitate a new paradigm of adaptation in order to pursue a variety of individual and social physical activity goals and participation modalities. Facing this challenge, practitioners need to be trained in non-traditional methods. This presentation discusses the method of experiential learning, which is a unique experiential format of problem-based and team-based learning. Trainees are exposed to active learning situations in meaningful environments, such as soccer training and playing under a disability condition. The experience typically consists of two teaching sessions of 90 minutes each with an interval of a week between them. During the first session, challenges and adaptations of experiences are considered and reflected upon. The trainees are given an opportunity to express their self-efficacy (SE) for a set of practices, prior to and post the experience, completely or partially using the Situation Specific Self-Efficacy Instrument for PE teacher education (SSSI-PETE), as well as providing written open-ended reactions to the experience, using the "Google Forms" environment. In the second session, questionnaire results are analyzed and presented to participants as a starting point for discourse. In this presentation, examples of this methodology will be demonstrated and discussed.



## Symposium I – Oral presentations

### Elite athletes' vocational development: European perspectives

Natalia Stambulova, Centre of Research on Welfare, Health and Sport, Halmstad University, Sweden  
Paul Wylleman, Vrije Universiteit Brussel, Belgium and TeamNL/NOC\*NSF, Netherlands

#### Introduction

One of the main challenges that active and former elite athletes face is to pursue a satisfying vocational career during and after their termination in sport. In order to enhance elite athletes' employability and employment opportunities, the 'Be a Winner In elite Sport and Employment before and after athletic Retirement (B-WISER)' was initiated in 2017 with the support of the Erasmus+ Sport programme of the European Union.

#### Aim and theoretical framework

The aim of this invited symposium is to disseminate and discuss the research findings of the first work package of the B-Wiser project. More specifically, the speakers will focus on sport, educational and job-market stakeholders' perceptions of athletes' employability issues and as well as their roles, cooperation, and efficiency in supporting active elite athletes, just retired athletes, and former athletes during their first employment.

#### Method

The symposium will consist of two oral presentations and a panel discussion.

#### Result, Discussion and conclusions

The first presentation will provide a general outline of the B-WISER project by presenting the consortium, the aims, work packages and methodology of the project. The second presentation will focus on an evaluation of roles, cooperation and efficiency measures of the career support services from a European perspective. In the final panel discussion, career research and assistance experts from the six participating countries (i.e. Belgium, Germany, Italy, Slovenia, Spain and Sweden) will discuss various aspects of the vocational career support to active and retired elite athletes from their national perspective.

### Support for active and former athletes' employability and employment: An overview of career support services in Europe

Simon Defruyt, Department of Movement and Sport Sciences (MOSS), Vrije Universiteit Brussels, Belgium  
Koen De Brandt, Department of Movement and Sport Sciences (MOSS), Vrije Universiteit Brussels, Belgium

#### Introduction

The B-WISER project aims at developing conceptualisations, tools and evidence-based practices to enhance active and former elite athletes' employability and employment. In order to tailor these processes to the current support context, there is a need to assess the current state of the career support stakeholders within Europe.

#### Aim and theoretical framework

Current paper aims at identifying: (a) which support organisations organised what kind of support to active and former elite athletes; (b) how the career support stakeholders perceive the challenges and barriers that elite and former elite athletes encounter during their 'elite sport and employment' pathway; (c) how these stakeholders cooperate with regard to (former) elite athletes' employability and employment; (d) if and how these stakeholders assess the quality (i.e. effectiveness and efficiency) of their career support initiatives provided in order to enhance the employability and employment of elite athletes and former elite athletes.

#### Method

During the B-WISER project, 133 career support stakeholders from six European Member States filled in an online survey. To be included in the study, participants had to provide support to active and former elite athletes in view of optimizing their employability and/or employment before and/or after athletic career termination.

## Results

Results revealed that (a) participating stakeholders worked at representative bodies of active and/or former elite athletes (3%), elite sport organisations (53%), educational institutes (15%), private employment agencies (6%), public employment agencies (2%) or were employers of active and/or former elite athletes (8%); (b) in the perception of these career support stakeholders, active and/or former elite athletes encounter challenges and barriers that are specific to the stage they're in (e.g., time constraints are specifically relevant for active elite athletes, whereas difficulties with a new identity are especially relevant for former elite athletes preparing for a first employment); (c) although rated as equally important, cooperation between employment agencies and other stakeholders occurs less frequent than cooperation between the other types of stakeholders; (d) only 44% of the support stakeholders assesses the effectiveness and/or efficiency of their practice.

## Discussion and conclusions

This study provides an overview of the current state of the art of the career support services in six European Member States. As a clear need for tailor-made, phase-specific career support is illustrated within these Member States, it remains important to boost the quality of career support both from a research and applied perspective. In this regard, current research suggests that cooperation between career support stakeholders (especially with employment agencies) and the measurement of efficiency and effectiveness should be enhanced within these career support services.

## Be a Winner In elite Sport and Employment before and after athletic Retirement (B-WISER): the project description

Paul Wylleman, Department of Movement and Sport Sciences (MOSS), Vrije Universiteit Brussels, Belgium

### Introduction

There is a lack of empirical data and specific actions regarding the employability and employment of elite athletes during as well after their athletic career. Current presentation presents how the B-WISER project will address these concerns.

### Aim and theoretical framework

B-WISER, a 2-year project that is co-funded by the Erasmus+ programme of the European Union, aims at optimizing the employability and employment of active and former elite athletes. Therefore, B-WISER gathers empirical data and develops conceptualisations, tools and evidence-based practices in order to create the optimal environment for enhancing active and former elite athletes' employability and employment.

### Method and (future) results

The B-WISER project is coordinated by Vrije Universiteit Brussel and consists of 13 renowned partner organisations from six EU Member States (i.e., Belgium, Germany, Italy, Slovenia, Spain and Sweden) and 8 expert organisations (The Adecco Group, IOC, IPC, EOC, UEAPME, Schuman associates, Kapito HR, Unizo). Five work packages (WPs) with different types of methodologies will be used to execute the project. In WP1, the B-WISER project identifies existing employment support structures for active and former elite athletes. Subsequently, in WP2 the project will identify the competencies that active and former elite athletes need to be successful in their (future) employment. In the next phase, the added value of employing (former) athletes for employers (WP3) will be researched. Finally, using the results of the first WPs, the project will develop, implement (WP4) and evaluate (WP5) best practices in the participating countries to optimize the matching process between active/former elite athletes and (future) employers.

### Discussion and conclusions

The B-WISER project will allow educational institutions, sport governing bodies, employers, career counsellors and other stakeholders in Europe to optimize their employment support and guidance to active and former elite athletes.

## Supporting vocational development and employment of active and former elite athletes: Panel discussion on career support services from a national perspective

Paul Wylleman, Vrije Universiteit Brussel, Belgium

Sasa Cecic-Erpic, University of Ljubljana, Slovenia

Miquel Torregrossa, Universitat Autònoma de Barcelona, Spain

Babett Lobinger, German Sport University Cologne, Germany

Francesca Vitali, University of Verona, Italy

Kent Lindahl, Swedish Sports Confederation, and Johan Ekengren, Halmstad University, Sweden

The panel will consist of athlete career researchers and practitioners representing six European countries and led by a moderator. The panellists will be invited to elaborate on the following questions from the national perspective:

- How high are levels of awareness among sport, educational and job stakeholders about athletes' employability issues?
- What are the main strengths and weaknesses of the career support services for elite athletes? How these services can be optimized?
- Is there enough cooperation between the different career support stakeholders? How could this be optimised?
- How the career support stakeholders measure the efficiency and effectiveness of their services? Why is it important to measure this?
- What are major lessons you learned nationally from the B-Wiser working package 1?

The moderator will encourage discussion between the panellists and facilitate audience questions and feedback.

## Physical activity for adults with spinal cord injury: developing and implementing evidence-based exercise guidelines

Jan W. van der Scheer

Peter Harrison Centre for Disability Sport, National Centre for Sport and Exercise Medicine, School for Sports, Exercise and Health Sciences, Loughborough University, United Kingdom. School of Health and Exercise Sciences, iCORD, University of British Columbia, Kelowna BC, Canada

### Introduction

People with spinal cord injury (SCI) do far less exercise and are more physically deconditioned than the general population and other disability groups. An important first step toward using exercise to improve fitness and health, is formulating and implementing SCI-specific, evidence-based exercise guidelines. During this presentation, Dr Jan van der Scheer will describe the process and outcomes of using a new evidence base to develop scientific guidelines that specify the type and minimum dose of exercise necessary to improve fitness and cardiometabolic health in adults with SCI.

### Method and Discussion

Through a systematic, rigorous, and participatory process involving international scientists and stakeholders, it was possible to formulate a new exercise guideline for cardiometabolic health benefits, i.e. "For cardiometabolic health benefits, adults with a SCI are suggested to engage in at least 30 minutes of moderate to vigorous intensity aerobic exercise 3 times per week" (conditional recommendation). A previously published SCI guideline was endorsed for achieving fitness benefits, i.e. "For cardiorespiratory fitness and muscle strength benefits, adults with a SCI should engage in at least 20 minutes of moderate to vigorous intensity aerobic exercise 2 times per week AND 3 sets of strength exercises for each major functioning muscle group, at a moderate to vigorous intensity, 2 times per week" (strong recommendation).

The process and outcomes of developing these guidelines represent an important step toward international harmonization of exercise guidelines for adults with SCI. They also provide a foundation for developing and implementing exercise programs and policies for people with SCI around the world.

## Paper presentations I – Oral presentations

### Hur ser mångfalden ut i det svenska supporterlandskapet? En genus- och etnicitetsblick på fotbollssupportrar

Aage Radmann, Norges Idretts høyskole, Norway, Malmö University, Sweden

#### Introduktion

Vilken betydelse fotbollens supportterskap har i historiska, ekonomiska, sociologiska, kulturella och psykologiska perspektiv har undersökts och analyserats sedan 1960-talet. I princip alla studier har utgått från att supportern är en man och att hela supporter-kulturen är ett manligt fenomen inbäddad i en hegemonisk maskulinitet (Armstrong 1998, Connell 1995, Giulianotti 2012). Studien är en del av ett större forskningsprojekt kring Kvinnor och Supporterskap där författaren presenterade en annan delstudie på Swebikonferensen 2015, Kvinnligt supporterskap; makten över supportersidor i sociala medier.

#### Aim and theoretical framework

Syftet med studien är att kartlägga fotbollssupportrars mångkulturella bakgrund med fokus på kön och etnicitet. Studien vill koncentrera sig på supportrar, män och kvinnor, som stödjer herrfotbollsklubbarna; Malmö FF, AIK, Djurgården och Hammarby. Sociologen Erwin Goffmans (1959) teorier kring social interaktion, onstage/backstage, stigma och skam tillsammans med genusvetaren Judith Butlers (1990) diskussion kring performativt kön utgör det teoretiska ramverket.

#### Method

Studien baseras på medieanalyser av websidor för de olika supportergrupperingarna, deltagande observationer samt intervjuer – individuella intervjuer så väl som fokusgruppintervjuer.

#### Results

Fotbollen är en viktig del av många människors vardag och genom analyser av fotbollskulturen kan man skapa förståelse för samhällsfenomen som rör social klass, etnicitet, kön, sexualitet, identitet, plats, ekonomi, nationaliteter och tillhörighet. Fotbollen fungerar som ett samhälleligt mikrokosmos för levda erfarenheter och analyser av fotbollskulturen kan ge en bättre förståelse för idrotts- och samhällsutvecklingen (Sandvoss 2003). Studien kommer att ge ny kunskap om ett lite utforskat fält, nämligen supporterkultur och mångfald kopplat till kön och etnicitet.

#### Discussion and conclusions

I forskningen beskrivs ofta fotbollsläktaren som ett "frirum" från vardagen, ett rum där man kan visa känslor, där ens sociala tillhörighet inte spelar någon roll, där man tillåts visa total hängivenhet och besvikelse, en plats där både den individuella och kollektiva identiteten kan stärkas genom den gemensamma kärleken till laget och klubben. Men är detta "frirum" lika fritt för alla, oavsett kön och etnicitet? Eller är det så att ens könstillhörighet och/eller etnicitet begränsar frirummet, och om så är fallet, hur upplevs denna begränsning?

### Sport as an arena for integration? Discourses in open sport activities for newly arrived children and teenagers

Karin Kittelmann-Flensner, University of Västerås, Sweden

Peter Korp, Gothenburg University, Sweden

Eva-Carin Lindgren, Gothenburg University and Halmstad University, Sweden

#### Introduction

In Sweden a strong emphasis has been put on the role of sports clubs to actively strengthen democratic values and equality. Different governments have provided extensive funding for this purpose, but also for the purpose

of including children and youth independent of who they are and where they come from. However, there is little scientific evidence that sport clubs and their activities have the potential to fulfill this role in the community and there is very little systematically developed knowledge of how sporting activities and programs should be designed to achieve positive social outcomes. It is the leaders in the sport clubs that have the challenging task of ensuring that the objective of developing democratic values, equality, inclusion and well-being come true. Therefore it is important to examine how they understand and translate such normative goals into action.

The overall aim of the study is to explore the ways in which a sport club, in the context of open sport activities, are working with and potentially promoting values such as intercultural understanding, inclusion and equality among young people, of which a significant part are new arrivals in Sweden. Research questions focused in this presentation are:

- How are the open sports activities organized by the leaders, and what are their stated purposes?
- What kind of discourses and practices dominate among the leaders of the open sport activities?

The sport club studied has since 2010 worked actively with various social projects aiming to promote intercultural understanding, inclusion, gender equality, counteract effects of social and economic segregation and increase young people's agency.

### Method

The study is a case study with an ethnographic approach. The approach aims at understanding social phenomena and practices, human action and thinking and the importance and meaning different people ascribe to social phenomena. For that understanding to come about actions and conceptions must be understood and related to the context in which they occur. We as researchers participate in the social practices we study, talk with leaders and young people, see what they do, hear how they articulate their thoughts in different contexts, participate in their activities and so on, we get to see the world from the perspectives of the participants.

The study was carried out during 2016 and 2017. The empirical data consists of observations of participating leadership meetings, leadership courses, trainings and open sports activities, informal discussions and focus group interviews with leaders as well as various documents from the sport club, such as guidelines and other policy documents.

### Expected Outcomes

The preliminary results suggest that the sport club's social commitment and policy for inclusion is embraced by the leaders of the open sport activities, at least on a conceptual level. However, there are dilemmas and contradictions in the discourses and practices of the leaders. A dominant discourse emphasises the idea of inclusion and "sport for all". There is also a strong discourse of hardness among leaders, you should be "hard and fair" and not let the kids fool around and trick you. To frame and set principles for the activities is very important according to this discourse. On the other hand, there is also a strong discourse of caring and loving in relation to the kids. The leaders are struggling with the ambition to frame and be firm on the one hand, and to be caring and listening on the other. Generally speaking, the participants are responsive and respectful, both against each other and against the leaders. But in terms of promoting inclusion and supporting the agency of the participating children and adolescents the harsh discourse seems somewhat contradictory.

## Swedish youth soccer coaches perceptions of stress: a gender perspective

Krister Hertting, Centre of Research on Welfare, Health and Sport, Halmstad University, Sweden  
Stefan Wagnsson, Karlstad University, Sweden

### Introduction

The European Commission has highlighted the use of sports as an important venue for engaging citizens in health-enhancing activities, physical activity, volunteerism and active citizenship. Coaching is a central component of sports for children and youth. However, being a voluntary coach can be stressful. According to Wiersma and Sherman (2005), having a limited amount of time to volunteer, especially when having children of their own, was described as stressful by coaches. Solstad, van Hoye and Omundsen (2015) highlighted parent's pressure on

coaches, and Piper, Taylor and Garratt (2012) stressed how a 'no touch' culture can negatively affect coach recruitment, effectiveness and relationships. Surujlal and Nguyen (2011) argued that coaches' own health and wellbeing is a prerequisite to educate and inspire others. In addition, Stebbings, Taylor and Spray (2015) argued that coaches who experience higher levels of positive affect are more likely to trust their athlete's abilities and encourage empowering possibilities for these athletes. This is supported by Alcaraz, Torregrosa and Viladrich (2015), who suggested that coaches who experience psychological well-being more likely develop healthy relationships with athletes. Coakley (2006) suggested that fathers were more likely to claim expertise in sports and therefore more frequently act as coaches. In a study on female coaches' experiences of English coach education programs, Lewis, Roberts and Andrews (2015) found that coaches often experienced programs as gender discriminating.

### **Aim and theoretical framework**

The aim of the paper was, from a gender perspective, to study reasons why Swedish youth soccer coaches perceive stress in their role as coaches.

### **Method**

The study was based on an online questionnaire conducted with Swedish soccer coaches who coached children and young people between 6 and 18 years of age. Coaches were selected through systematic sampling from every regional football association in Sweden (21 regional associations). In total, 1514 coaches received the online questionnaire via email and 764 coaches (50.5% of the sample) answered.

### **Results**

Preliminary results shows that female coaches ( $n = 116$ ) find themselves significantly more stressed over having lack of competence compared to male coaches ( $n = 524$ ). Furthermore, female coaches don't consider themselves sufficiently proficient to perform their coaching assignments compared to male coaches. Female coaches are significantly more stressed over relations and conflicts with other coaches and lack of organization in the club. Another significant result was that female coaches, more than male coaches, want to develop knowledge about planning practices, how to teach technical skills, tactics and game understanding. Moreover, female coaches want to develop their knowledge about physiology, training and football injuries, while male coaches, want to learn more about children's development. In general, male coaches had finished more coach education programs comparing to female coaches.

### **Discussion and conclusions**

The results indicate that perceived stress as a coach in youth soccer reflects traditional gender patterns. Women are not expected to be as knowledgeable about sports as men (c.f. Coakley, 2006). Female coaches are also more stressed about relations with colleagues within the club. However, female coaches want to have more knowledge about traditional male skills and male coaches want to have more knowledge about traditional female skills.

## **Studying self-regulation and pressure performance dynamically: A pilot study**

Xavier Sanchez

Centre of Research on Welfare, Health and Sport, Halmstad University, Sweden

### **Introduction and Theoretical Framework**

When stakes are high, some may perform more poorly than expected (underperform, choke) whilst others may produce outstanding performances (excel, peak). In the field of sport, such performing-under-pressure phenomenon has traditionally been studied from two attention-based perspectives. Shortly, it is suggested that perceived pressure would either shift athletes' attention away from the task, inducing worries about the situation and its consequences (distraction), or increase athletes' self-consciousness about performing correctly, increasing attention to control task execution to ensure optimal performance (explicit monitoring).

However, these two approaches may not be contradictory; they would be compatible in the understanding of pressure performance in different contexts (DeCaro et al., 2011). Pressure would affect athletes at least in two different ways, depending on the attentional demands of the task being performed. According to Beilock and Grey



(2007), pressure would induce in the athletes worries about the situation and its consequences, occupying their minds (distraction – outwards focus), and would lead athletes to try to pay more attention to control task execution to ensure optimal performance (explicit monitoring – inwards focus). While previous studies have identified some determinants of the pressure-performance relationship, the world of sport is still left with questions such as why athletes choke when it really matters and how they can peak in high-pressure achievement situations. Therefore, to move research within the sport pressure-performance context forward, we suggest to study the role of regulatory focus and regulatory fit (Higgins, 2012), and do so within a rather dynamic perspective (e.g., Vallacher et al., 2002).

## Methods and Results

Two self-regulatory strategies are suggested (Higgins, 2012): focusing on accomplishments, aspirations and ambitions while being eager and enthusiastic (promotion focus), and focusing on safety, responsibilities and obligations while being vigilant and careful (prevention focus). First findings show that fit between the athletes' self-regulatory focus (promotion/prevention) and the nature of the achievement situation (promotion/prevention) influences performance positively. In high-pressure sport situations, fit would facilitate peak performance (protect athletes from choking); that is, regulatory fit would prevent distraction and explicit monitoring. Nonetheless, previous research has been developed within a rather static perspective even though most sporting situations, as well as their inherent perceived pressure, change continuously. Indeed, it is more than likely that regulatory fit emerges from the complex dynamics of timed situations, which cannot be captured by means of traditional static approaches (e.g., questionnaires administrated before and after given performances). Thus, we used in the present study a dynamical research method – mouse paradigm – to illustrate how a climber's perceived pressure and regulatory focus strategies (promotion and prevention, independently) change and adapt throughout the ascent of an indoor climbing route to satisfy the route's different situational constraints. Such a dynamical systems approach appears as particularly suited to provide insights into the emergence and adaptation of the athletes' psychological and performance states from ongoing interactions across various personal, task, and environmental factors.

## Discussion

Peak-performing under pressure (or at least not choking) would relate to the capacity athletes have to self-regulate, dynamically, how they interact with their environment (i.e., regulatory flexibility). That is, with optimal dynamical self-regulation strategies the hypothesised fit would be more likely to emerge, thus preventing distraction and explicit monitoring.

## Exploring the Social Side of Burnout in Sport: The implications of interpersonal relationships on athletes' perceptions, performance, and exhaustion

Paul Davis, Umeå University, Sweden

Louise Davis, Umeå University, Sweden

Ralph Appleby, Northumbria University, UK

Henrik Gustafsson, Karlstad University, Sweden

## Introduction

Athlete burnout has been the focus of extensive study over the past three decades. Although athletes' perceptions of their social environment can manifest psychophysiological implications, limited research attention has been paid to the social factors that influence athletes' perceptions of burnout. The role of the coach-athlete relationship has recently been studied in burnout research; however, its impact upon performance has not been examined. Additionally, as a consequence of shared experiences collective moods and team-based beliefs may develop between teammates; however, the role of teammates has not been explored in burnout research. In acknowledgement that social interactions can influence how athletes cope with the physical and mental demands of sport, closer scrutiny of the influence of social factors on athlete burnout appears to be warranted.

### Aim and theoretical framework

The aim of the program of research was to explore whether athletes' perceptions of their own exhaustion was influenced by perceptions of their teammates' exhaustion and the number of hours spent training with their

teammates. Additionally, cognitive and physical aspects of sports performance as well as psychosocial associations between the quality of the coach-athlete relationship and athletes' psychophysiological exhaustion were examined. In consideration of Jowett's (2007) 3 + 1Cs framework of coach-athlete relationships, and Maslach and colleagues' (2001) burnout framework, the program of research undertook a psychophysiological examination of social factors influencing athlete burnout.

## Method

In study one, male and female competitive athletes (N = 140) from a variety of team sports completed questionnaires measuring individual burnout (ABQ, Raedeke & Smith, 2001), perceptions of teammates' burnout (TBQ; an adapted version of the ABQ), and number of training hours per week on two occasions separated by three months. In study two, athletes (N= 88) representing seven competitive teams across four different sports, completed questionnaires measuring exhaustion (ABQ), perceptions of teammates' exhaustion (TBQ), and coach-athlete relationship quality (CART-Q; Jowett & Ntoumanis, 2004). Participants also provided saliva samples measuring cortisol (Pre-testing, immediately following physical and cognitive testing, and 20 minutes post-testing) and undertook a Stroop test (Bajaj et al., 2015) as a measure of cognitive performance after the completion of a 5-m multiple shuttle test (Boddington et al., 2001).

## Results

In study one, training hours were shown to contribute to athletes' burnout and perceptions of teammates' burnout at the second time point. Multilevel modelling indicated that actual team burnout (i.e. the average burnout score of individual athletes within a team) and perceived team burnout significantly influenced an individual's own burnout. In study two, structural equation modelling revealed a positive relationship between the quality of the coach-athlete relationship and Stroop performance; negative relationships between the quality of the coach-athlete relationship and athletes' exhaustion, perceptions of teammates' exhaustion, and cortisol responses to high-intensity exercise were found. Furthermore, results suggested that perceived teammate exhaustion mediated the relationship between the quality of the coach-athlete relationship and athletes' own exhaustion.

## Discussion and conclusions

Findings suggest that athletes' social environment can influence their experience of burnout and aspects of performance. Specifically, as a competitive season progresses training hours are more likely to influence an athlete's level of exhaustion and perception of teammates' exhaustion; relatedly, an athlete's perception of teammates' exhaustion can influence their own exhaustion.

Additionally, an athlete's psychophysiological experience of exhaustion and cognitive performance may be influenced by the quality of the coach-athlete relationship. Findings arising from the program of research highlight the influential role of the social environment in an athlete's experience and perception of burnout. Future research may explore the underlying mechanisms of interpersonal relationships that influence athlete burnout in order to advance theory, research, and applied practice.

## Transfer Problems in Coach Education: Bridging the gap between theory and application through multimedia learning

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## Introduction

Literature on coach education recognizes the challenge of transforming research and theory to application. The Motivation Activation Program in Sports (MAPS) is a coach development program aiming to foster learning of need-supportive coaching skills in coaches of young student athletes. Based on the science of learning, we developed a digital workbook containing video, text and sound. The aim of this presentation is to investigate how coaches experience the transfer problem in relation to the digital workbook.

### **Aim and theoretical framework**

Self-determination theory (SDT) posits a unique position in psychology (Deci & Ryan, 1985; 2000; 2017). This organismic theory of motivation, not only gives an explanation to why people do what they do, but brings the costs and benefits of various ways of socially regulating or prompting behavior into the picture. Autonomy-supportive social contexts tends to facilitate self-determined motivation and optimal functioning. MAPS aimed at teaching coaches the need supportive coaching style. Since a major concern about the ineffectiveness of coach education has been the transfer of theoretical knowledge to practical skills (Morgan et al., 2013; Standal, Hemmestad, Hardman, & Jones, 2010), we looked to the scientific study of how people learn. The cognitive theory of multimedia learning explains how people learn from words and pictures and uses an information-processing explanation of how people learn (Mayer, 2009; Mayer & Moreno, 2003). We developed context specific videos representing each of the need-supportive coaching strategies as part of the digital workbook.

### **Method**

10 coaches at a norwegian school for top athletes were interviewed within six months of taking part of MAPS. Semi structured interviews were used to ask the coaches about their experiences with MAPS and the educational material, to what extent they used the digital workbook and what they found challenging. The data was analysed using thematic analysis (Braun & Clarke, 2012).

### **Results**

How to communicate the theoretical knowledge into practical skills is often referred to as the transfer problem. The data analysis procedure of the interviews revealed two higher order dimensions, seven main categories of the multimedia learning tool. Overall, the major advantage with the videos, in contrast to text only, is the ability to show the coaches how need support can be acted out in a context specific way. The coaches experienced the videos as a medium that help them recognize the context specific situations. The other higher order dimension revealed that another major advantage with the videos is that they seemed to give the coaches some specific ideas for how they should act towards their athletes for best athlete motivation. Finally, this idea of how to act gave them the tool they need to recognize what they needed to change within their coaching style. Awareness through recognition leads to awareness of what to say and do, and can lead to the awareness of what each individual coach needs to change.

### **Discussion and conclusions**

Multimedia presentation can capture the complexities of behavior and context on screen, and is a good tool for integrating theoretical teaching and learning of practical skills, though newer enough alone. Coaches also need to practice their communicative skills with their students, though videos can make the link clearer. In the videos, we witness action-guiding knowledge and quick and concrete answers for how to respond in different situations. We argue that we need both formal and informal education. Can learning materials based on multimedia learning principles become a third way? The integration of theory and practice through situation specific videos in multimedia presentations can be a way of structuring learning through observation of other coaches in combination with situated learning.

## **Bodies, (Dis)ability and Gender in Curriculums and Course Literature in Physical Education Teacher Training**

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### **Introduction**

The Higher Education Ordinance (1993:100) states that to obtain a degree in Secondary Education the student should “demonstrate the knowledge about children’s development, learning, needs and circumstances required for the specialisation for which the qualification is awarded”, and “demonstrate a specialised capacity to create conditions in which all pupils can learn and develop”. However, previous Swedish research shows that disabled pupils who attend regular school often have negative experiences of the physical education (PE), especially during

the later years of elementary school. They feel excluded, pointed out and discriminated. It also appears that girls have a less positive experience of the subject than boys (both without disabilities). Finally, previous international research shows that PE teachers experience a lack of education in, knowledge about and experience of teaching disabled pupils.

### **Aim and theoretical framework**

The aim was to explore how the Higher Education Ordinance's qualifications were fulfilled in the Swedish PE teacher program, with specialisation in compulsory school grades 7-9 and in upper secondary school, with a focus on (dis)ability and gender.

The project draws from the work of sociologist Dorothy Smith (2001), who regards texts as factual, human practices, that constitute bridges between a ruling apparatus (in this case PE teacher training) and people's everyday lives (the PE teachers' and, finally, the pupils'). These texts regulate, co-ordinate and interfere in people's local practices.

### **Method**

In social science text analysis, some key issues should be asked, including what is produced as natural and obvious as well as how people representing different groups are depicted.

Firstly, curriculums at the PE teacher program of nine universities were analysed, aiming to explore how the Higher Education Ordinance's qualifications were fulfilled. Secondly, course literature that deals with inclusive education and/or disabled pupils and is used in the above-mentioned programs were analysed. The questions posed were:

- Is there a "we" in the texts, and, if so, who is included in this "we"?
- Which assumptions are made about bodies, (dis)ability and gender in the texts?

### **Results**

Different theoretical perspectives were found in the curriculums. One university states that all courses deal with knowledge of children in need of special support, thus setting disabled pupils in the centre of attention. Another university uses terms such as equal treatment, discrimination and offensive treatment, hence shifting focus from disabled pupils to teachers and classmates. The amount of literature dealing with these issues differed. While one university devotes 7.5 credits, others pay little or none attention to these questions.

The analysis of the course literature showed that it is an able-bodied "we" that educates and leads those who are disabled. Some texts only discuss how to adapt the teaching and physical environment, while others bring up teachers' and classmates' attitudes too. The gender perspective is absent in most texts, in one example, however, gender stereotypes are reproduced. Only one text has a norm critical perspective on gender and ability.

### **Discussion and conclusions**

The PE teacher programs offers resources of differing types, quantity and quality. It influences the teachers' and pupils' experiences of PE as well as of their own bodies. In order for the Higher Education Ordinance to be fulfilled, both basic knowledge about different impairments and their impact on participation in physical activity, and a critique of the "paradigm of normativity" (Fitzgerald 2005) prevailing in PE are required.

## **Lessons learned from a physical activity intervention study in psychiatric treatment: Perspectives from patients, staff, and leaders**

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### **Introduction**

Previous research have documented that being in physical activity (PA) regularly can counteract physical illness and enhance mental health and quality of life among patients with severe mental illness (SMI). However, here are two major challenges in transforming this knowledge into applied practice: a) make PA a regular part of psychiatric treatment, b) understand how staff can facilitate and support motivation for PA for patients with SMI.

## **Aim and theoretical framework**

The aim of the present study was to explore how a motivational physical activity intervention (MPAI), aiming to strengthen the role of PA as a part of treatment at a psychiatric institution, was experienced by the patients, staff, and leaders.

The MPAI was guided by the theoretical motivational framework of self-determination theory (SDT) (Ryan & Deci, 2017) and the counseling framework Motivational Interviewing (MI) (Miller & Rollnick, 2012). SDT argues that it is the quality, not the quantity, of motivation that will predict behavioral adherence. Autonomous motivations is described as an adaptive motivation that predicts behavioral adherence, and in this case long-term engagement in PA. Using MI techniques when promoting PA to patients was expected to enhance patients' autonomous motivation.

## **Method**

The MPAI was carried out at a Norwegian psychiatric institution housing 30 patients in treatment for SMI. PA was not a part of regular treatment at the institution before the intervention.

First, an educational part was given to all staff of the institution. Aim: introduction to MPAI (2 hours lecture), six selected staff-members at institution. Aim: enhance their knowledge about being co-instructors during the PA-intervention (8 hours course), three external PA-instructors. Aim: enhance their knowledge about psychiatry, SDT, and MI (40 hours).

Second, the MPAI was implemented and led by the external PA-instructors with help of the selected staff members. The intervention lasted for 8 weeks for each patient: (1½-week baseline period without PA, and 6½-weeks participating twice a week in the PA program).

Data collection:

Semi structured interviews was carried out after the intervention aiming to better understand the experiences of the participants of the MPAI:

Individual interviews with patients participating in the program (n = 6)

Individual interviews with staff serving as co-PA instructors (n = 6)

Focus group interview with the four leaders of the institution (n= 1)

## **Results**

Preliminary results indicated that both patients, staff and leaders experienced the MPAI as meaningful and important part of the treatment at the institution. Both patients and staff appreciated having external PA-instructor, while the leaders did not see this as a possible solution in the future based on economy. The aim of the leaders was that the staff should take over the responsibility for the PA-program in the future. Contrary, the staff largely experienced this as a burden as they did not feel competent for this task and due to time concerns (already having too many work-assignments).

## **Discussion and conclusions**

It was easy to agree for the participants (patients, staff and leaders) in the MPAI intervention that PA was a resource in psychiatric treatment, that fostered more activity for those participating, both patients and staff. However, the perspectives from staff and leaders differed as to who should carry out the PA-program and what kind of competences was needed in doing so. Differences in perspectives will be discussed in terms of consequences for the patients.

## Open norm critical innovation for relational inclusion (ONCIRI).- “New Sports material for children with and without disabilities”

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Anders Ericsson and Camilla Schough, Eleiko Sport AB, Anders Bohman and Lotta Havdrup, Rantzows Sport AB, Sweden

### Introduction

Children and young people with disabilities have a poorer state of health than other children without disabilities in Sweden. The knowledge about how the children should be included in Physical Education and Health is limited and inclusive Sports material for all children is missing in today's school. The project challenges standards relating to physical activity in general as well as specifically inclusion in the subject of Physical Education & Health and children with disabilities. The standards are about who is included and how these standards can be challenged by developing new tools in Physical Education and Health that are relevant to movement throughout the school context. This is done by collaborating with two different companies that design sports and fitness equipment. A starting point for innovation in the project is to ignore obstacles and instead prepare opportunities to create a society in which all children, adolescents, adults are included in sports and health activities regardless of ethnicity, disability or gender.

### Aim and theoretical framework

The overall purpose of the research project is to test and develop products and services together with companies that enable inclusive education in Physical Education and Health at school. One purpose is to study how the children perceive the products that are present and develop within the framework of the project. The International Classification of Functioning, Disability and Health (ICF) is central to health and well-being. The norm-critical perspective and learning with the focus on “How we learn” are at the heart of this.

### Method

The project uses qualitative approaches through participatory observations, interviews and sequencing of lessons in Physical Education and Health so that the outcome can eventually form the basis for development and evaluation of sports tools in the subject of Physical Education and Health at school. The project is being carried out at 3-4 elementary schools with approximately 10-15 children with and without disabilities, a total of about 50 children aged 10-15 years.

### Results

The results from interviews with children with and without disabilities, as well as surveys for Physical Education teachers, have been analyzed and discussed with the companies. There is a need for playful material as well as guides, manuals, instructional films in support of use. There does not appear to be weight training or weights today. The children talk about the joy of movement at the lessons but that it can be difficult with the motor and muscle strength. Rantzows Sport AB plans the prototype Sportblock, various building blocks / building materials that can be built together. Eleiko Group AB has developed the prototype Sand Glove, gloves in different weight for strength training and play. Applications for both sports materials are in both school and sports.

### Discussion and conclusions

The present project will contribute knowledge and tools that will make it possible for all to be included in the subject of Physical Education and Health at school. Previous research has often focused on the rights of people with disabilities and has had an evaluative role. Earlier development projects have also focused on custom sports tools that have not been available to everyone. The aim is to challenge existing norms and to have children with disabilities to be the norm for the development of sports equipment for all. Participation in Physical Education and Health will make a difference in the future for the children with disabilities, partly through improved health, and partly based on changed self-expectations and greater confidence in their own capacity throughout the school day. A norm in Physical Education and Health is, for example, in the education where a structure based on the majority's ability to participate is visible.



## Paper presentations II – Oral presentations

### Losing my religion – Vad kan det betyda för idrotten om hälsobegreppet inte längre konceptualiseras som enbart positivt konnoterat koncept?

Pelle B. Pelters

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#### Introduktion

WHO har slagit fast att hälsa är ett positivt koncept och det verkar vara den uppfattningen som ledsagar nästan allt hälsoarbete som ett normativt mantra. Samtidigt har ”hälsa” som ett diskursivt konstruerat koncept på sistone fått ta sig en törn och den positiva konnoteringen kan ifrågasättas genom att hänvisa till fenomen såsom bl.a. hälsism och ortorexi.

Lider ”hälsa” alltså av en form av ”ambiguifiering” och vad kan det betyda för hälsoarbetet som pågår inom idrotten i allmänhet och ämnet idrott och hälsa i skolan i synnerhet?

#### Syfte & teoretisk ram

Detta paper har ett dubbelsyfte:

- Ge en skissartad överblick över fenomen som kan ifrågasätta en positiv hälsouppfattning samt presenterar fenomenens villkor/inramning.
- Diskutera frågan vad ett ambiguifierat hälsokoncept betyder för idrott som hälsoarbete.

Ämnet diskuteras från ett postkonstruktivistiskt verklighetsperspektiv – där hälsa uppstår genom doing health – och med en normkritisk approach. Med detta i botten anses definitionen av hälsa som enbart positivt konnoterat koncept som en olämplig begränsning av hälsans betydelse.

#### Method

Detta paper är delvis review-artad, delvis en reflekterande diskussion som i sitt sätt att hantera kunskapsbasen exemplifierar hur verklighet (kan) konstrueras.

#### Results

I litteraturen presenteras följande upplevelser i samband med hälsodiskursen som kan tolkas som ”ambiguifierande” för hälsans påstådda positivitet:

- Resignation/förtvivlan kopplad till upplevelser av meningslöshet och utmattning gällande hälsokrav och hälsoinformation (e.g. Rangel et al., 2012; Broom, 2008)
- Beslutsångest i samband med ens eget hälsoarbete (Rangel et al, 2012)?
- Hälsoarbete som en möjlig belastning (MacGregor & Wathen, 2014)?
- En fråga om sociala identiteter där ”att leva ohälsosam” kan framstå som en form av motstånd (Broom, 2008) eller avgränsningsarbete och försvar (Bouwman et al. 2009; Crawford, 1994)
- (O-)hälsoarbete som balansarbete i samband med olika åkommor

Även skillnaden mellan aggressiv och en moderat hälsoism samt ”mediediagnosen” ortorexi som en (svensk) besatthet av hälsosam mat och träning (Håman, 2016) kan sorteras in som positivitetsifrågasättande fenomen.

#### Diskussion och slutsatser

Betydelsen av ett ambiguifierat hälsokoncept för idrotten diskuteras med 2 fokus:

- Som något som tillåter att belysa idrottens negativa sidor, t.ex. i samband med elitidrott och ”risk-idrotter”, och erkänna en mer diversifierad, realistisk bild av vad det innebär att idrotta;
- Som något som hindrar att annonsera ut idrott som positiv ”hälsokur” och kan kollidera med idrottens positiva rykte som ”samhällsspelare”.

# Challenges to measure physical activity in children with disability: Instruments and technologies

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## Introduction

Physical activity participation is widely recognized as a critical component of health and development for children with and without disabilities. Lifelong participation in physical activity is a vital part of healthy lifestyle and also contributes development of physical skill competences for all children (Ortega, Ruiz, Castillo, & Sjostrom, 2008). During childhood significant physiological and anatomical changes take place due to growth and maturation, thereby influencing different health aspects. It has been shown, that instant feedback can provide additional habit-forming benefits compared to delayed feedback. Unfortunately, Actigraph and similar devices by themselves do not provide instant feedback and not appropriate for the needs of children, especially, those with disabilities. There is limited evidence on variety of technologies that would be appropriate to use in monitoring physical activity (PA) in children with different disabilities.

## Aim and theoretical framework

This study aimed development of a wearable real-time monitoring and feedback system designed for children with disabilities with the goal of promoting recommended daily activity levels (60 min per day) and at the same time validating this approach by comparing it to the strong analysis capabilities of the industry standard Actigraph device readings.

## Method

The participants of the study were children (age 7 – 11 years) with mild and/or moderate physical, intellectual and/or visual disability. The data were collected by an internet connected and Bluetooth capable smart device for data processing, feedback and sending data to “the cloud”. In the specific data acquisition experiment this role was filled with Android based smartphones, for which a logging application was developed. The subject activity levels were recorded in both peaceful state and specific activities according the Test of Gross Motor Development (TGMD-2).

## Results

The wearable device was crated and used to communicate with sensor device via Bluetooth, to save the sensor readings and plot the activity level. The device consisted of Raspberry Pi Zero computing device that uses LM811 for wireless communication and uLCD 32PTU colour display with 320 \* 240 pixel resolution, audio speaker and vibrating motor for user interface. User interface included visual, audio and vibration signals to meet the need of children with various disabilities allowing him/or her to received the immediate feedback most suited for them. The presentation will include pictures and graphs illustrating the data collection and feedback provided by the device for the participants.

## Discussion and conclusions

The developed prototype device has the potential to provide real time feedback and motivation for PA with precision comparable to the Actigraph analysis. The algorithm and device still needs to be customized for unattended use and validated in a sizeable sample of target subjects.

This study was supported by the EEA/Norway Grants “Research and Scholarship” program in Latvia and done within the project „Health and Social Indicators of Participation in Physical Activities for Children with Disabilities” (NFI/R/2014/070).

# Physical activity for children in need of support: views from coaches from local sports clubs

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## Introduction

Children in need of special support have, in comparison with their peers, poorer health, a more inactive lifestyle and less social interactions. Children in need of special support have also difficulty in establish close and intimate relationships, and difficulties in interacting with children without special support. The children do not participate in leisure time activity such as sports to the same extent as children without special support. Several factors may influence the participation in physical activity (PA) and sports organizations, such as the attitudes in the surroundings society, knowledge (or lack of knowledge) in the organizations and the children's difficulties in joining sport activities in groups. In Sweden, prescriptions for PA and sports for children in need of support have been scarcely used in the Health care sector. In 2015 a project was implemented, a systematic collaboration between Child Adolescence Psychiatry centre (CAP), Halland Sport Federation (HSF) and local sport clubs.

## Aim and theoretical framework

The aim was to describe views of possibilities and barriers from coaches at local sports club, when implementing prescriptions for PA and sports where the goal was to motivate and organize activities for children in need of support. The UN Convention on the Rights of the Child, as well as the United Nations Standard Rules and the Salamanca Declaration requires participation for children with disabilities. Participation in sport can be related to the child's total health.

## Method

Three focus group interviews were conducted in late Spring 2016, where 10 coaches from multiple sports were recruited from 10 local sport clubs. The interviews were performed by 1 moderator and 1 observer. The participants were informed about the aim of the study and full participant confidentiality was ensured via letter. The focus group interviews were conducted at Halmstad University or at the HSF, the lengths of the interviews ranged from 50 to 60 min. and were digitally recorded and subsequently transcribed verbatim. Data were categorized and qualitative content analysis was the chosen analysis method.

## Results

The children's own context; the coaches discussed the impact of the child's social context, they expressed problems with transport to the activities. They meant that the parent's could both coach the children and disturb the sport activities. The social culture of the local sport clubs; the coaches discussed the social culture of the club and the lack of time, space for all children to do sports. They have learned how valuable it is for themselves to see those children do PA and link this to the value of sports – everyone can join. The interactions with the children; there was a need of knowledge about the children and the coaches felt uncertain about the child as they were urged for more knowledge about the diagnosis. They expressed that interaction with the children was a personal development. Sustainable resources; the coaches discussed the time limit of the project. The communication with CAP and HSF and the information material was therefore not kept updated. The coaches also expressed that there must be a structure for the future and saw the project as successful.

## Discussion and conclusions

The task for the local sports club is complex and requires different actions with a holistic perspective. For example, training in different skills for reach out to the child and consistent application of guidelines are important contributions, but there should also be more support from the community to maintain a sustainable organization for children in need of support and the local sport clubs. Realizing that coaches perceive barriers when motivate and organize activities for children in need of support in general is important and needs to be taken into account when planning, developing and implementing interventions including PA and sports.

# Facilitating Student-Athletes' Development in Sport and Life through Optimizing their Dual Career Development Environment

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## Introduction

The major line of previous dual career (DC; combination of sport and studies or work) research has revolved around understanding student-athletes' coping resources and career pathways in combining sport with demands in studies and other developmental domains (e.g., psychological, psychosocial, financial; Wylleman, Reints, & De Knop, 2013). Around Europe, and visible in Sweden through the current development of National Sport Universities, sport federations and universities (and others) co-create performance centers or hubs for DC development with the aim of supporting athletes not only in their athletic development, but also in their academic and vocational development. Research and understanding into these environments is limited. Inspired by the holistic ecological approach and research into athletic talent development environments (Henriksen & Stambulova, 2017), a new line of dual career research has emerged focusing on the environment and its impact on student-athletes development through research into 'dual career development environments' (DCDE; Linnér, Stambulova, & Henriksen, 2017).

## Aim and theoretical framework

The aim of this study was to explore a dual 'sport and study' career development environment at a Swedish university from the holistic ecological approach (Henriksen, 2010; Henriksen & Stambulova, 2017) and the DCDE model (Linnér et al., 2017)

## Method

We employed a mixed-method case study approach (Hodge & Sharp, 2016) with a dominant qualitative design (e.g., interviews, observation) supported by quantitative monitoring of student-athletes' adaptation during their first year at the focal DCDE. The DCDE under study included a Swedish university sport science bachelor program in cooperation with a private foundation. The target group consisted of nine first year university student-athletes (6 males and 3 females) and four support providers (e.g., study director, teacher, sport coach and manager). Data were collected from multiple sources. Student-athletes were quantitatively monitored 19 times throughout the first educational year (August-June) and individual profiles of their adaptation in the DCDE were created. Further, these profiles were used to facilitate semi-structured interviews with the student-athletes about their perceived support during their transition to, and first year within the environment. We also conducted semi-structured interviews with the support providers to discover their perspective on the environment and the support they provided. Documents collected from the web-pages of the educational program and DC foundation together with observations through taking part in the natural setting of the environment added to the total data set which we thematically analyzed (Braun, Clarke, & Weate, 2016) to identify the key features of the DCDE under study.

## Results

The key features of the investigated DCDE included: collaborative arrangements between sport and academic stakeholders aimed at facilitating the student-athletes' DCs, strong cohesion among student-athletes, high quality coaching and facilities part of a strong community of the sport, strong organizational support within the university, shared basic philosophy between support providers in sport and studies (e.g., a whole person perspective), clear and outspoken responsibilities of each support provider, but shared responsibility for "the whole", and opportunities for vicarious learning in between student-athletes (e.g., having proximal role models, student mentorships).

## Discussion and conclusions

Previous DC research has mainly targeted student-athletes and their individual coping resources focusing on how to empower the individual with the knowledge, skills and attitudes necessary for successful DC development. Research into DCDEs assumes a supplemental perspective targeting, not the individual, but the environment, and

how the cooperation between sport and academic stakeholders can be optimized for the benefit of student-athletes DC development (e.g., through a shared DC culture). In this presentation we will share the key features of the investigated DCDE as a way to promote recommendations for researchers and practitioners interested in optimizing DCDEs to facilitate student-athletes development in sport and life.

## **No rest for the weary: Swedish elite handball players' perceived demands in the transition to the national team**

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### **Introduction**

Athletes have to pay a price to make their dream true, and for many this dream is to become professional and play in the national team (NT). Playing in the NT is often seen as the pinnacle of an athletic career but also as a period when athletes experience new demands due to their dual responsibility of playing in the club and in the NT. This dual responsibility brings additional performance demands, increased workload, extended travelling, many days away from home, etc., and in a combination with too little recovery, and various role conflicts leads to a stressful living. The transition to the NT can be classified as a quasi-normative (Stambulova, 2016) that is relevant only to elite level athletes. Challenging nature of this transition in a combination with its personal and social significance might put players at risk of poor coping and mental health problems (Frank, Nixdorf, & Beckmann, 2015; Stambulova & Wylleman, 2014; Stambulova 2017).

### **Aim and theoretical framework**

The transition to the NT was identified as a topic specific for the mastery stage of the players' careers in the empirical career model of Swedish handball players (Ekengren, Stambulova, Johnson, & Carlsson, submitted). This model complemented by the athletic career transition model (Stambulova, 2003; 2009) served as theoretical frameworks for this study. The aim of this study was to examine Swedish elite handball players' experiences of participating in both a professional club and the NT with a specific focus on their perceived demands.

### **Method**

In the narrative-type interviews 18 Swedish elite handball players (9 men, 9 women) were encouraged to talk about their careers with foci on both athletic and non-athletic development (Ekengren et al., submitted). Narratives about their experiences of playing both in professional club and the NT were extracted from a larger data set and thematically analysed (Braun, Clarke & Terry 2015).

### **Results**

The national team was described as a great reward for their performance efforts and achievements, but also as a burden of being time and energy consuming:

It's a great honour to play in the national team, and you don't want to turn it down. But I didn't get the recovery I required to be able to play in both. So, I had to say "no", because it tears greatly. It wasn't right to my club that pays my salary. (Female player 7)

Major themes outlining the players' perceived demands in the NT transition were:

"it wears and tears a lot physically and psychologically" (e.g., brings higher performance demands but also leaves small time for recovery);

"you are caught in the treadmill of recurrent events (e.g., difficult to maintain good life quality being away from family)

"you are torn between the two team" (e.g., conflicting interests in professional and national team)

"you are torn between different roles" (e.g., between being the NT player and a club player, a players and a family member)

### **Discussion and conclusions**

The project reveals how professional athletes appraised the increasing demands when selected to the NT. On the

one hand, the NT transition was seen as a reward, but on the other hand, the transition demands put players under risk of too high life stress with possible negative consequences (e.g., injuries, burnout, and depression) to follow (e.g., Ivarsson, Stambulova, & Johnson, 2016; Stambulova, 2017). Based on the research findings recommendations will be provided for psychological support of NT-players and their coaches/managers in club and federation. This will include, for example, promoting a holistic view of the players' situation, individual recovery plans and communication skills.

## **A Swedish female basketball player's junior-to-senior transition: A narrative case study**

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Linnaeus University, Sweden

**Natalia Stambulova**

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### **Introduction**

The junior-to-senior transition (JST) is key for athletes who want to reach the elite sport level, and often lasts between one and four years (Bruner, Munroe-Chandler, & Spink, 2008; Stambulova, 2009). Narratives (e.g., performance, relational, discovery) are often rooted within particular socio-cultural contexts (Carless & Douglas, 2012) and influence athletes' development and identities. Gould (2017) noted, "It takes a community to develop an athletic career", and key persons (e.g., coaches, family, peers) and settings (e.g., federation, sport club, school) may influence athletes' development. This study is a qualitative follow-up to a quantitative longitudinal (five measurements during two-and-a-half-years) study of the JST process in Swedish sport club athletes (Franck, Stambulova, & Weibull, 2016; Franck, Stambulova, & Ivarsson, 2016).

### **Aim and theoretical framework**

Stambulova (2016) wrote, "the career topic (although studied a lot quantitatively) has an inherent qualitative nature because there are as many careers with various pathways, contexts, and personal meanings of career experiences as there are athletes" (p. 450). This study aimed to explore the JST process through a narrative approach, which has been used in previous career research (e.g., Carless, 2008; Storm, Henriksen, Larsen, & Christensen, 2014). The objective of this study was to explore a team sport athlete's transition pathway through the JST with an emphasis on the psychosocial factors that the athlete perceived as facilitating and debilitating the transition process.

### **Method**

In narrative research, the athlete is the storyteller (Smith, 2016), and the story is the source of data that provide understanding of the athlete's JST process. A narrative type interview was conducted, and the athlete (Anna, the basketball player was 23 years old) was encouraged to reflect retrospectively on her JST, using five measurement points of the longitudinal study as an aid to structure the narrative. The interview (approximately 90 minutes) was transcribed verbatim, and the holistic-form structural analysis (Smith, 2016) was used to analyze the story.

### **Results**

Anna constructed her JST path as an enjoyment and relationship narrative. Some influences of the performance narrative are visible in Anna's story (e.g., in the assumptions from coaches, parents, and teammates that she would try to advance to a higher team if given the chance), she did not fully embrace this narrative. Instead, she emphasized the fun and enjoyment related to basketball (e.g., the game and her team/teammates). During the JST, she perceived the key facilitating persons to be her family members and teammates. Her perceived debilitating factors were some coaches' behaviors, Anna's team was merged with another team, and she had negative experiences with the new coach. At the time of this study, Anna had already terminated her athletic career and refocused to education.

## Discussion and conclusions

I was 16 years old, and I didn't have any long-term goals because I didn't know what I really wanted. I never had a dream to play for women's team. I just liked playing basketball with the team I was in, but I did like winning too. This quote (from Anna's narrative) shows that some athletes, even though they may be talented juniors, do not have ambitions to pursue elite athletic careers. The influences (e.g., sport culture, team mates, non-sport peers) are probably why Anna vacillated between sport and social life, and didn't see the performance narrative as dominant in her JST path, and instead had an enjoyment and relationship narrative. We hope that findings of this study will encourage coaches and practitioners who work with junior athletes to stimulate sport organizations to provide athletes with opportunities to continue in sport at a level that matches their motivation and skills after their competitive careers end.

## Elite sport and higher education: a qualitative study on the factors influencing athletes' decision (not) to initiate the combination

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### Introduction

Several researchers have investigated the transition of student-athletes from secondary into higher education from a holistic and developmental perspective. These studies mainly focused on the demands, resources, barriers and coping strategies needed during and after this transition (e.g., Brown et al., 2015, MacNamara & Collins, 2010). However, research on the athletes' decision process leading up to this transition, is lacking.

### Aim and theoretical framework

Current research aims at identifying which and how multilevel factors contribute to the decision (not) to initiate a dual career in higher education. Both the Holistic Athletic Career model (Wylleman & Rosier, 2016) and The Push Pull Anti-push Anti-pull framework were used as main theoretical frameworks to investigate this decision process.

### Method

Sixteen promising and elite athletes ( $M_{age} = 17.76$ ,  $SD = 0.50$ ; 56.25% males) in secondary education were interviewed about why they would (not) initiate the combination of elite sport and higher education. Using thematic analysis, the influencing factors were divided into the different levels of the HAC model (i.e. athletic, psychological, psychosocial, academic/vocational and financial) and The Push Pull Anti-push Anti-pull framework.

### Results

Push factors (i.e. factors of the current situation that 'push' them towards initiating the combination of elite sport and higher education) were mainly situated within the psychosocial level (63% of raw data themes), with a supportive environment (sport federations/coaches, peers, family) being of crucial importance. Pull factors (i.e. factors of the future situation that 'pull' them towards initiating the combination of elite sport and higher education) were mainly situated on the academic/vocational level (63% of raw data themes). The importance of a degree and future job opportunities were especially relevant in this regard. Anti-push factors (i.e. factors of the current situation that withhold athletes of initiating the combination of elite sport and higher education) were mainly situated in the psychological (29% of raw data themes) and psychosocial level (36% of raw data themes) and included the feeling that mental pressure and lack of free time to see friends was already bothering them (although they didn't start their higher education yet). Anti-pull factors (i.e. factors of the future situation that withhold them to initiate the combination of elite sport and higher education) related mainly to psychological factors (53% of raw data themes) and included the fear of the future toughness of the combination and fear of motivational drops.

## Discussion and conclusions

The Push Pull Anti-push Anti-pull framework in combination with the Holistic Athletic Career model was found

useful in investigating the athlete's decision process to start a dual career. Current findings can help practitioners in preparing and supporting student-athletes to take a well-considered decision (not) to initiate the combination of elite sport and higher education. Future research could investigate how the decision process influences the outcomes (e.g., mental well-being, measures for success in the field of sport and higher education) of the decision.

## **Every Boy's Dream: Young Danish elite footballers cultural transition**

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### **Introduction**

Transnational mobility in sport has intensified (Ryba, Stambulova, & Ronkainen, 2016), and the migration of football players has increased in recent years (Elliott & Harris, 2015). Especially young football players face severe challenges related to their acculturation (Richardson, Littlewood, Nesti, & Benstead, 2012; Weedon, 2011).

### **Aim and theoretical framework**

This study examines the experiences of elite young Danish football players on the basis of the Cultural Transition Model (Ryba et al., 2016). It is explored how the players try to cope with the challenges they face and furthermore, it is discussed how players should be better prepared for this transition in the future.

### **Method**

Five Danish players aged 18-22 years, who were undergoing a cultural transition, were interviewed using a biographical and narrative inspired approach, and data was analysed using the principles of narrative analysis (Sparkes & Smith, 2014).

### **Results**

The players experienced challenges such as uncertainty until their transfer is confirmed, learning a new language, a physically tougher environment, increased competition, new kinds of relations to coaches/teammates and being alone away from family and close friends. The close relations of the players (parents, girlfriend, friend and agent) were significant for their coping, which was critical to their acculturation and performance.

### **Discussion and conclusions**

Using the lens of the Cultural Transition Model (Ryba et al., 2016) the players lived through the Pre-transition phase, and faced most of their challenges in the Acute Cultural Adaptation phase. This highlights the need for supporting the preparation of both players and their close relations. A holistic intervention should develop the players self-awareness and consider the "how" and "when" of the close relations' support. The players do not fully experience a Sociocultural Adaptation as their limited stay does not yet associated with permanency or long-term.



# Participation in physical activities described from the adolescents with an Autism Spectrum Disorders' point of view

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## Introduction

Physical inactivity is a current public health problem. Few adolescents with an autism spectrum disorder (ASD) achieve the recommendation of daily physical activity (PA). They are less physically fit and they participate in fewer activities compared to typically developing peers. Frequently mentioned reasons for not being physically active relates to intrinsic factors such as lack of motivation, low interest in PA, low perceived motor skill competence, low enjoyment of PA and reasons related to symptoms of ASD, such as impairments in communication, social interaction and motor impairments. Participation in organized physical activities requires both social interaction skills and athletic skills thus affecting their participation in PA. The reasons for not being physically active depend on several complex factors, but yet not comprehensively described from the adolescents' point of view. The absence of their perspective means that intervention strategies for health enhancing physical activity may not encompass the experiences of the adolescents themselves.

## Aim and theoretical framework

The aim of this study was thus to develop an understanding of how adolescents with an ASD perceive, experience and reflect on their participation in PA.

## Method

Participants and methods:

Twenty-four adolescents, diagnosed with an ASD without a co-occurring intellectual disability, aged 12-16 years, participated in the study. Data was collected using qualitative interviews and inductively analyzed using qualitative content analysis.

## Results

Adolescents with an ASD were a heterogeneous group in regard to their current PA habits and preferences. They described challenges in the activity and the social context during PA, especially during the mandatory physical education. They expressed a variety of interacting factors determining willingness to participate that were categorized into: Competence and confidence, Motivation, Adjustment to external demands, Predictability and Freedom of choice. These aspects were conceptualized in an overarching theme: Conditional participation in physical activities.

## Discussion and conclusions

Findings indicate that the adolescents' willingness to participate was associated with interacting and individual-related conditions, which can be misinterpreted as unwillingness to participate in PA. Thus aspects of autonomy and knowledge about individual conditions and needs have to be recognized. The present study presents an alternative perspective on participation in physical activity, and we propose that interventions must take into account the individual nature of preconditions for participation in physical activity among adolescents with an ASD.

## Inclusive transition processes: Strategies for sport

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The purpose of this paper is to investigate the inclusive transition process of sports for disabled athletes (Parasport Sweden) to national sports organizations for able-bodied athletes (NSOs), especially with regard to professional cooperation and support needs. In order to reach this aim, semi-structured interviews with 20 key personnel involved in the process of eight NSOs (Swedish Dancesport Federation, Swedish Floorball Federation, Swedish Football Association, Swedish Judo Federation, Swedish Ski Association, Swedish Athletic Association and Swedish Tabletennis Association) was conducted. The selection of NSOs was made by Parasport Sweden. The key personnel revealed three recurring themes: They were positively disposed to inclusion as an development of the sports organization b) The key personnel have differential efficacy to in achiving succesful inclusion, and c) The key personnel expressed a need of professional support due to disabilitiy and disability sport expertise. Finally, identified lessons learned during the course of the process and directions for future research in this area will be discussed.

## Documented inclusive physical activities for children and adolescents with disabilities within sport clubs

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Young people with disabilities participate to a lower extent in organized sport than their peers without disabilities. Research in this matter has previously focused on the complex barriers that restrict participation in sports clubs, rather than what can facilitate participation and inclusive activities. There is a need to study real examples of how sports clubs can include children and youth with disabilities in the sport program. An overview of inclusion in organized sports regarding children and adolescents with disabilities is lacking today. Therefor the aim of this study is to increase the understanding of how sports clubs include children and adolescents with disabilities in their activities. The results of this systematic search on documented inclusive physical activities within sport clubs shows that are few peer-reviewed studies that describe how (i) children and young people with disabilities are included in sports clubs' regular, ongoing activities. The sports clubs rather worked with short –term intervention-based activities in team-sports settings (what ii). The main documented reasons for sport clubs to inclusion in organized sport (why iii) were to increase the participation of youth with disabilities and to promote social contact between children with and without disabilities. The lack of documentation and the limited collective knowledge-based is discussed as a problem while implementing a successful inclusive approach on adapted physical activity in organized sport settings for all people longer time in life.

## Sport Psychology Meeting

### Role of Sport psychological associations in creating growth and stimulating networking with in sports, federations and academia – experiences from Sweden and Denmark

Arne Edvardsson and Ulrika Billme  
SIPF; Swedish Sports Psychological Association

Astrid Becker-Larsen and Jannie Steinbüchel Berthelsen  
DIFO; Danish Sports Psychological Association

#### Introduction

Sport psychology is today an integrated part of elite sport and exercise psychology is a well-developed field of research and practice. It is recognized in elite sport and talent development, that top performance involves technical, psychical, tactical, social and mental skills. Much has happened over the past 25 years since the Danish Society of Sport Psychology (DIFO; 1992) and the Swedish Sports Psychological Association (SIPF; 2000) founded. When talking to experts in the field and looking at what is reported in media there have been a significant growing interest of sports psychology and understanding how it can contribute to improved health, wellbeing and performance. This interest is also seen in the number of students, researches, coaches, athletes being actively involved in this field. However, this growth has not been reflected in increased membership numbers of SIPF or DIFO. The association's goals are to promote and develop sports psychology research, teaching and applied practice by gathering experiences from different practitioners (e.g., academia, federations and sports). Therefore, it is in both associations' interest to come together and discuss the past, present and future to continue stimulating the growth of field of sport psychology. In this symposium DIFO and SIPF will present experiences working as associations to support education, research, professional practice and service in the field of sport and exercise psychology. Each organization will individually present their efforts, delivered practise and future aims to support the development of sports and exercise psychology in Denmark and Sweden.

#### Aim and theoretical framework

The purpose of this symposium is to stimulate a discussion about what creates sport psychological growth and networking in sports, federations and academia.

#### Method

Board members from DIFO and SIPF have been invited to participate in this symposium. To imitate discussion the participants have been given the assignment to answer the 3 open questions regarding their association: "What have you done in the past?", "What are you doing right now?" and "What will you do in future?" Each association is given 15 minutes to reflect on these questions. Then the conference audience, attending the symposium, are welcomed to take part in the discussion. Finally, the board members summarize the discussion and suggest directions for future growth and networking opportunities.

#### Results

The ideas and future direction regarding growth and networking in sport psychology discussed in this symposium will be summarized in a shared guideline document.

#### Discussion and conclusions

For the continued growth and networking of field of Nordic sport psychology it is important with visionary and reflecting sport psychology associations that actively involve its members. The shared presentation wish to involve and learn with and from the symposium participants by asking: what would you want from a membership of a sport psychological association? By introducing the final discussion, the purpose is to develop and learn from best practices across nation states and create fruitful cooperation in the future across the Swedish/Danish border (and further). By coming together and bridging our past, present and future we hope to stimulate continued growth in academia, education and applied sport psychology service.

## Keynote III

### Physical activity, exercise, sports and eating disorders - the double-edged sword

Solfrid Bratland-Sanda, Telemark University College, Norway

Physical activity in eating disorders is considered a double-edged sword. On the one side, excessive and compulsive exercise has been shown to be frequent among persons suffering from eating disorders, and those who are exercising excessively and compulsively often show more severe eating disorder psychopathology, more comorbidity, longer treatment duration, poorer treatment outcome and higher risk of relapse. This is in huge contrast to the major public health issue of the 21st century, which is low cardiorespiratory fitness caused by physical inactivity. On the other side of the sword, adapted physical activity has been shown beneficial as part of treatment for various eating disorders.

In very active populations, such as elite athletes and group fitness instructors, there has been shown high prevalence of eating disorders. In fitness center settings, there are also a huge number of the fitness center members that show signs of disordered eating and full-blown eating disorders. It is therefore important that physical education teachers at all school levels, coaches in sports and employees at the fitness centers are aware of this, and have competence in identification and management of eating disorders.

In the presentation, I will present current knowledge, ongoing studies, suggested guidelines for identification and management of eating disorders in a) elite sports, and b) fitness centers, and suggested guidelines for use of physical activity and exercise in treatment of eating disorders.

## Keynote IV

### The ages of doping: the evolution of performance enhancing drugs in sport and society

Francesco Botrè

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Laboratorio Antidoping, Federazione Medico Sportiva Italiana, Rome, Italy

The illicit recourse to performance enhancing agents is perhaps as old as the sport itself: the use of plant and animal extracts to improve sport performance dates back to the origins of competitive sport, when Greek athletes competed in the ancient Olympics. Since then, evolution of doping substances and uses has been continuously progressing, finally becoming more systematic during the twentieth century, when it started to be based no longer on sorcery and alchemy, but instead on biochemistry and pharmacology.

However, the "ages of doping" can be measured not only through history, but also in different stages of our life. From teenagers (and in some instances even earlier) to the elderly, the vicious appeal of "age-specific" performance enhancing agents may sound seducing not only to sportsmen, but also to non-athletes.

This communication gives a historical overview on the evolution of doping and anti-doping along the centuries, with special emphasis on the developments recorded over the last 50 years, i.e. since the first official doping control strategies were put in place, at the 1968 Olympic Games. At the same time, the title also refers to the different forms of doping we can encounter along our lives, that are also critically outlined, in the double aim to promote a deeper understanding of the causes of their diffusion, and to develop effective strategies to control – and possibly minimize – its negative effects on the individual and on the society.

## Paper presentations III – Oral presentations

### Projekt elcyklist – ett motivationsperspektiv

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#### Introduktion

Cykelpendling till jobbet har även visat sig medföra stora hälsoeffekter. I en studie som omfattar 260 000 personer i en femårsperiod visar att cykelpendling är relaterat till 41 % lägre total mortalitet jämfört med bil eller kommunala transporter. Det relaterades även till 52 % lägre risk att dö av hjärt-kärlsjukdom och 40 % lägre risk att dö av cancer och nästan hälften så stor risk (45 %) att utveckla dessa sjukdomar över huvudtaget. Resultaten är kontrollerade för kön, etnicitet, ålder, rökning, BMI, övrig fysisk aktivitet, stillasittande tid, kostvanor samt risker kopplade till trafikolyckor. Deltagare som diagnosticerats med hjärt-kärlsjukdom eller cancer exkluderades från studien. Vidare visar en svensk studie att om alla Stockholmare med mindre än 30 minuters cykelväg till jobbet skulle cykla istället för att köra bil, kan 449 levnadsår adderas i Stockholmspopulationen varje år, enbart relaterat till minskade utsläpp. Då har man ändå inte räknat med de potentiella hälsoeffekter som kan adderas på grund av ökad fysisk aktivitet och minskat stillasittande. Halmstad Kommun har tillsammans med en lokal elcykeltillverkaren sedan 2014 drivit ett projekt som ska stimulera medborgarna till aktiv transport i syfte att främja invånares hälsa genom ökad fysisk aktivitet, samt att minska biltrafik, utsläpp och buller i centrala Halmstad. Projektet gäller i första hand bilpendlare som under tre månader fått låna en elcykel och de har under åren 2014-2017 engagerat ca 500 deltagare.

#### Syfte & teoretisk ram

Syftet med studien är att studera motivationsfaktorer till att använda elcykel som transportmedel framför passiv transport (bil, buss) baserat på självbestämmandeteorin (Self-determination theory).

#### Metod

I en första omgång har 8 djupintervjuer genomförts på deltagare i Projekt Elcyklist för att undersöka bakomliggande motivationsfaktorer såsom hälsoskäl, ekonomiska faktorer och miljöhänsyn genom semistrukturerade intervjuer. Studien är godkänd av lokala Etikprövningsnämnden i Lund (dnr. 2016/1062). Intervjumaterialet analyseras genom kvalitativ innehållsanalys för att utforska och beskriva slutanvändarnas attityder, beteenden, mål och barriärer avseende deras motivation till fysisk aktivitet och motion rent generellt såväl som specifikt riktat mot deras elcykelanvändande.

#### Resultat

De preliminära analyserna visar att deltagarna upplevde att elcykeln underlättade för dem att cykla mer än de gjort tidigare. Förutom att använda cykeln som transportmedel till arbete eller skola användes den även för att handla eller ta sig till fritidsaktiviteter. Deltagarna valde att använda elcykeln som transportmedel av hälsoskäl (för att få vardagsmotion), av ekonomiska skäl (slippa ha två bilar, minska bensin och parkeringskostnader) och av miljöskäl (för att minska påverkan på miljön). De som använde elcykeln regelbundet upplevde bland annat att deras kondition blivit bättre samt att de fått mer energi och ork i vardagen jämfört med tidigare.

#### Diskussion och slutsatser

Det kan vara en stor utmaning att ta steget från passiv till aktiv transport genom att börja cykla till jobbet istället för att ta bilen och en elcykel skulle kunna underlätta en sådan övergång. Förhoppningen med studien är att kunna identifiera framgångsfaktorer och bakomliggande mekanismer för att förstå hur samhällsinsatser av den här typen kan designas för att uppnå optimala effekter på såväl medborgar- som samhällsnivå.

## Elite athlete career as a bridge to entrepreneurship

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### Introduction

Entrepreneurship is one of the intrinsic careers for athletes. The integration of studies and elite athlete training is a challenge. For example, educational institutions have strict requirements for attendance and the study time is limited. However, a sports career produces a wide range of skills that can be utilized in studies.

### Aim and theoretical framework

The objective of this study is to identify the entrepreneurial intentions of elite athletes, and to understand the significance of these intentions as an opportunity for self-employment. In literature, there is limited research on entrepreneurs with a sport background. Sport is an entrepreneurial process because innovation and change are key elements of sport. Changes in sport have necessitated entrepreneurship. (Ratten 2011). The elite athlete's career and growth to mastery are regarded as coherent phenomena which enhance a variety of capital resources for working life and entrepreneurship. (Pekkala 2011). Elite athletes and entrepreneurship have been examined earlier in studies through forms of capital, such as human, social and economic capital (Conzelmann & Nagel 2003; Tesone et al. 2004; Neergaard & Ulhoi 2005; Coalter 2007; Kamberidou & Patsadaras 2007; Perks 2007; Madsen et al. 2008; Jones & Lavalley 2009; Allen et al. 2010; Pekkala 2011; Neergaard & Krueger 2012). The skills developed by sports have also been studied (Lavalley & Wylleman 2000; Mayocchi & Hanrahan 2000; Kabush & Orlick 2001; Neergaard & Krueger 2005; Bruner et al. 2008; Dieffenbach et al. 2008). Mentoring, career transition and counselling are also studied and modelled (Lavalley & Wylleman 2000; Stambulova et al. 2015). In this research, the essential theoretical perspectives include entrepreneurship as a continuous process, career transition, previous knowledge and networks, as well as skills development. In this study, sport-based entrepreneurship is defined as when a person with a background in sports responds to an opportunity to create value and become an entrepreneur.

### Method

The aim of this qualitative research is to understand the phenomena surrounding entrepreneurship focusing on the elite athlete career as the bridge to entrepreneurship. The research approach is abductive. The study started by a semi-structured online inquiry sent to national/international top athletes involved in entrepreneurship studies and interested in entrepreneurship as a career ( $n = 40$ ), with the aim to gain a deeper comprehension of the entrepreneurship phenomena and a more detailed insight for further study. Based on the analyses and results, six athletes were invited to face-to-face interviews.

### Results

An elite athlete career seems to boost intentions for entrepreneurship. For elite athlete entrepreneurs, the business idea often stemmed from one's own career, and innovation was found to form an integral part of a sports career. The business idea was often related to one's own career as well, but the elite athletes also highlighted the need for creating something new.

## Understanding elite sport risk behaviour from a career perspective: A prospective case study with Olympic hopefuls

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### Introduction

International competitions such as the Olympic Games are prestigious events in high performance sport. While participation is a prime career objective for many athletes, only few are able to maintain top performance and health in the lead up to the event. Current research indicates that a variety of factors may affect Olympic hope-

fuls' health and well-being, including athletes' own risky health behaviour for the sake of athletic performance (e.g. competing while injured). Little is known, however, how athletes negotiate such elite sport risk behaviour in a critical career phase and on research methodologies that capture their interrelation.

### **Aim and theoretical framework**

In this presentation, we address these gaps in knowledge. Drawing on the sociological theory of 'careership' (Hodkinson & Sparkes, 1997), we frame health-related choices as career decision-making which is longitudinal in nature and shaped by athletes' individual, social and career contexts. Based on this understanding, we describe the prospective, case study design we developed in order to investigate the interrelation between career progression and athletes' understanding of and decision-making for or against risk-taking.

### **Method**

Data on ten Swedish elite athletes who aimed to qualify for the Olympic Games in 2016 were collected between fall 2015 and fall 2016. We employed multiple methods, including a career background questionnaire; weekly online-surveys; three semi-structured interviews (two prior to the competition and one post-competition); observations of training sessions; and collection of competition results.

### **Results**

Based on the one-year long research experience, we discuss challenges of longitudinal qualitative research in elite sport (e.g. participant retention, timing of data collection with training and competition; and lack of analytical protocols) and outline gains in knowledge through a prospective multi-method design. The longitudinal set-up allowed, for example, to follow athletes' health-related decision-making in 'real time' and to identify career conditions and consequences thereof. Further, participating athletes were able to draw benefits from repeated data collection by actively using the interviews for reflection on the ongoing career phase and the weekly online-survey to self-evaluate their well-being and health behaviour.

### **Discussion and conclusions**

The study highlights the importance career dynamics play in athlete health, and the value longitudinal qualitative research has for a more holistic understanding of this topic. While engaging elite athletes in research during the lead-up to a major competition has been critiqued as ethically problematic (e.g. Gould & Maynard, 2009), the experience with the present prospective case study leads us relativizing this claim and to argue for a better understanding of the potential benefits athletes and sport federations gain from participating in such studies. We conclude with recommendations for future research.

## **En ridsport för alla?**

Susanna Hedenborg  
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### **Introduktion**

Svenska ridsportförbundets vision är "En ridsport för alla hela livet". Ridsporten är en av de största barn- och ungdomsidrotterna i Sverige, men det står samtidigt klart att 90 procent av dem som rider är flickor och kvinnor och att många av dessa har svensk bakgrund (dvs är födda i Sverige och har minst en förälder som är född i Sverige). För att kunna leva upp till sin vision behöver förbund och föreningar en bättre förståelse för hur de kan öppna upp sin verksamhet för nya grupper.

### **Syfte och teoretisk ram**

Syftet med denna studie är att öka kunskapen om hur föreningar inom Svenska Ridsportförbundet har arbetat med projekt som varit inriktade på integration. Den analytiska ramen för projektet grundar sig i en diskussion kring svårdefinierade begrepp såsom "invandrare", "flykting", "integration", "migration" och verktyget SWOT används för att begripliggöra vilka styrkor (Strengths), svagheter (Weaknesses), möjligheter (Opportunities) och hot (Threats) som föreningarna upplever. Modellen är hämtad ur ett företagsekonomiskt sammanhang, och kan

användas för omvärldsanalys och noggrann granskning av den egna verksamheten. Utifrån analysen kan organisationsutveckling bedrivas.

### Metod

I studien kartläggs Svenska Ridsportförbundets arbete med integrationsprojekt inom Handslaget och Idrottslyftet. Särskilt fokus har varit en analys av 51 projekt som bedrivits på 38 ridskolor under tidsperioden 2013–2015. För dessa projekt har ansökningar och återrapporter analyserats. Vidare har intervjuer gjorts med sju representanter för ridskolor som bedrivit ”hållbara” projekt (definierade som projekt som erhållit medel vid flera tillfällen). Frågor kopplade till begreppsdiskussionen samt SWOTen har styrt analysen.

### Resultat

Hittills har antalet projekt med inriktning integration varit få inom ridsportförbundet. Ungefär 1 procent av medlemmen inom förbundets Idrottslyftsansatser gick till dessa projekt. Drygt 8 procent av ridskolorna hade sådana projekt under perioden 2013–2015. I genomsnitt erhöll ridskolorna 20 000 kronor för att bedriva projekten. Projekten nådde en större andel flickor (60 procent) än pojkar (40 procent), men samtidigt en större andel pojkar än vad som är vanligt inom ridskolornas verksamhet. Ridsporten framhålls i projekten som unik i det att här möts djur och människor över alla gränser. Identifierade styrkor var: nya grupper introducerades; möten mellan olika grupper; lösningsorienterade föreningar som bedriver utvecklingsarbete; reflekterat förändringsarbete; och att fler pojkar lockats till ridskolan. Svagheter var: få och små projekt; för få anställda; språksvårigheter; öppnade dörrarna – men få fortsatte; homogenisering av grupperna ”vi” och ”de”. Möjligheterna var: samhällets behov av integrationsinsatser; särskilda satsningar; medial uppmärksamhet; nya samverkanspartners i lokalsamhället. Slutligen identifierades hot: konkurrens med andra föreningar; ekonomiska begränsningar; bristande kollektivtrafik; rasism.

### Diskussion och slutsatser

Studien visar både på framgångsfaktorer och hämmande faktorer för projektens måluppfyllelse. Inte minst framstår samverkan mellan olika aktörer och viljan att förändra/utveckla verksamheten som lyckade arbetssätt. I det senare ingår att lösa upp homogeniserade föreställningar om ”vi” och ”de” och att istället arbeta inkluderande (istället för att peka ut gruppen som man vill inkludera som ”annorlunda” eller ”problem”). Projektens hållbarhet hotas av projektifieringen av idrotten och att kommunerna inte förstår ridsportens särskilda villkor när det gäller anläggningar och frågor om djurhållning.

## Fysisk aktivitet och motorisk träning i förskolan

Ann-Christin Sollerhed, Kristianstad University, Sweden

Jan-Eric Ekberg, Malmö University, Sweden

### Introduktion

I Sverige var de flesta 1-5 åringarna inskrivna i förskolan hösten 2016 (84%). Under förskoleåren är fysisk och motorisk utveckling som mest intensiv, bl a utvecklas basala motoriska förmågor som ger möjlighet att interagera med omgivningen i lek, fysiska aktiviteter och senare att vara idrottslig aktiv. Förskolan har ett kompensatoriskt uppdrag att jämnar ut olikheter från hemmiljön, vilket också gäller fysisk aktivitet och motorisk förmåga. Barn ska i förskolan möta välutbildade pedagoger med kunskaper i fysisk aktivitet och motorisk träning.

Inga studier är gjorda i Sverige avseende pedagogernas attityder till fysisk aktivitet och motorisk träning, dvs hur de ser på barns motoriska utveckling, hur de uppfattar sin egen utbildning i motorisk träning samt hur de uppfattar sin kompetens att stimulera, utmana och leda barnen i motorisk träning i förskolan.

### Syfte och teoretisk ram

Syftet är att fördjupa kunskapen om förutsättningar för barns fysiska aktivitet och motoriska träning i förskolan. I detta paper presenteras några resultat från en pilotstudie med förskollärarstudenter.

### Metod

Datainsamling i pilotstudien genomfördes via enkäter bland 47 blivande förskollärare, för att utprova enkäten och få kommentarer på frågors relevans och kvalitet. I huvudstudien ska en enkätundersökning genomföras bland



blivande förskollärare i slutet av deras utbildning och bland yrkesverksamma förskollärare på 20 strategiskt utvalda förskolor i södra Sverige. Enkäten omfattar bakgrundsfrågor, frågor om utbildning, kunskaper om och förmåga att leda fysisk aktivitet och motorisk träning, attityder till fysisk aktivitet och motionsvanor, frågor om fysisk aktivitet och motorisk förmåga hos förskolebarn samt uppfattningar om motorisk träning och inom- och utomhusmiljö i förskolor de tjänstgör/har tjänstgjort i. De statistiska beräkningarna har gjorts i SPSS. Signifikansnivån är satt till  $p < 0.05$ .

## Resultat

Bland studenterna ansåg 62% ( $n=47$ ) att kunskapsområdet motorik sågs som viktigt i förskollärarytbildningen, 53% ansåg att kunskapen om motorik var god bland personal i förskolan, 49% ansåg att förskolor arbetade medvetet med främjandet av fysisk aktivitet och motorisk förmåga i förskolan, 65% ansåg att föräldrar ser motorisk förmåga som betydelsefullt för sina barn. När det gällde uppfattningar om egen kompetens och utbildning så ansåg 87% att de var mycket kompetenta att främja barns fysiska och motoriska utveckling medan 53% ansåg att de fått gedigen förmåga att arbeta med barns fysiska aktivitet och motoriska förmåga under sin utbildning till förskollärare. En större andel bland dem som ansåg att de var kompetenta att leda, ansåg att utbildningen gett dem en gedigen förmåga att arbeta med barns fysiska och motoriska utveckling än de som inte ansåg sig vara kompetenta (61% resp 100%;  $p=0.007$ ). När det gällde egen fysisk aktivitet uppgav 45% ( $n=47$ ) att de i stort sett aldrig motionerade själva, 28% motionerade en gång i veckan och 27% två eller fler gånger i veckan.

## Diskussion och slutsatser

Svaren på enkäten i pilotstudien kommer att analyseras vidare. Den inledande analysen genererar flera intressanta frågor, bl a avseende egen kompetens och hur studenterna ser på utbildningen när det gäller fysisk aktivitet och motorisk förmåga. Ungefär hälften av studenterna ansåg att deras utbildning gav dem en gedigen förmåga att arbeta med barns fysiska och motoriska utveckling, vilket innebär att hälften anser att utbildningen gett dem brisfällig kunskap. Samtidigt ansåg nästan nio av tio studenter att de själva hade mycket hög kompetens att främja barns fysiska aktivitet och motoriska förmåga. Frågan är om deras kompetens är reell och var de i så fall tillägnat sig den när så stor andel anser att utbildningen inte gett dem den. Nästan hälften av studenterna uppgav att de inte var fysiskt aktiva för egen del vilket också genererar frågor om deras eget intresse och habitus för fysisk aktivitet och motorisk förmåga och om det i sin tur påverkar möjligheter för barn att vara fysiskt aktiva och utveckla motoriska förmågor i förskolan.

## Symposium II – Oral Presentations

### Symposium Sport psychology: Psychological perspectives on sport injuries

Urban Johnson

Centre of Research on Welfare, Health and Sport, Halmstad University, Sweden

Participation in competitive sports is, for the athlete, associated with high physiological, biomechanical, and psychological demands. Difficulties in coping with these types of demands are related to increased risks of becoming injured. Sport injuries are ubiquitous and represent substantial economic, health, personal, and community costs. In Europe approximately 4.5 million athletes are annually treated for sport injuries (Kisser & Bauer, 2010). Severe sport injuries are related to negative emotional responses, such as sadness, anger, and depression (Wiese-Bjornstal, 2010) and decreased psychological and physiological well-being (e.g. Putukian, 2016). Moreover, recent research has conceptualized some sport injuries as career changing events that can have substantial impact on athletes' careers and trajectories (Ivarsson, Stambulova & Johnson, 2016). Thus, psychological perspectives on sport injuries affect both the wellbeing of the athletes, the close relationships that surrounds the injured athlete, but also the nearby sports community. The current symposium reviews these aspects from several points of views. Firstly, Dr. Tranaues and her colleague's present baseline data from a multi-discipline prospective cohort study of young female football players in academies and psychological similarities and differences between groups of injured (overuse) and uninjured players. Secondly, Dr. Moesch reviews the literature and draws conclusions about potential benefits of adopting mindfulness-and acceptance-based interventions to help injured athletes handle negative emotions and thoughts caused by a severe sport injury. Thirdly, B.Sc. Martin and colleagues, present data from a meta-analysis about the relationship between perceived social support and cognitive and behavioural responses to sport injuries and psychological/physiological rehabilitation outcomes. Fourthly, M.Sc. Edvardsson explores and touches the boundaries where Western psychology meets Buddhist philosophy in the context of sport injuries, health, and wellbeing and sport psychology practise. Finally, Dr. Bunke presents the theoretical framework "Health Action Process Approach" as an example of a theory which focuses on initiation and maintenance of behaviour change that has been used, among other things, in relation to an injury preventive exercise program (FIFA 11+) in female youth soccer.

### Psychological factors and overuse injuries in young female football players

Ulrika Tranæus, GIH, Karolinska Institutet, Sweden

Lucas Alriksson, Skandinaviska Naprapathögskolan, Sweden

Urban Johnson, Centre of Research on Welfare, Health and Sport, Halmstad University, Sweden

Eva Skillgate, Karolinska Institutet, Sweden

#### Introduction

Injuries in adolescent female football is common, and previous research reported psychological factors (e.g. stress, personality, coping) as possible risk factors for traumatic injuries. Overuse injuries represents a sizeable amount of all injuries, however, their psychological risk factors are neither surveyed nor well defined. It is suggested that e.g. stress, personal factors and coping may influence the risk for overuse injuries.

This study presents preliminary results from baseline fall 2016, in an ongoing prospective cohort study that is a collaboration between epidemiology, sports medicine and sport psychology aiming to identify risk factors for injuries in adolescent female football players, Karolinska football Injury Cohort.

#### Aim and theoretical framework

The aim of this study was to compare psychological factors between injured and uninjured young female football players at baseline.

#### Method

This cross-sectional study was part of a multi-discipline prospective cohort study aiming to include 600 female

football players in academies, 13-16 years old during 2016-2019. At baseline, demographic, physiological and psychological data was gathered. The psychological instrument consisted of Brief COPE, Passion scale and a single-item question regarding perceived stress. To capture injuries and physical complaints the OSTRC Overuse Injury Questionnaire and supplementary questions regarding e.g. exposure time was included to record eventually injuries or physical complaints the last two months retrospectively. The questionnaire also contains multiple-choices questions concerning pain and performance. The definition of injury was a substantial injury or physical complaints that cause total absence or reduced participation from football. T-test for independent samples was used for analyses.

## Results

To this study, 100 participants were included during fall 2016. For the analyses the participants were divided into two groups: injured at baseline or the last two months ( $n=49$ ) or uninjured ( $n=51$ ). The mean age was 13.8 in the injured group and 13.9 in the uninjured group. From the 14 subgroups in Brief COPE, "Active coping" was the only one variable that differed statistically significant ( $p=0.03$ ) between the injured ( $m=5.95$ ,  $SD=1.29$ ) and uninjured players ( $m=6.51$ ,  $SD=1.28$ ). The values on the Passion scale measuring obsessive and harmonious passion at baseline did not differ statistically significant between the groups. The values in the perceived stress did not show statistical differences (uninjured  $m= 2.7$ ,  $SD=1.05$ ; injured  $m= 3.08$   $SD=1.05$ ,  $p= 0.13$ ).

## Discussion and conclusions

The comparison of psychological factors in the groups of injured and uninjured players showed that the uninjured group scored higher in active coping, meaning that they used strategies to cope with stress factors which is in line with previous research and hypothesis. Passion has been suggested to be a possible risk factor to overuse injuries. The participants in this study were young and might not have developed strong passion to their sport and athletic identity. These results will be followed by further analyses of the prospective data in this project.

## "Be mindful even though it hurts": The potential benefit of mindfulness- and acceptance-based interventions in sport injury rehabilitation

Karin Moesch

Centre of Research on Welfare, Health and Sport, Halmstad University, Sweden  
Swedish Sports Confederation

## Introduction

Getting injured often causes psychological reactions such as depressive symptoms or anxiety (see for an overview Brewer & Redmond, 2017). Such reactions not only compromise the athletes' wellbeing, but can also impact the athlete's rehabilitation behaviour, the overall outcome of the rehabilitation, and the fact if he/she returns to sport (e.g., De Heredia et al., 2004). A recent meta-analysis showed that negative affective responses had a negative effect on successful return to sport (Ivarsson et al., 2017). Thus, it seems appropriate to integrate psychological interventions alongside the physical rehabilitation. Reviews supported the effectiveness of psychological interventions (mostly based on Psychological Skills Training or biofeedback) during rehabilitation of sport injury to reduce the negative emotional responses and improve behavioural responses during rehabilitation (Schwab Reese et al., 2012). However, several authors call for the use of other interventions, such as mindfulness- and acceptance-based interventions (MABI).

## Aim and theoretical framework

The aim of this presentation is to highlight the potential benefit of adopting MABIs, such as mindfulness, Acceptance Commitment Therapy (ACT), and Mindfulness-Acceptance-Commitment approach (MAC), to help injured athletes handle the negative emotions and thoughts caused by a severe sport injury. The central feature of MABIs is to elaborate a modified relationship with internal experiences (such as thoughts, feelings, bodily sensations) rather than seeking to suppress them or change their form or frequency (as done in PST). By learning to monitor, decenter from, and accept one's inner experiences, the individual develops a healthier relationship to, and will be less affected by such internal experiences, which leaves more room to engage in valuable behaviours

that move the individual toward his/her goals. Specific focus will be laid on mindfulness interventions, as mindfulness is an integral part in all MABIs.

### Method

A thorough literature search has been conducted to find articles about outcomes of mindfulness training and about mechanisms that are related to these outcomes. Likewise, a specific search for studies done with any MABI with injured athletes and for studies investigating variables related to MABIs has been conducted.

### Results

Results from reviews reveal that mindfulness practice has a positive effect on stress, anxiety, depressive symptoms, emotion regulation, wellbeing, and on behavior regulation in adults (e.g., Keng et al., 2011), and on self-confidence, life quality and pain acceptance in non-athletic populations of adults in rehabilitation (Hardison & Roll, 2016). Mechanisms for these beneficial effects are among others monitoring, acceptance, decentering and exposure (Brown et al., 2007; Lindsay & Creswell, 2017).

Four studies have been conducted using MABIs with injured athletes. They show promising results; however, they contain methodological concerns such as short intervention length or small sample sizes. Two recent studies investigated variables that are central in MABIs, acceptance and psychological flexibility. Higher levels in these variables were related to better adherence and emotional response during injury rehabilitation.

### Discussion and conclusions

Based on the results above, it seems appropriate to adopt MABIs in sport injury rehabilitation. Given the fact that MABIs have become increasingly popular for performance enhancement in elite sports, it seems time to integrate and scientifically study these approaches more thoroughly in the context of sport injury rehabilitation.

## A meta-analysis on the relationship between social support and psychological and behavioral outcomes during sport injury rehabilitation

Simon Martin

Ecole Normale Supérieure de Rennes, Department of Sport Sciences and Physical Education, Rennes, France

Andreas Ivarsson and Urban Johnson

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Ulrika Tranaeus

Performance and Training Unit, The Swedish School of Sport and Health Sciences GIH, Sweden

Andreas Stenling

Department of Psychology, Umeå University, Sweden

Magnus Lindwall

Department of Psychology, University of Gothenburg, Sweden

### Introduction

Injury incidence remains high in sports. In regards to the individual athlete, an injury can have negative impact on an athlete's career development both in the short term as well as from a long-term perspective. In a short-term perspective, a number of different potentially stressful cognitive- as well as emotional reactions that injured athletes experience have been identified in previous research. In a long-term perspective, several studies have shown that sport injuries, in a substantial number of cases, will decrease the athlete's perceived psychological, as well as physiological well-being.

Given that injuries can have a substantial negative impact on the individual research into how we successfully can help injured people cope with the stressful situation of being injured and facilitate a successful return to sport is warranted. One variable that might help an injured athlete to cope with stressful situations (such as injury) is

social support. It is, therefore, warranted to perform a meta-analysis on published quantitative studies that have explored the relationships between social support and psychological and behavioral responses, as well as rehabilitation outcomes.

### Objective

The main objective of this meta-analysis was to examine the effect sizes of the relationships between perceived social support and psychological (i.e., adaptive responses, potentially distressing emotional responses, intrinsic motivation) as well as behavioral responses (i.e., adherence to rehabilitation) to sport injuries. A second objective was to examine the effect sizes of the relationships between perceived social support during rehabilitation from a sport injury and rehabilitation outcomes (e.g., recovery time, recovery progress, joint laxity).

### Methods

Electronic databases and previous published review articles were searched to identify relevant studies. The review resulted in 10 published studies containing 83 effect sizes. All results were reported using mean weighted effect sizes and corresponding 80% confidence intervals.

### Results

The result from the meta-analysis showed social support to have positive and statistically significant relationships with adaptive responses ( $r = 0.22$ , 80% CI [0.19, 0.26]), intrinsic motivation ( $r = 0.23$ , 80% CI [0.13, 0.31]) and adherence to rehabilitation ( $r = 0.17$ , 80% CI [0.12, 0.22]), and a negative statistically significant, but weak, relationship with potentially distressing emotional responses ( $r = -0.13$ , 80% CI [-0.16, -0.09]). Moreover, social support had a weak and not statistically significant relationship with recovery outcomes ( $r = 0.07$ , 80% CI [-0.03, 0.16]).

### Conclusions

The results showed social support to be an important variable to consider improving adaptive responses and intrinsic motivation among injured athletes. Also social support seems to be associated with high levels of adherence to treatment during sport injury rehabilitation. Coaches and physiotherapists should, therefore, focus on establishing a relationship with the injured athlete, based on empathy, to increase the odds for a successful rehabilitation.

## Is there room for the Buddha in the applied sport psychology service? Mindful reflections of sport injuries, health and wellbeing from a sport psychology practitioner

Arne Edvardsson

Centre of Research on Welfare, Health and Sport, Halmstad University, Sweden

### Introduction

Even though historically there have been early case examples of successful applications of Eastern philosophy in Western sport psychology settings, it is only recently that Eastern philosophical traditions have started to become integrated into different Western sport psychology perspectives. Approaches such as being mindful, staying non-judgmental, and being compassionate are today frequently applied by many practitioners and are often included in different academic and training courses. This integration has received support thanks to neuroscience where concepts such as empathy and attunement now can be measured and analyzed. From a sport injury perspective, interesting insights regarding health and wellbeing can be gained from integrating these philosophies and scientific approaches.

### Aim and theoretical framework

This presentation explores and touches the boundaries where Western psychology meets Buddhist philosophy. The aim is to highlight the advantages and the risks of stepping over this thin line into the land of the Buddha, and, at the same time, to develop a framework that can help practitioners discuss health and wellbeing with clients.

## Method

A total of five Swedish participants were included in this study. The common ground for these athletes, musicians, and other clients was that they were all seeking help from the same sport psychology practitioner. All athletes had encountered sport injuries in some way. Structured DART notes written by the sport psychology practitioner were analyzed into different themes and subthemes.

## Results

An applied framework was developed from the themes and subthemes and how Buddhist concepts and metaphors were used in service and how they were received by participants. Important quotes were highlighted and integrated into this framework to give concrete examples from the emerging themes.

## Discussion and conclusions

This framework can be used as a roadmap to help guide sport psychology practitioners starting out on a path of Buddhist philosophy. The author discusses what the common grounds of Eastern and Western philosophy are and also where work is needed to bridge different cultural and philosophical viewpoints. Common challenges related to health and wellbeing is discussed together with concepts such as non-self, suffering, and relatedness.

## Behavior change – a key aspect of injury preventive training in youth sport

Sofia Bunke

Department of psychology, Lund University, Sweden

Eva Ageberg

Department of Health Sciences, Lund University, Sweden

## Introduction

Injury preventive exercise programs in community sport are of great importance to increase the well-being and engagement of youth in regular physical activity, exercise and sport from a lifespan perspective. In addition, effective Injury preventive exercise programs will indirectly contribute to enhanced sports performance; however research is needed to better understand the strategies to successfully implement injury prevention training routines for young athletes within the real-world sport club environment.

Systematic reviews and meta-analyses which focus sport injury prevention studies underline the inadequate use of theory-based methods to increase the effectiveness of such behavior change interventions. To bridge the “intention-behavior gap”, there has been a call for applying theories that include strategies to maintain behavior change. The theoretical framework “Health Action Process Approach” (HAPA) is an example of a theory which focuses on initiation and maintenance of behaviour change. As a part of this presentation, the HAPA framework will be presented. The HAPA framework has been used in various focus areas with different methodological approaches and age groups. Also, one exploratory study has examined the first part of the HAPA model (motivational stage) in relation to an injury preventive exercise program (FIFA 11+) in female youth soccer. In general, the results of these studies support the application of HAPA-informed psychological processes.

We, as a research group (I-PROTECT), have established collaboration with two handball clubs. This collaborative approach is required to combine valuable research and practice knowledge. One of our goals is to develop a sport-specific Health Action Process Approach-informed behavior change model for youth handball injury prevention training routines. Applied knowledge of theory-based behavior change processes in relation to injury preventive exercise programs within a sport club setting is highly warranted.

# Workshop I

## Practical Parasport

Peter Malmberg  
Hallands Parasportförbund, Sweden

### Introduction

The concept of Parasport, former sport for disabled, is the collective name for sports for people with disabilities. The contestants are not only divided by gender and age but also by disability and degree of disability in different classes, much like weight classes in wrestling.

During this workshop you will be given the opportunity to try to sit in a wheelchair and try to overcome obstacles encountered by wheelchair users in their daily lives. You will also try out what it's like to not see and yet sport. We do this by trying out goalball.

## Physical Education for all

Birgit Flygstrup, Byskovskolen department Asgård, Denmark  
Jette Selmer, Byskovskolen department Asgård, Denmark  
Tine Soulié, Handicapidrættens Videnscenter, Denmark

### Introduction

In this workshop we will tell about our new release *Alle til idræt* (Everyone in Physical Education): the background for it and the content of it. *Alle til idræt* is a new instructional guide that provides answers to how to organize inclusive education in the subject of Physical Education (PE) in school. *Alle til idræt* is a help for physical education teachers and educational staff who want more knowledge about how students with disabilities can participate actively in PE in school.

The material contains examples of activities for a whole school year from 1st to 9th grade with adaptations to students in different types of difficulties.

In the workshop we will show two examples of activities with adaptations from the areas of dance & expression and body knowledge. It is 'Dansefanger' (dance-catcher) and 'Akroyoga' (8th grade).

*Alle til idræt* is based on the National legislation and curriculum in PE, and presents how to create inclusive teaching from the beginning of planning to the implementation and evaluation of the activities. *Alle til idræt* at the same time provides theoretical background, which can inspire the unfolding of inclusive thinking so that it can contribute positively to the inclusive culture of the school.

*Alle til idræt* comes as a book and will also be available in electronic form. The book is the result of a multi-year collaboration between Byskovskolen department Asgård and Handicapidrættens Videnscenter, and the authors Jette Selmer, Birgit Flygstrup and Tine Soulié have deep theoretical insight and extensive practical experience in organizing inclusive teaching in PE. *Alle til idræt* are published by Handicapidrættens Videnscenter and can be ordered at [www.handivid.dk](http://www.handivid.dk). It costs 250 dkr. + Shipping.

Handicapidrættens Videnscenter is a national competence-center. The center works for active lives for people with disabilities with a special focus on: sports, physical and outdoor activities, employment and leisure time. The center disseminates knowledge: gives advises, publishes and lends books, articles, etc. In addition, the knowledge center establishes networks and participates in development projects and research. On the center's website [Handivid.dk](http://Handivid.dk) is an activity database with adapted activities. There is also access to the library, where everyone is welcome as borrowers.

## Adapted Physical Education and Health in theory and practice

Ulla Thorstensson, Peter Pettersson, and Sara Hagestam  
Pediatric Health at Kärnhuset, Halmstad, Sweden

### Introduction

The participants will try a game as we will show how to develop and adapt to suit all students. Our purpose is to show you how to think from an inclusive perspective. Our inclusive perspective is based on Peter Downs, Inger Johansson, Lena Hammar and Ross Green's research. We can also link our approach to Anders Hansen's books. We will give examples of how to think about planning and developing the game from an overall perspective. Through practical experiences and discussions, start an expanded approach. The game we will play is called the Chinese wall. The play is a good example of an activity that is easy to develop based on the students' different conditions. The game gives the opportunity to develop the following abilities: composite movements, cooperation, and space perception, ability to follow rules, check-ups, safety and consideration.

After the game ends we will reflect on the experiences. We will adapt the game based on disabilities of various kinds linked to the subject's knowledge goals. Some examples of our adaptations are: choice of materials, space utilization, and alternative paths to cross the wall, dashing dice.

## Workshop II

### Team-SWE wheelchair handball, the Swedish Handball Association

Julia Johansson  
Gothenburg wheelchair handball, Sweden

Alexander Sjöberg  
Gothenburg wheelchair handball, Sweden

### Introduction

Team-SWE wheelchair handball, the Swedish Handball Association's Handball for All is the Swedish Handball Association's adapted handball activities for people with disabilities. In addition to playing handball in a wheelchair, there are also walking handball / Special Olympics class and a ball and play school. With these three classes, people with disabilities have a place in the union's handball family.

In the workshop you will meet Julia and Alexander, who are playing from Team SWE wheelchair handball, the team that was ranked 3rd in EM 2016.

Julia and Alexander tell the story about the wheelchair handball from start-up until today. You will be given the opportunity to try-on simpler adapted handball exercises. There will be fitting and motion exercises with a ball sitting in a wheelchair. Moving the wheelchair with control over the ball, opponent and player, a new and exciting experience that creates some confusion in our brains.



## Symposium III

### The MUGI (Motor skills development as Ground for Learning) model for motor skills training for all children – a nine year intervention in the Bunkeflo project

Ingegerd Ericsson

Department of Sport Sciences, Learning and Society, Malmö University, Sweden

#### Aim

The aim was to investigate long-term effects on motor skills and scholastic performance of increased Physical Education (PE) for all children and adapted MUGI motor skills training for children in need of it.

#### Methods

All students from one school were included in a longitudinal study during nine years. An intervention group (n=129) received daily PE (5x45 minutes/week) and if needed one extra lesson of adapted motor training. The control group (n=91) had PE two lessons/week. Teachers were educated in the Motorisk Utveckling som Grund för Inläring (MUGI) model of motor skills observing and training. The MUGI model includes motor skills observations of all children at school start, information to teachers and parents, and offers of extra motor skills training. The aim is to identify children with any problems or difficulties in motor skills in order to give early support and stimulate their motor skills development. Children who need extra motor training are offered adapted gross motor skills practise under the supervision of a PE teacher in a smaller group.

Many children having motor skills problems have experienced a lot of failure when asked to do coordination or balance tasks during PE lessons. The failures are probably perceived even worse by being visible and obvious to all class mates. The MUGI model for motor skills training is based on the principle of success, i.e. the children are never asked to do things they are not good at, but instead offered tasks with the aim of automatization of skills coming earlier in motor skills development. One of the most important goals is that children feel motivated and enjoy taking part in physical activities. It is important that focus is on what the child wants to learn, that the goals are achievable, and that the child takes pleasure in practising. Since children often are very good at finding skills they need to practice, the introduction to the training often includes questions like: "What do you think would be a good skill for you to know?" "What would you like to learn?" In summary MUGI motor training focus on:

- Success instead of failure
- No training of skills the child cannot perform
- Automatization of skills in earlier development

#### Results

Both girls and boys improved in motor skills (balance and coordination) and children who had received adapted MUGI training improved the most. Scholastic performance became significantly better in the intervention group compared to the control group, 96% of the students in the intervention group compared to 89% in the control group qualified for higher education in upper secondary school. Health-economic analyses show that daily PE and adapted motor skills training in school would increase the potential production value and reduce morbidity costs. An investment in staff and premises per student of 500 Euro for all nine school years would give productivity gains and reduced morbidity costs of 4,130 Euro for every student.

#### Conclusions

Daily PE and adapted motor skills training during the compulsory school years is a feasible way to improve not only motor skills but also scholastic performance and the proportion of students who qualify for upper secondary school. The health-economic evaluation of the project shows that the investment was clearly profitable for the municipality. Based on research results, theoretical assumptions regarding the relationships between physical activity and scholastic performance are the following: Improvements and automatization of fundamental motor skills lead to increased self-efficacy and physical self-esteem, which give better prerequisites for attention and comfort in school, which lead to increased motivation to learn and to attend classes.

## Poster presentations

### Idrottsföreningars arbete med nyanlända – ledares delade upplevelser

Peter Carlman and Carina Vikström  
Karlstads University, Sweden

#### Introduktion

Detta abstract bygger på preliminära resultat från ett forskningsprojekt med syfte att studera hur idrottsrörelsens arbete med inkludering av nyanlända ungdomar realiseras i idrottsföreningars verksamhet. Mot bakgrund av den stora migrationen de senaste åren har idrotten setts som en viktig arena för att etablera individer med migrationsbakgrund i samhället. Synen på idrottens betydelse är inte minst tydlig då regeringen ger Riksidrottsförbundet (RF) 64 miljoner kronor per år under åren 2015-2018 för att arbeta med nyanlända. RF skriver själva: "Regeringen ser den kraft som idrotten är och har anslagit medel för idrottsrörelsens etablering av nyanlända." (RF, 2017).

#### Syfte och teoretisk ram

Syftet med den del av studien som presenteras i föreliggande abstract är att undersöka idrottsledares delade upplevelser av att arbeta med inkludering för att få en ökad förståelse för under vilka villkor nyanlända har möjlighet att idrotta. I projektet utgör barndomssociologi (James & James, 2004) och Sayads migrations sociologi (Sayad & Bourdieu, 2004) teoretisk referensram.

#### Metod

I projektet används en fallstudiedesign (Yin, 2007; Merriam, 1994), där distriktsförbundet Värmlandsidrotten utgör ett fall. Resultatet som redovisas här bygger på fyra fokusgruppsintervjuer med totalt 21 idrottsledare (6 kvinnor och 15 män). Majoriteten av ledarna (19 stycken) hade inte migrationsbakgrund. Ledarna representerar en stor variation av idrotter och former av föreningar från olika geografiska platser i Värmland. Ledarna valdes ut mot bakgrund av att de har arbetat med inkludering av nyanlända i sin förening och att de har fått extra ekonomiskt stöd från Värmlandsidrotten för sitt arbete.

#### Resultat

Ett genomgående tema som framträdde i resultatet var att nyanländas idrottskompetens upplevdes som det främsta hindret för deras möjligheter att idrotta i föreningarna. Idrottsledarna diskuterade att de nyanlända är på en annan "nivå", en lägre nivå, som gör det svårt att inkludera dem i föreningens ordinarie verksamhet. Det handlade då inte enbart om att de inte har deltagit i den specifika idrotten tidigare utan också om att de inte har utövat idrotten "på riktigt", på det sätt som idrotten utövas och organiseras i Sverige. Det nämndes bland annat att de mest har "lekt" idrott och inte har kunskap om exempelvis regler och taktik. Därför var mycket av den verksamhet som föreningarna organiserade olika former av temporära "prova på" verksamheter som skulle fungera som en sluss in i den ordinarie idrottsverksamheten. Analysen visade att problematiken att inkludera nyanlända i den ordinarie verksamheten hade bidragit till att utmana ledarnas föreställningar om vad svensk idrott är och vilka hinder verksamheten har för nyanlända och även andra grupper av unga med begränsad erfarenhet av traditionell föreningsidrott. Vidare bidrog det till en ökad diskussion i föreningarna om vad "ordinarie" verksamhet är och vad för strukturer "vi vill ha". Eller som en ledare sa i intervjuerna "ska vi knuffa dem över trösklarna eller ska vi sänka trösklarna".

#### Diskussion och slutsatser

Resultatet indikerar att migrationen till Sverige kan påverka ledare och föreningar att reflektera och omvärdera förutsättningarna för tillgängligheten till sin egen verksamhet och då inte enbart för nyanlända utan för barn och unga generellt. Föreningarnas arbete med nyanlända har uppmärksammat ett behov av en ny organisering av deras idrott för att sänka trösklarna och öka tillgängligheten till föreningens verksamhet. Det gäller dock att ta hänsyn till att föreningarna i studien aktivt har sökt medel för sitt arbete och också fått medel beviljade i dialog med Värmlandsidrotten. Ledarna i studien kan därmed ha en högre medvetenhet än andra ledare från andra föreningar om idrottsrörelsens arbete Strategi 2025 (RF, 2017) om att sänka synliga och osynliga trösklar.

# Idrottslärarstudenters berättelser om möten med friluftsliv

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## Introduktion

Denna studie presenterar Idrottslärarstudenters berättelser om friluftsliv. Friluftsliv definieras av Regeringskansliet (Prop. 2009/10:238) som "... vistelse utomhus i natur- och kulturlandskapet för välbefinnande och naturupplevelser utan krav på tävling." I denna studie avses friluftsliv i skolan.

## Syfte och teoretisk ram

Syftet med denna undersökning är att studera på vilket sätt studenternas egna erfarenheter av och lärande i friluftsliv påverkar dem i mötet med det friluftsliv som sker under idrottslärarutbildningen samt de tankar studenterna har om friluftsliv i sin kommande yrkesroll.

Studiens empiriska material analyseras utifrån tidigare forskning samt i relation till Thomas Ziehes teori om den goda annorlundaheten. Dewey, Mead och Bruner stödjer analysen utifrån erfarenhetsbaserat lärande. Den goda annorlundaheten (Ziehe, 1999) träder fram i lärandeprocessen som en viktig del av lärandet genom sin karaktär av något ovanligt och skilt från det vardagliga. Fyra p:n är centrala: personer, platser, procedurer och processer.

## Metod

Studiens metod är narrativ med 22 individuella studentberättelser om möten med friluftsliv. En intervju med två lärarutbildare i friluftsliv stödjer empirin och studentberättelserna.

## Resultat

De huvudsakliga resultaten i denna studie antyder att familj, ledare och lärare är viktiga för studenterna i mötet med friluftsliv. Studenterna ser möjligheter att implementera friluftsliv i skolan som lärare i ämnet Idrott och hälsa. Resultaten är således något annorlunda än vad tidigare forskning säger; att friluftsliv i idrottslärarutbildningen är exklusivt långt ifrån verkligheten.

## Diskussion och slutsatser

Det teoretiska ramverk och analys via Thomas Ziehe (1999) i denna studie, kanske anger allmänna slutsatser för läraryrket som helhet. Mer tid, auktoritet och erbjudande av "nya" lärandesituationer behövs säkert i flera ämnen i skolan. Genom friluftslivet synliggörs detta tydligt i denna studie. För att inte undervisningen i friluftsliv i skolan endast ska handla om friluftsteknik så blir tidsaspekterna viktiga för undervisningen i friluftsliv, även på högskolan. Att öva, ha tid att öva och göra nya erfarenheter blir viktigt.

Den tidigare forskningen (Backman, 2010) pekar på att friluftslivet i idrottslärarutbildningen är exklusivt och svårt att iscensätta när studenterna kommer ut i arbetslivet. Detta uppfattar jag inte som lika framträdande i denna studie. Kanske gör vi olika på de olika lärosätena? Den tidigare forskningen börjar bli några år gammal. Med en läroplan från 2011 (och studenter som gått i grundskola/gymnasium med denna) och med lokalt snävt ekonomi har också friluftslivet på idrottslärarutbildningen behövt "komma närmare". Kanske inte geografiskt men innehållsmässigt, med kortare tid för genomförande än tidigare, mindre lärarresurser och mindre "omrökning" i upplevelsen av friluftslivet. Konsekvenserna är att studenter får öva mindre och får kortare upplevelser. Samtidigt visar studien att det friluftsliv som genomförs under utbildningen upplevdes som närmare det enkla friluftsliv som efterfrågats i tidigare forskning. I sin förlängning blir därför friluftsliv överförbara till skolan. Studenterna i denna studie menar att lärarna är viktiga i mötet med friluftsliv. Det viktiga mötet kan ge lärarutbildarna möjlighet att påverka studenterna på ett närmare sätt än det som är möjligt i en föreläsningssal. Att komma närmare lärandeprocessen och synliggöra ämnet och olika perspektiv av detta. Lärarutbildarens val av plats för undervisningen visar sig också i denna studie ha betydelse. Ett miljöombyte och en annorlunda plats för undervisning och "överföring" som Ziehe nämner (1999) är viktiga implikationer för en lärarutbildare. Samma gäller troligtvis lärare i skolan och våra studenter kommande val för undervisning i sitt blivande yrke som lärare i idrott och hälsa.

## Hinder och möjligheter för hälsofrämjande arbete i skolan

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### Introduktion

Hälsofrämjande arbete kan ha en inverkan på ungas välmående och inte minst påverka deras framtida hälsa. Skolan, där de flesta barn tillbringar en stor del av sin vakna tid, är en betydelsefull arena – en miljö som kan bidra till en hälsosam livsstil (Heat el al 2012; Mura et al., 2015). Att genomföra, stärka och utveckla hälsofrämjande insatser inom skolans värld fordrar ofta mer arbete och ökade resurser, vilket resulterar i att skolans lärare tenderar att välja bort den hälsorelaterade undervisningen till förmån för andra ämnen (Hoelscher et al., 2004). Detta kan delvis förklaras av brist på tid, motivation, kunskap och intresse. Den svenska regeringen har nyligen gett Skolverket i uppdrag att utreda hur man bör arbeta för att alla barn i skolan ska kunna erbjudas fysisk aktivitet varje dag (Regeringskansliet, 2017). Vem som kan och bör ansvara för att hälsouppdraget i skolan genomförs, och på vilket sätt det hälsofrämjande arbetet bör bedrivas för barnens bästa, är alltså fortfarande oklart.

### Syfte och teoretisk ram

Syftet med studien var att utforska ett longitudinellt "hälsocoachprojekt", som har bedrivits på en grundskola HT2010-VT2013, och därigenom bidra med kunskap om faktorer som kan vara värdefullt att ha kännedom om inför en implementering av ett hälsofrämjande arbete, med fokus på fysisk aktivitet, i skolan. Studiens teoretiska ramverk utgår från Youth Physical Activity Promotion Model (YPAPM), men med ytterligare ett tillägg – en organisatorisk komponent – från Precede-proceed model (Green & Kreuter, 1991, 2005). Modellen har också stärks av teorier kring hälsofrämjande arbete.

### Metod

För denna studie valdes en fallstudiedesign. Detta för att på ett givande sätt fånga in information om deltagares upplevda erfarenheter och känslor av en situation (Cohen, Manison & Morrison, 2007; Yin 2014). Inom studiens valda fallstudiedesign har kvalitativa intervjuer genomförts med lärare, hälsocoach, rektor och skolchef. Analysen har utgått från kvalitativ innehållsanalys (Graneheim & Lundman (2004).

### Resultat

I resultaten framkom betydande faktorer som upplevdes ha påverkat projektets utfall och som därmed ansågs vara värdefull kunskap för framtida hälsofrämjande insatser. För det första påtalades behovet av utökad tid för denna typ av uppdrag, då tiden många gånger varit för knapp för att både hinna planera och bedriva hälsofrämjande aktiviteter. Dessutom saknades tillräckligt med ekonomiska resurser och stöd ifrån skolledningen och då framförallt ifrån rektorn, vilket flera respondenter menade bör ses som den huvudsakliga nyckelpersonen för en hållbar verksamhet över tid. Därtill framhölls vikten av samarbete, det vill säga positiv support ifrån klasslärare och övrig skolpersonal för att hälsofrämjande verksamhet ska kunna bli lyckosam.

### Diskussion och slutsatser

Utifrån denna studies resultat råder det inga tvivel om att det behövs ytterligare personella resurser i skolan för att kunna främja barns fysiska aktivitet (Cardon, et al., 2012). Vidare krävs det att skolchefen och rektorn är stödjande och hjälper till att skapa goda förutsättningar för att hälsocoachen ska kunna göra ett fullgott jobb. Coachen kan därigenom arbeta med de "nycklar" som behövs för att skapa de hälsofrämjande aktiviteter som barnen efterfrågar för att motiveras till att bibehålla och öka den fysiska aktiviteten under skoldagen. Kanske är de största hoten för ett hälsofrämjande arbete att skolan inte har tillräckligt med ekonomiska resurser för att kunna frigöra tillräckligt med tid, och dessutom är helt i händerna på hur skolledningen värderar insatsernas betydelse för unga elevers livslånga hälsa.

# Physical activity among children with Down's Syndrome

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## Introduction, aim and theoretical framework

About 150 children with Down Syndrome (DS) are born in Sweden every year. According to the Swedish National Sports Confederation, these children have the right to play sports and to be physically active like other children. Sports for children should be based on children's own needs and circumstances and take into account of the variations in development. Children with DS have been shown to have low fitness, poor motor skills, very low participation in sports activities and a high prevalence of overweight (Whitt-Glover et al, 2006). The aim of the study was to investigate sports habits and physical activity (PA) among children and adolescents with DS in the age 8-18 years in Sweden.

## Method

Information was obtained by a questionnaire performed among families with children with DS, all information was given by the parents. Furthermore, new additional questions focusing on PA and sports participation, attitudes and living habits among both children and adults were included. The sample consisted of 310 children with DS and their families in Sweden. The statistics were carried out by using SPSS. Additional information on children's PA was given in written narratives. The written information was analyzed with qualitative text analyses.

## Results

Overall activity patterns among children with DS seemed to be quite similar to the patterns among other children without disabilities. A polarized picture emerged in which some were very active and some were completely inactive. Relationships between parents' own level of PA and children's activity could be shown, as well as associations between parental involvement in the activities and children's activity levels. The parents expressed the difficulties children with DS have to participate in sports together with other children. Three main areas could be identified as barriers. 1. Time consuming. The parents stated that it was much time consuming to organize opportunities for children with DS to engage in sports activities in the family situation. 2. Characteristics of the children. The children are slow and sometimes difficult to motivate which take a lot of effort. They also have physical problems, for example poor motor skills, perceptual difficulties, poor movement planning which exclude participation in many activities. Some parents also indicated a lack of endurance capacity and rapid mood swings as additional factors that contributed to the difficulties. 3. Society and sports clubs. Parents stated that there were few possibilities for PA which are manageable for children with DS offered by the society and sport clubs. Parents didn't experience any negative reactions from other children without disabilities or their parents when children with DS participated in sports activities with other children. However, they had a feeling that the children with DS slowed down the tempo for the whole group.

## Discussion and conclusions

The results highlight the barriers that parents of children with DS experience as detrimental for how much PA children with DS can undertake and the effect that common characteristics associated with DS can have on maintaining an active lifestyle. Society and sport clubs seem to have a small range of activities for children with DS.

# Pain and its association to health, orthorexia nervosa, sports performance, and physical maturity in sport school adolescents

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## Introduction

In youth sports, pain is often researched from the perspective of sports injuries, but knowledge on pain not relating to acute conditions (where athletes still participate) and its impact on health status and sports performance, is limited. Nutrition plays an important role in youth sports, but orthorexia nervosa, an unhealthy fixation on healthy food, in adolescents is scarcely covered in literature. Physical maturity may differ extensively in adolescents with the same age, but the relationship between pain and physical maturity is not well studied.

## Aim and theoretical framework

The aim was to study the frequency of pain and differences in health status, orthorexia nervosa, and sports performance in 13-14 year old sport school students. A secondary aim was to study the relationship between maturity offset and pain.

A biopsychosocial approach may help explain the complexity of perceived pain and health status. Performance in sports and anthropometrics are biological measures, whereas health and behavior towards food are psychological. The social component is represented by the context of being enrolled in a sport school, with its expectations and norms. Pain can be impacted by biological, psychological and social factors, since pain involves signals in the nervous system, is a subjectively perceived sensation, and may be affected by social settings.

## Method

153 students (92 boys and 61 girls, 14 years old) completed anthropometric measures for maturity offset (height, weight, and sitting height), questionnaires (pain, EQ-5D for health status, and ORTO-15 for orthorexia nervosa), and sports performance tests (sprint, agility, countermovement jump, and grip strength).

## Results

Students were categorized into pain groups of rarely pain (17.5%), often pain (51.7%), and always pain (30.8%). Students in the always pain group reported higher pain intensity and worse health status (boys 0.81 and girls 0.76) than students in the rarely pain group (boys 0.92 and girls 1.00,  $p < 0.000$ ). The mean score for ORTO-15 was 38.5 and results did not differ between boys and girls within pain groups. Boys in the always pain group had a lower maturity offset (-0.37 vs. 0.16 years,  $p = 0.03$ ) and worse sports performance than boys with rarely pain. Girls in all groups had a higher maturity offset than boys ( $p < 0.000$ ), indicating a higher biological age. Sports performance did not differ between girls reporting rarely vs. always pain.

## Discussion and conclusions

Emphasis is constantly placed upon the role of physical activity and sport as a way of enhancing health, but one in three students reported an almost daily frequency of pain, which is concerning. Pain is common in sport school students and seems to coincide with a younger biological age in boys, but not in girls. Students with pain also re-

port a worse health status. The high prevalence of pain needs to be acknowledged by coaches in order to promote a healthy and sustainable lifestyle for youth athletes aiming for future elite careers. Our findings may also be of importance for student healthcare services. There is a need for more research regarding the applicability of the ORTO-15 questionnaire for adolescents.

## **The challenges in responding to unhealthy eating and exercise behaviours among clients: From personal trainers' views**

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### **Introduction**

Fitness gyms have become popular places for taking care of one's health. However, the presence of exercise related problems and disordered eating, tend to increase in fitness gym settings and fitness professionals are concerned. Personal trainers (PT) have a central role in promoting health as well as detecting and responding to unhealthy behaviors in the fitness gyms. The formal PT-educations are, however, in general short given the demands and responsibility that are required. Previous research has shown that responses to unhealthy behaviours are a sensitive topic. Knowledge regarding PTs views on this is limited, but important given their key role in the gym.

### **Aim**

The purpose of this presentation is to problematize personal trainers' experience regarding what influence how they respond to unhealthy eating and exercise behaviours among clients.

### **Method and theoretical framework**

This presentation draws on five focus group discussions with 14 PTs, eight women and six men, aged 23 – 47 years. The method used is an interpretative qualitative content analysis. A pedagogical perspective and specifically Lave and Wenger's (1991) concept communities of practice (CoP) is employed since it enables to elucidate contextual conditions that surround the PTs and influence their responses.

### **Results**

The tentative themes: a feeling of lacking competence and employment agreement prevents or enables responses indicates that these conditions influence and complicate whether PTs respond to a client that exhibit unhealthy eating and exercise behaviours. PTs express that a feeling of lacking competence is based on limited formal PT-education. For instance, they discuss that they do not have knowledge regarding where to assess the border between healthy and unhealthy behaviours, which makes it difficult to decide whether to intervene or not. PT's employment agreement also seems to be crucial. PT employed by the hour and having a short time work experience tend to support customers' unrealistic and unhealthy eating- and exercise goals. In contrast, PTs with a permanent position express that they respond to clients with unhealthy behaviours and also that they have a cooperation with an eating disorder unit.

### **Conclusions**

PTs responses are characterized by uncertain and evasive responses to clients exhibiting unhealthy eating and exercise behaviours. These might be, in part, due to limited education and PTs working under different contextual conditions and with varying experience. This uncertainty might indicate that they do not feel that they have enough competence. Indeed, with regard to Lave and Wenger, different employment agreements, create different

memberships of and participation in the fitness gym community that influence PTs responses. It is reasonable to assume that the PTs are not provided with enough tools to develop different ways of responding to or detecting unhealthy behaviours. These behaviours are sensitive topics and therefore PTs need to be provided with appropriate support and knowledge that allow continued professional learning and developing knowledge suited for problems they encounter and manage.

## Aktiv Student. Från fysiskt inaktiv till regelbunden motionär med studentidrott

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### Introduktion

Sveriges Akademiska Idrottsförbund beslöt att göra något för de studenter som är fysiskt inaktiva baserat på en rapport från SFS om studenters levnadsvillkor.

### Syfte och teoretisk ram

Syftet var att få fysiskt inaktiva studenter att bli regelbundna motionärer och uppnå varaktiga förändringar i motionsvanorna. Genom att använda Motiverande samtal engagerades studenterna att aktivt delta i förändringsprocessen.

### Metod

Kriteriet för att få delta i kampanjen var att deltagarna skulle klassificeras som stadium 2 (är fysiskt inaktiv men vill bli aktiv) enligt den transteoretiska modellen. Projektperioden pågick mellan 8-12 veckor med två fysiska aktiviteter per vecka och föreläsningar om hälsa och välbefinnande. De motionsaktiviteter som erbjöds var enkla och ingick i idrottsföreningens ordinarie utbud för att underlätta att studenterna skulle fortsätta att vara fysiskt aktiva även efter kampanjperioden.

Den röda tråden under projektet var att successivt öka deltagarnas självständighet och ansvarstagande för sitt motionerande. Projektledarna utbildades i "Motiverande samtal" (MI) och har använt den tekniken såväl vid de inledande intervjuerna som vid de uppföljande samtalen med deltagarna. Självständigheten övades bland annat genom att deltagarna under de fyra sista veckorna av kampanjen, utöver den gemensamma gruppaktiviteten, varje vecka fick välja en ny fysisk aktivitet att delta i. Målsättningen var också att hjälpa studenterna att komma högre upp på motivationsskalan, det vill säga kunna uppleva utövandet av motionsaktiviteter som glädjefyllt (inre motivation) och inte bara ett sätt för att "gå ner i vikt" eller "orka med vardagen" (yttre motivation).

### Resultat

I kampanjen deltog 300 studenter, varav 116 besvarade samtliga enkäter före och efter kampanjen samt ett år senare. Vid uppföljningen ett år efter kampanjen var 79% fysiskt aktiva med i genomsnitt 2,9 motionstillfällen i veckan och den upplevda hälsan hade ökat från 51 till 71 på en 100-gradig skala. Enligt beräkningar vid Lunds universitet kostar en person i genomsnitt 38 000 kronor i sjukvård per år jämfört med 20 000 kronor för fysiskt aktiva personer. De samhällsekonomiska effekterna för en student, som vid 25 års ålder blir en regelbunden motionär och som lever i 85 år, blir alltså 1 080 000 kronor. Kampanjen har medfört stora samhällsekonomiska besparingar och lett till en hälsosammare livsstil för den enskilda individen.

### Diskussion och slutsatser

Projektet Aktiv student har bidragit till ökad fysisk och psykisk hälsa bland universitetsstudenter samt skapat en modell för hur soffpotatisar kan bli klyftpotatisar.



# Att kombinera elitidrott med studier - idrottande högstadielävers akademiska självuppfattning och skolengagemang

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Jan-Erik Romar, Åbo Akademi, Finland

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## Introduktion

Att hjälpa och stödja idrottare att satsa på en idrottskarriär parallellt med studier eller arbete (dubbelkarriär) har de senaste åren varit ett centralt tyngdpunktsområde inom flera Europeiska länder. (EU Guidelines on Dual Careers of Athletes, 2012). Ansvaret för barns och ungdomars idrottande och skolgång har i de nordiska länderna varit delat mellan idrottsrörelsen och skolan (Seippel, Ibsen & Norberg, 2010). Ryba med flera (2016) konstaterar att idrottare i allmänhet inte har möjlighet att engagera sig i studier och idrott utan att någondera blir lidande. I de flesta fall är det skolan som blir lidande (Eliasson, Ferry och Olofsson, 2012). Idrottsrörelsen och skolan har olika värderingar och målsättningar som styr den dagliga verksamheten. Idrottsrörelsen försöker bidra med kunskap och färdigheter som stöder individens möjligheter att nå idrottslig framgång (Ferry, 2014) och underlätta övergången till ett civilt liv efter avslutad idrottskarriär (Stambulova, Engström, Franck, Linner & Lindahl, 2014). Skolan har som primär uppgift att värna om elevernas uppväxt, hälsa och akademiska utveckling (Utbildningsstyrelsen, 2014). Att kombinera idrott med studier är krävande. (Brettschneider, 1999) Majoriteten av de idrottande eleverna har ambitioner inom både idrott och studier (Romar, 2012). En del idrottare väljer det akademiska framom det idrottsliga (Amara et. al. 2004) medan andra fokuserar på det idrottsliga och försummar de akademiska studierna (Cosh & Tully, 2014). Tidigare forskning kring idrottande elevers skolgång har fokuserat på att mäta elevers välmående och motivation (Stoeber & Rambow, 2006), självskattad akademisk förmåga (Valentine, Dupois & Cooper, 2004), studieframgång (Aljohani, 2016), faktorer som påverkar skolgång (Comeaux, Harrison & Plecha, 2006) och faktorer som predicerar skolframgång (Valentine, Dubois & Cooper, 2010). Målgruppen för studierna har främst utgjorts av gymnasieelever eller äldre studerande och fokus har legat på att utreda hur en eller flera faktorer påverkar skolframgång. (Kertsjan & Topic, 2017). Det finns ett behov av att studera idrottande högstadielävers förhållningssätt till skolgång, skolengagemang och akademiska självuppfattning.

## Syfte och teoretisk ram

Syftet med artikeln är att utgående från akademisk självuppfattning och skolengagemang identifiera akademiska profiler bland idrottande högstadieläver. Studiens andra syfte är att utreda hur elevernas bakgrund, kontextuellt stöd, individuella egenskaper och framtida karriärsambitioner korrelerar med de akademiska profilerna. Studien har sin teoretiska förankring i Bronfenbrenners (1979) ekologiska systemteori. Enligt Bronfenbrenners ekologiska systemteori påverkas eleven av strukturer på flera nivåer. Individen finns längst in i strukturerna och runt om individen finns stödjande mikrosystem.

Utifrån studiens syfte har två forskningsfrågor formulerats:

- Hurdana akademiska profiler kan urskiljas bland idrottande högstadieläver?
- Hur korrelerar elevernas bakgrund, individuella egenskaper, akademiska karriärsambitioner och kontextuellt stöd med de akademiska profilerna?

## Metod

Målgruppen för studien är idrottande högstadieläver i årskurs 7 (n = 500). Eleverna rekryteras från 19 skolor runt om Finland. Som datainsamlingsmetod används elektroniska enkäter. Latent profilanalys används för att identifiera olika subgrupper av akademisk självuppfattning och skolengagemang bland idrottande högstadieläver. Akademisk självuppfattning mäts med instrumentet (SDQIII) och skolengagemang med (SEI) instrumentet. Multipel regressionsanalys används för att besvara den andra forskningsfrågan. Faktorer som i tidigare forskning visat sig relevanta regresseras mot de akademiska profiler som skapats med hjälp av den latent profilanalysen.

## Resultat

Data samlas in i början av höstterminen 2017.

## Diskussion och slutsatser

De erhållna resultaten jämförs och diskuteras med utgångspunkt i tidigare forskning och utifrån Bronfenbrenners Ekologiska systemteori.

# Nycirkussvenska och kroppen i rörelse

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## Introduktion

Mitt avhandlingsarbete befinner sig i skärningspunkten mellan två omdebatterade samhällsfrågor – migrationens betydelse och frågan om ungas hälsa och fysiska inaktivitet. I min studie skapas, genomförs och utvärderas ett undervisningsförsök där nycirkus används som metod för att främja hälsa, kreativitet och språkkunskaper. Nycirkus är en expressiv rörelseform, ofta beskriven som att allt är möjligt. Inom skolidrottsämnet är nycirkus ovanligt förekommande, och kan därför eventuellt möjliggöra för introducerandet av andra föreställningar och begrepp än de givna. Målgrupp är barn med svenska som andraspråk. Undervisningsförsöket bygger på moment som tränar balans, kondition och koordination, och svenska ord och meningar vävs in. Konkreta exempel är att röra sig runt i rummet utifrån riktningar, jobba med olikfärgade redskap och räkna tillsammans på svenska.

## Syfte och teoretisk ram

Syftet är att undersöka hur hälsa, kreativitet och språk kan utvecklas genom nycirkus. I undervisningsförsöket ska barns kreativa skapande inom idrott möjliggöras genom att deltagarna bidrar med idéer om olika sätt att röra sig. Ett led är att tillsammans med deltagarna gå bortom idrottens traditionella, givna format för att utforska vad fysisk aktivitet kan vara och bedrivas (jämf Svender 2009; Mattsson 2016). På så sätt kan undervisningsförsöket bli ett sätt för unga att påverka fysiska aktiviteter.

Det teoretiska ramverket är ännu inte fastställt. Inspiration hämtas från Merleau-Pontys tankegångar om kroppen som objekt kontra subjekt. Teori om andraspråksinläring och kroppslig kompetens kommer vara central. Studier av idrott visar att föreställningar om manligt och kvinnligt påverkar, exempelvis att flickor och pojkar lär sig vad som förväntas av dem utifrån könstillhörighet (Redelius 2002; Mattsson 2016). Därför är det relevant med ett genusperspektiv.

## Metod

Studien använder metoden aktionsforskning, som utgår från praktiskt arbete som syftar till förändring (Rönnerman 1998). Det handlar om en ömsesidig process för att förändra en verksamhet (Mattsson 2016). Ett problem med metoden är generalisering, eftersom grupper och situationer skiljer sig åt. Jag utformar undervisningsförsöket som genomförs 1–2 gånger i veckan, kontinuerligt med samma grupp under ett år. Samtidigt görs en processutvärdering, vilket innebär att projektet dokumenteras och förändras under processen, för att tillvarata deltagarnas erfarenheter och upplevelser för att delaktighet och medskapande ska främjas. I metoden ingår även intervjuer och samtal.

## Resultat

Under vintern 2013 undervisade jag brittiska elever i svenska integrerat med nycirkusträning. Det kan ses som en pilot för avhandlingsprojektet och tentativa resultat pekar på att språkinläringen underlättades. Genom att bjuda in deltagarna till medskapande och formande av aktiviteter kan vi utmana förmedlings-pedagogiken som råder i skolidrottsämnet idag, liksom i Mattssons (2016) studie.

## Diskussion och slutsatser

Nycirkussvenska kan genom att utgå från det kreativa skapandet erbjuda andra sätt att lära språk, utveckla hälsa och kreativitet. Det skulle kunna bidra till att skolan blir den plats för kreativitet och kunskap, sociala och kulturella möten som den är tänkt att vara. Undervisningsförsöket kan utgöra en del av forskning kring pedagogiska metoder som exempelvis Ericsson (2008) efterfrågar för att söka ytterligare samband mellan fysisk aktivitet och höjda resultat i skolämnen. Studien kan ligga till grund för elevers och lärares inspiration att utforska nya sätt att arbeta med rörelse, språk och kreativitet samt utgöra underlag till fortsatt diskussion om lärande, integration och hälsa.

## Agents changing the game to positive personal development in European youth sport

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### Introduction

Psytool is a project co-funded by the Erasmus+ Sport under the collaborative partnerships strand. It aims to foster positive personal development and experiences amongst young athletes. It also strives to prevent existing risks in grassroots sport participation such as violence, discrimination, intolerance, doping and match-fixing. PsyTool is led by Universidad Pablo de Olavide (Spain) and comprises a consortium of 13 organisations from across the European Union.

### Aim of the project

PsyTool's main sought outputs are:

- To create innovative educational tools based on sound sport psychology principles to promote positive experiences and outcomes in youth sport, as well as preventing existing risks
- To create knowledge about perceptions and experiences of negative behaviours and practices in youth sport and to identify good practices

### Activities

The core of the project are the Agents of Change. Agents of Change include high profiled individuals like Olympic gold medallist Nelson Evora, World Rugby's best female referee Alhambra Nievas, and bodyboard world-champion Teresa Almeida and Swedish elite football player Lisa Ek.

Activities so far:

- Developed a purpose-built website and online platform [www.psytoolsport.eu](http://www.psytoolsport.eu) that promotes good practices and offers continuous guidance and education for all youth sport stakeholders
- Created a 10-lesson online 'Agents of Change Training Programme' covering topics such as personal development, discrimination, violence, abuse, match-fixing, doping, etc.
- Trained over 150 Agents of Change across five different countries. Agents of Change include coaches, parents, referees, club officials, journalists, politicians and sport scientists, and are expected to impact at both at local and national policy and practice level.
- Agents of Change have trained more than 1500 young athletes, coaches, parents and so on from different sports.

### What's next?

During the rest of the project life, PsyTool will continue to train Agents of Change across the EU, and continue to lobby for the right to positive experiences in sport for all children and young people. The network is a good opportunity to increase understanding of sporting cultures in Europe.

PsyTool will also evaluate the effects of the Agents of Change training programme in two ways:

- Assessing the personal impact on the Agent of Change and the perceived value of the course
- Establishing pre- and post measures of fair-play, gamesmanship and disposition to cheating in young athletes trained by Agents of Change

# Samband hos svenska idrottare för dispositionell mindfulness, emotionsreglering och idrottspsykologiska färdigheter

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## Introduktion

Att vara elitidrottare medför en del krav/utmaningar på träningar och matcher samt i livet i övrigt (Franck, Stambulova, & Ivarsson, 2016). Förutom utmaningar i träning/tävling upplever idrottare även psykologiska krav relaterat till exempelvis identitet, motivation och självförtroende. För att möta och hantera detta behöver idrottare strategier. Idrottspsykologer och idrottspsykologiska rådgivare kan arbeta för att lära ut tekniker som kan hjälpa idrottare att klara av de krav/utmaningar som de ställs inför (Birrer, Röthlin, & Morgan, 2012). Även om psykologisk färdighetsträning (PST) ger en låg effekt så kan det göra en väsentlig skillnad för en elitidrottare, då det på toppnivå ofta handlar om små marginaler (Birrer & Morgan, 2010). Bristen på empiriskt stöd för PSTs effekt att förbättra en idrottares prestation fick Gardner och Moore (2004) att utveckla Mindfulness Acceptance Commitment (MAC). MAC är en mindfulnessintervention vars syfte är att förbättra prestation för elitidrottare genom ett specifikt förhållningssätt till inre processer samt ett fokus på det innevarande ögonblicket.

## Syfte och teoretisk ram

Modellen av Birrer et al. (2012) bygger på att dispositionell mindfulness genom potentiella påverkansmekanismer ska påverka idrottspsykologiska färdigheter. Syftet med den befintliga studien var att genom en pathanalys pröva delar av Birrer et al.'s (2012) föreslagna modell, för att undersöka samband mellan dispositionell mindfulness, emotionsreglering och idrottspsykologiska färdigheter (motivation, coping).

## Metod

En longitudinell korrelationsstudie med tre mätningar, med ungefär en veckas mellanrum. Studien bestod av 65 idrottare varav 33 kvinnor och 32 män från Västra och Södra Sverige, med medelåldern 22,78 år ( $SD = 4,66$ ). Tävlingsnivå varierade mellan regional ( $N=1$ ), nationell ( $N=52$ ) och internationell ( $N=12$ ), idrotterna som representerades var fotboll ( $N=54$ ) och friidrott ( $N=11$ ). En pathanalys genomfördes för att testa studiens modell, baserat på 47 deltagare (som deltog vid samtliga mättillfällen).

## Resultat

Pathmodellen för dispositionell mindfulness, emotionsreglering och idrottspsykologiska färdigheterna motivation och coping visade longitudinella samband. Dispositionell mindfulness predicerade emotionsreglering med indikationen att en högre grad av dispositionell mindfulness relaterar till bättre emotionsreglering, 32 % ( $b = -.57$ ,  $p > 0.01$ ) av variansen inom emotionsregleringen förklarades. Nästa steg visade att emotionsreglering predicerade inre motivation, amotivation samt coping. Ett prediktorsamband mellan emotionsreglering och inre motivation visades, 20 % ( $b = -.45$ ,  $p > 0.05$ ) av variansen för inre motivation förklarades av emotionsreglering och indikationen är att bättre emotionsreglering främjar en inre motivation. Även för amotivation visades ett starkt prediktorsamband och en förbättring i emotionsreglering förklarar 30 % ( $b = .55$ ,  $p > 0.01$ ) av variansen för amotivation och det indikerar att förbättrad emotionsreglering förhindrar amotivation. Emotionsreglering visades vara starkt predicerande även för coping och förklarar i modellen 20 % ( $b = -.45$ ,  $p > 0.01$ ) av variansen i coping. Det indikerar att en förbättring i emotionsreglering främjade individens coping.

## Diskussion och slutsatser

Utifrån studiens pathmodell, vilken baserades på Birrer et al.'s (2012) teoretiska modell, visas att effekten av en förbättrad dispositionell mindfulness för idrottare följaktligen ger en förbättring i emotionsreglering. Det innebär att idrottare inte agerar reaktivt och hanterar känsloreaktioner i samband med stress mer fördelaktigt. En förbättrad emotionsreglering och minskad reaktivitet medför förbättrade copingresurser, vilket ger större möjlighet att hantera de krav och utmaningar idrottare ställs inför. En förbättrad dispositionell mindfulness och främjad emotionsreglering skulle även kunna ge en större tydlighet för idrottare i hur de upplever att de motiveras till sin idrott. Att idrottare genomgår mindfulnessinterventioner såsom MAC skulle därmed troligen främja prestation och förbättra möjligheten att hantera medgång samt motgångar.

# Self evaluated psychological factors related to sport injuries amongst adolescent female soccer players; preliminary results

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## Introduction

According to the Swedish soccer association, more than 330 000 soccer players over the age of 15 were registered in Sweden during 2015, whereof 87 000 were female. Soccer is one of the most popular sport in the world, and also the biggest female team sport in Sweden. However, participation in soccer also expose the athlete to the inherent risk of injuries. A majority of the sustained injuries are traumatic, and 13-36% are acquired from overuse. The risk of developing an overuse injury is higher amongst female athletes than male. Treatment of sports injuries is highly expensive for the healthcare system. Possible negative long term risks for the injured athlete is early retirement from sport, and premature progression of osteoarthritis. Several psychological factors have been positively correlated with sport injuries. For example, ineffective coping strategies, negative life event stress and daily elements of anxiety. Considering the high injury incidence among adolescent female soccer players, the financial burden on society and the potential long term detrimental risks for the individual, preventive strategies for sports injuries are important. To construct preventive programs, it is essential to first determine risk factors for the aetiology of sport related injuries. Therefore, it is of importance to investigate whether psychological antecedents are linked to the injury status and type of injury amongst young female soccer players.

## Aim and theoretical framework

The aim of this study is to describe the occurrence of soccer related injuries, and to analyze the difference in player's evaluations of psychological factors depending on their injury status and type.

## Method

Karolinska football injury cohort (KIC), aims to follow 600 Swedish adolescent female soccer players aged 13-16 competing in top divisions prospectively for 12-months, to identify potential risk factors for soccer related injuries. The present study is based on the data collected from KIC. The athletes answer an extensive baseline covering potential psychological risk factors such as coping, stress, passion to her sport. Players will be followed weekly with an online questionnaire during a 12-month period after baseline. Substantial injuries leading to reduced performance and/ or participation in football due to physical complaints are registered.

## Results

Among 148 players followed by a total of 3733 weeks, 137 substantial injuries were reported, 53% of traumatic type and 47% overuse injuries.

When categorizing the players into three groups: uninjured, traumatic injury or overuse injury depending on their index injury or yet no injury, a one-way ANOVA showed no statistical difference between the three groups on perceived stress or coping strategies at baseline. There was a statistically significant difference in mean scores at  $p < .05$  level in the Passion scale for the three groups: Obsessive passion  $F(2, 142) = 3.2, p < .04$ . The Tukey post hoc comparison indicated that mean score for No injury ( $M=33.1, SD=10.1$ ) was statistically different from Overuse ( $M=37.9, SD=7.3$ ) and Harmonious Passion  $F(2, 144) = 5.8, p < .01$ . The Tukey post hoc comparison indicated that mean score for No injury ( $M=38.7, SD=7.3$ ) was statistically different from Overuse ( $M=42.8, SD=4.8$ ). The traumatic group did not differ from the other groups in the Passion scale.

## Discussion and conclusions

According to our preliminary results overuse injuries are more common than previously reported. When psychometric baseline data together with type of index injury were analyzed, no difference were shown in regards to stress and coping strategies among these three groups. However, both obsessive and harmonious passion scores was related to overuse injuries, which is in line with models in previous studies. These results are preliminary and confounding factors were not accounted for, thus no definitive conclusions can be made.

## High performance standards and expectations experienced by talented youth athletes, performing artists, and regular lower secondary school students

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### Introduction

In sports and performing arts high standards, thoroughness, commitment, and flawlessness are important to achieve success at an elite level. In adolescents, high performance standards may contribute to higher dedication in their training and school work, and enhanced performances. However, perceptions of such performance standards may influence adolescents negatively with feelings of inadequacy, too much pressure and high training-/workloads, and challenges regarding how to cope with these situations, which may have debilitating consequences. Moreover, adolescents showing perfectionistic behaviours are especially vulnerable regarding that perfectionism predicts health outcomes such as anxiety, depression, burnout and eating disorders.

In Norway, a growing number of private specialized (“elite”) lower secondary sports schools are establishing. Hence, we need more evidence-based knowledge and a broader and more thorough understanding of adolescents’ experiences with high performance standards and expectations in performance settings.

### Aim

The study aims to explore adolescents’ experiences with having high performance standards and expectations regarding school, sports and performing arts.

### Method

Data were gathered through interviews based on a semi-structured interview guide. The participants, 22 girls and 13 boys aged 14–15 years, represents two private “elite” sports schools and three public schools including talented classical music-, elite ballet and regular school students, recruited within a quantitative study (of 14 schools). The first author conducted all interviews during May–June 2017 at the school settings. Data was analysed by systematic text condensation organised as a four-step approach. The first step includes reading the transcribed interviews to get an overview of the data and to approach first-impression themes. The analyses are currently in the initial phase. Thus, preliminary results are presented.

### Results

The first impression themes regarding adolescents’ experiences with having high performance standards and expectations are feeling obliged to work/train harder, fear of not performing well/fear of failing, the need/pressure to prioritize (e.g. sports vs school), and coping skills. The perceptions of having high performance standards are described as helping/pushing the adolescents to work/train harder and thereby to enhanced performances. When exposed to high performance standards adolescents describe experiences of being anxious about not performing well and thereby not being acknowledged (e.g. by the coach), feelings pressure to prioritise (e.g. school vs training), and difficulties to cope with the high standards. Adolescents who describe they are good at prioritising

experience less challenges in coping with the high performance standards. Getting headaches, being tired, stressed and anxious were also described as associated with high performance standards. A 15 year old boy described how having high standards may get problematic like this:

I think it is very positive to have demands, but if you have too high demands then you may push yourself too hard, that is not good. Then there are many other things that may not work for you anymore, and you get very tired or you may experience stress [-seizure] or very much can go wrong if you push yourself too hard.

### Discussion and conclusions

This is the first study exploring Norwegian adolescents' experiences with high performance standards and expectations within the school settings of specialized ("elite") junior lower secondary schools for sports, classes for music and ballet, and regular school. The adolescents describe positive experiences in regards to achievements, and challenges to cope with high performance standards. How adolescents approach performance standards may show perfectionistic tendencies, and having a negative impact on health and well-being. The preliminary findings indicate that more awareness should be put on the overall adolescents' strain experiences. These findings are important to investigate further, and may have practical implications for current and new schools targeting talented youths.

## Who becomes exercise dependent? Exploring psychological risk factors for exercise dependence through a person centred approach

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### Introduction

Participation in regular exercise is generally related to both physical and psychological wellbeing. Paradoxically, exercise may also be associated with a negative influence on health. For some individuals training routines may turn into rigid, obsessive-compulsive behaviours that eventually develop into dependence. Exercise dependence is described as a craving for physical activity that results in extreme exercise that may generate physical impairment and mental health problems such as anxiety and depression. Typical symptoms of exercise dependence are that the individual exercises more often and for longer periods of time than originally intended, that important social, occupational or leisure activities are given up or neglected in favour of exercise, and that exercise routine continues despite recurrent physical or psychological problems. If the individual, for some reason, is prevented from exercising, withdrawal symptoms such as physical discomfort, distress, feelings of guilt and lowered self-esteem are often experienced. Consequently, the exercise dependent's life is dominated by exercise, often at the expense of family, friends and work. The causes for exercise dependence have not yet been clarified but anxiety and obsessive-compulsive behaviour as well as body image disturbances have been proposed as potential risk factors. However, research in this area is still limited.

### Aim and theoretical framework

The aim of this study was to investigate psychological risk factors for exercise dependence by examining the predictive ability of anxiety, obsessive passion and appearance orientation on exercise dependence through a latent profile analysis (LPA).

### Method

In the current study we used a repeated measures design with two time points. Measures from T1 were used to identify latent profiles based on level of anxiety, obsessive passion and appearance orientation. Results from the LPA were then used to analyze if profile membership at T1 had a relationship with exercise dependence at T2. The sample consisted of 206 regular exercisers (100 males and 106 females) from exercise groups, sport clubs and sport science classes in Sweden (Mage = 28,5 years; SD = 9,97).

### Results

The LPA showed that a model with two profiles provided best fit to the data. Profile 1: "high risk for exercise dependence" was characterized by high levels of anxiety, obsessive passion and appearance orientation.

Profile 2: “low risk for exercise dependence”, reported low levels of the aforementioned variables. Furthermore, exercisers in the “high-risk profile” at T1 reported higher levels of exercise dependence at T2, compared to the “low-risk profile”. Large effect sizes were found for all three predictors, with anxiety being the strongest predictor.

### Discussion and conclusions

A combination of high anxiety, obsessive passion and appearance orientation is associated with increased risk for developing exercise dependence. Moreover, “high-risk exercisers” are characterized by anxiety, potentially at the level of an anxiety disorder, an obsessive passion for exercise and place great importance in their appearance. An interpretation of the results is that to these exercisers, exercise may function as a tool to cope with anxiety and worry, as well as a means to achieve body ideals. Furthermore, they may strongly identify themselves as serious exercisers and experience internal pressure to exercise in order to uphold this identity. Results of the current study may explain why some exercisers develop exercise dependence and others do not.

## Behavioral activation versus physical activity via the internet: a randomized controlled trial

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### Introduction

A major problem today is that only about fifty percent of those affected by depression seek help. One way to reach more sufferers would be by offering easily accessible internet based treatments. The purpose of this study was to compare/evaluate four therapist supported internet administered treatments.

### Method /Results

Two hundred eighty six participants were included. The treatment period lasted twelve weeks, consisting of the following treatments: 1) physical activity without treatment rationale, 2) physical activity with treatment rationale, 3) behavioral activation based on Lewinshon's (1974) model and 4) behavioral activation based on Martell's model (Martell et al., 2010). All groups (including a control-group) showed a significant decrease in depressive symptoms. When the treatment groups were pooled and compared to the control group, there were significant differences from pretest to posttest (Hedges  $g$  treatment = 1.01, control group = 0.47). This held true also when each of the four treatment groups was compared to the control group, with one exception: Physical activity without treatment rationale.

### Limitations

The differences between how many modules the participants completed could indicate that there are other factors than the treatments that caused the symptom reduction, however, the dose-response analysis did not detect any significant differences on account of modules completed.



## Discussion and conclusions

The results support the positive effects of internet administered treatments for depression and highlights the importance of psychoeducation, which tends to affect both the treatment outcome and the probability of remaining in treatment. These aspects need to be considered when developing and conducting new treatments for depression since they would increase the likelihood of positive treatment outcomes.

## The role of mental representation: mental representation structure of athletes has a positive relationship with cognitive performance

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### Introduction

According to the perceptual-cognitive perspective, mental representations play a fundamental role in planning and performing actions (Schack and Mechsner, 2006). The more elaborate mental representations of motor actions, the more likely the motor output will be better because mental representations control the precision of motor commands (Schack and Ritter, 2013). In order for the perceptual-cognitive perspective to be supported, more empirical studies need to be conducted to examine the relationship between mental representations and cognitive or skill performance.

### Aim and theoretical framework

The purpose of this study was to investigate the functional link between mental representations and cognitive performance by analyzing mental representation structure and cognitive performance according to skill level.

### Method

Twenty experienced male tennis athletes and twenty-five male novice tennis players took part in this study. The structural dimensional analysis of mental representation (SDA-M) was used to evaluate the mental representation structure of tennis serve, which consists of 11 basic action concepts (BACs). This method provides psychometric information on the structure of movement representation in long-term memory. In addition, the cognition and movement chronometry (CMC) was employed to assess the cognitive performance of tennis serve. This method gives information on chunking in working memory. We examined the difference and relationship between mental representation structure and cognitive performance by skill level.

### Results

The cluster analysis showed that both athletes and novices group had significant clusters in mental representation structure. More specifically, two clusters (BAC 1, 3, 5; BAC 6, 7, 8, 9, 11) for athletes group and one cluster (BAC 6, 8, 9, 11) for novices group were confirmed. The invariance analysis was conducted to determine if there was a statistically significant difference between experienced athletes and novices. The invariance analysis indicated that there was an evident significant difference between the two groups ( $\chi^2 = 0.45$ ). Furthermore, adjusted rand index (ARI) was calculated to evaluate the degree of similarity between the clusters of athletes or novices group and the reference clusters. The ARI analysis revealed that the similarity of athletes group (ARI\_athletes = 0.48) was higher than that of novices group (ARI\_novices = 0.14). In addition, the result of the cognitive performance showed that athletes group had higher accuracy ( $p < .05$ ) and shorter response time ( $p < .05$ ) compared to novices group. Lastly, it was revealed that the correlation between ARI and CMC accuracy in athletes group was significant ( $p < .05$ ).

### Discussion and conclusions

Firstly, the mental representation structure of athletes in long-term memory was more elaborate and more organized than that of novices, which supports the finding of previous studies (Schack and Mechsner, 2006). Secondly, the cognitive performance of athletes group was superior to novices. Thirdly, for athletes, the mental representation structure in long-term memory has a positive relationship with the information processing in working

memory. Taken together, the results of this study suggest that the functional relationship between the mental representation of LTM and process of working memory is strengthened once skill learning occurs.

## How the environment promotes active lifestyle of elderly with disabilities

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### Introduction

European countries face significant demographic changes caused by decreasing birth rates and rising life expectancy and subsequent social and economic problems. The increasing number of elderly people and lower level of their physical activity, should encourage us to look for ways to prevent problems caused by population ageing and how to facilitate equal opportunities for elderly people to engage in physical activities. Promotion of physical activity among elderly people is very important because physical activity has a positive effect on health, physical capacity and independence.

### Aim and theoretical framework

The aim of the study was to identify how the environment promotes active lifestyle of elderly with disabilities in Lithuania and to review the examples of good practice.

### Method

The questionnaire was developed according to recommendations of Lithuanian Governmental Physical Education, Sport Department and European Physical Activity Guidelines (2008), Global recommendations on physical activity for health (Geneva, WHO, 2010) and consisted of 30 questions about their physical activity, demand for participation and the type of participation in physical activity, reasons for inactivity and environmental conditions. The review of recent 5 years municipal, national and European projects involving aging people into active lifestyle and creating active environment was carried out. 174 respondents (age  $72.3 \pm 4.6$ ) from different places of Lithuania filled in questionnaire anonymously.

### Results

The data analysis showed that 71% of respondents were irregularly engaged in uninstructed physical activity. 92% of respondents had no information about possibilities to be engaged in structured exercise training of older people in their community. Persons aged 60-74 would become physically more active by improving the accessibility of physical activity environment; people aged 75-89 did not think if they would become more active. This suggests that the desire to be physically active is decreasing with age. Some respondents pointed out the lack of basic knowledge about physical activities that prevent them from practicing independently. The main reasons of inactivity were: health condition, lack of basic knowledge about proper physical activity and health benefit, lack of information, not appropriate sport facilities in locality, non-adapted programs for seniors, not accessible environment, and overpriced physical activity facilities. Women admitted to have lack of will power. Only 32% of respondents noticed that organized physical activity facilities are accessible.

### Discussion and conclusions

The physical activity of elderly in Lithuania is far behind in comparing with other developed European countries. The main reasons of not being active enough are: health problems, lack of energy, will and motivation, expensive services, lack of accessible infrastructure. Physical activity of older people could be increased by improving accessibility of physical activity facilities in local communities and providing more information about the different possibilities to be not only physically but also socially active and involved in organized activities. The main role of the state is to create the equal opportunities, decent living conditions for the health for every person. Proper urban planning can promote healthy behavior: strengthening health by investing into active transport, designing safe cities, promoting physical activity, traffic control. In order to promote the physical activity of the elderly the infrastructure of the living environment should be improved, more recreational places created and safety ensured.

# Participatory Activist Research: Afghan Youth and Physical Education

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## Introduction

This research is within the field of physical activity, immigration and youth. There have been numerous qualitative studies, within the European context, which have mostly concentrated on case studies (Walseth & Fasting, 2004; Walseth 2008; Hertting & Karlefors; Fundberg, 2012; Lundvall, 2009) and fewer quantitative studies (Kreuwel et al, 2006; Kouli & Papaioannou, 2009; Hatzigeorgiadis et al, 2013; Elbe et al, 2016). These studies have created basic knowledge in this particular field and have shed light on different aspects of sports and integration. There are, however, very limited number of studies that have researched interventions using the participants knowledge and specific needs in order to make a real impact in the community.

## Aim and theoretical framework

Critical participatory activist research (PAtR) is a method that can utilize the situated knowledge of the community members and create lasting impact. Through participatory activist research, community members are active participants in contributing and creating knowledge which is then utilized to enhance the community itself and instigate action within the community. Moreover, such enquiry will contribute to the wider research and promote research implications in the communities (Isahunter, emerald & Martin, 2013; Schinke & Blodgett, 2016).

PAtR alternate approach to subjectivity of knowledge and grassroots participation is a fresh perspective in contrast to 'expert-driven' research which reinstate the dynamic of dominance and oppression (Schinke & Blodgett, 2016). PAtR has its roots in participatory action research (PAR) and critical theory, hence it emphasizes that research is not a neutral activity and it is always political, working to maintain or change dominant power relations. PAtR is an accessible and interrelated approach that works alongside the notion of doing justice "with" and "by" those who are oppressed using practices that confront dominant and cultural norms (Isahunter et. al. 2013).

The goal of this research is working with the immigrant youth in Sweden in recognizing and deconstructing prevailing socially constructed definitions of integration and Swedish-ness within a Physical Education class (PE) context. The project aims to create a space where the participants can realize their agency and power in shaping and creating their own social environments.

## Research Questions

- 1) What are the benefits and barriers to a participatory and (inclusive) P.E environment?
  - a. Scrutinizing the current practiced curriculum by the coresearchers, and b. Personal experiences
- 2) How to overcome such barriers through changing the present environment, approaches and requirements?
- 3) What are the thought processes and personal experiences of the researchers throughout the various stages of this project?

## Methods

Methods of constructing field texts (data collection): Narrative inquiry methods as well as focus groups will be used where all the researchers will contribute to the creation of field texts (data). Working with Afghan youth, narrative inquiry methods such as prose and poetry, storytelling or photo-voice are culturally appropriate methods that have a long history and familiarity for the members of the research team. Using these culturally familiar methods, therefore, enables the research team to share their experiences and knowledge in meaningful ways and engages them as the experts of their own lived experiences (Blodgett, et.al, 2013).

Methods of analyzing field texts: Inductive narrative analysis and thematic analysis will be used by all researchers in order to shed light on what meanings are represented as standard and conformed, what meanings are obscured and resisted and what are the voices from the margin.

## Results and Discussion

The result will provide novel insight into how PE experiences of Afghan refugees in this group are shaped by the dynamics and interaction of the Swedish practiced curriculum and participants' cultural background. The results will also highlight the challenges of acculturation (second-culture learning) and (re)construction of the sense of identity and belonging within (and through) the context of PE. With regards to action, the research team illustrations and public display of their experiences through poetry or photovoice, will centralize their voice and highlight the benefits of some practices and the necessity for change for other practices within a PE context.

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**MD Anders Hansen,** Chief physician in psychiatry, Karolinska Institutet, Stockholm, Sweden.

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