



Perceived Job Satisfaction and Interprofessional Collaboration in International Sports Science and Sports Medicine

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Webinar

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Disclosure

In compliance with continuing education requirements, all presenters report no financial or other associations with companies to which they have a direct link and/or financial relationship that is related to the topic/content of their presentation.



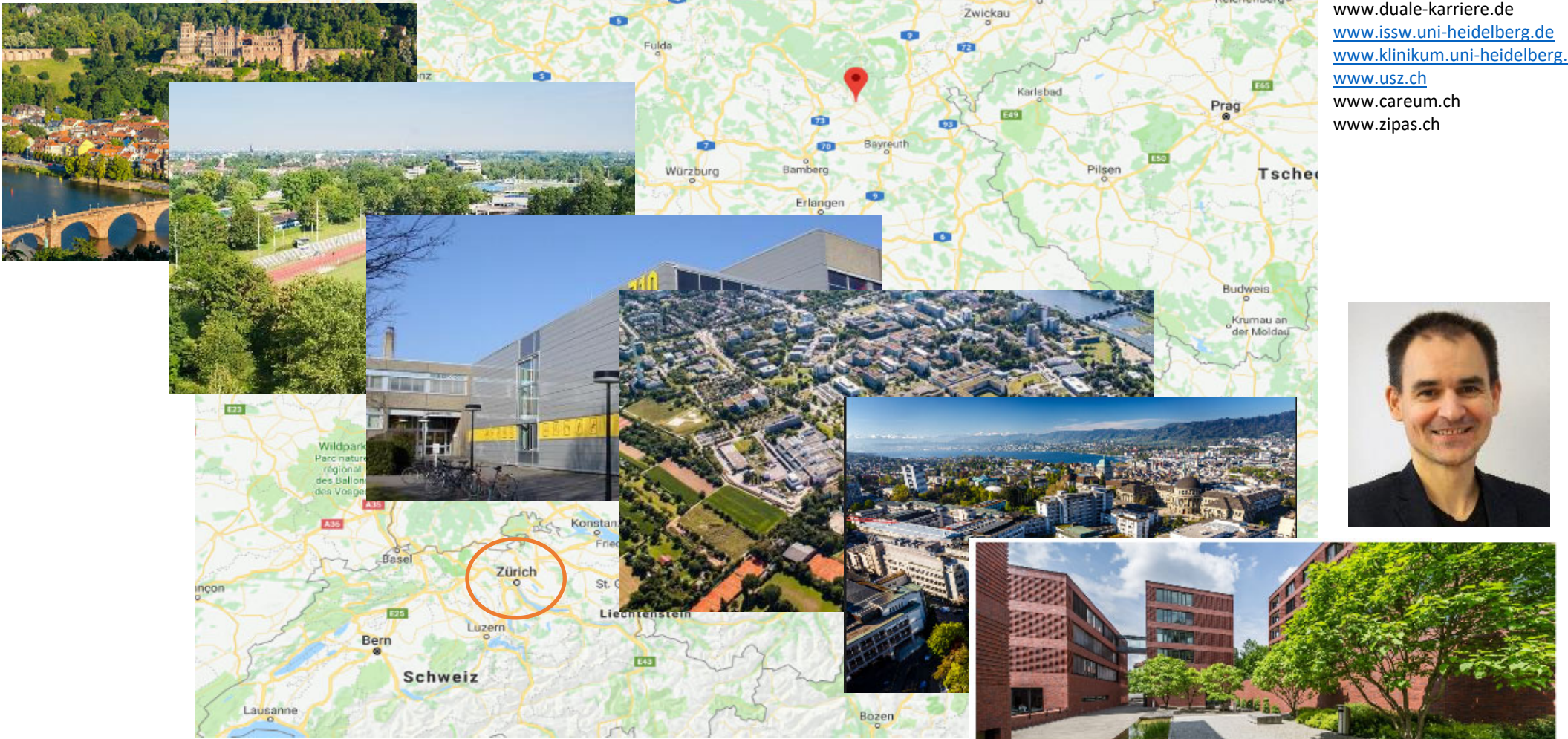
Agenda

- Overview
- Introduction/Background
- Methods
- Results I: Socio-demographics and IP education and collaboration in SSSM
- Conclusion I: Socio-demographics and IP education and collaboration in SSSM
- Results II: Job satisfaction in SSSM
- Conclusion II: Job satisfaction in SSSM

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Objectives

- As a prerequisite, professions in SSSM should have positive experiences and attitudes in IPE and IPC
- However, to date no international perspective on IPE, IPC and Job Satisfaction including various healthcare professions in SSSM has been published thus far

Objectives

To explore:

- socio-demographic connections on IPE and IPC between various SSSM professionals in healthcare from an international perspective
- IP perceptions and attitudes to generate approaches for the development of IPE that links SSSM with IP healthcare to enhance collaborative practice
- the job satisfaction of SSSM professionals from an international perspective and to identify factors influencing job satisfaction.

Interprofessional Collaboration

- **Interprofessional Collaboration (IPC)** occurs when “multiple health workers from different professional backgrounds work together with patients, families, carers (caregivers), and communities to deliver the highest quality of care”
- **Interprofessional education (IPE)** occurs when students (learners) from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes.

SOURCE: World Health Organization. Framework for Action on Interprofessional Education and Collaborative Practice. Geneva: WHO;2010.

Interprofessional Collaboration

- Patient outcomes in the field of Sports Science and Sports Medicine (SSSM) could benefit from collaboration between various healthcare providers (Breitbach & Richardson, 2015; Kraemer et al., 2019; Manspeaker & Hankemeier, 2019)
- In particular, Athletic Trainers and Athletic Therapists are seen as a vital part of the sports medicine healthcare team (Rizzo, Breitbach & Richardson, 2015)
- Most included professions in IPC and IPE research: medicine, nursing, OT, PT, pharmacy and social work (e.g. Lutfiyya et al., 2019; Reeves et al., 2016, Spaulding et al., 2019)

Interprofessional Collaboration

- Manspeaker & Hankemeier (2019a) reported multiple challenges (ability to engage in IPC, knowledge of roles and scope of practice, factors affecting team collaboration, time to participate in IPC) as well as helpful resources (means for communication, educational opportunities) for ATs to participate in IPC.
- The authors recommended the need for IPE programs aiming to gain knowledge about the ATs skills set for other healthcare professionals and vice versa.

Interprofessional Collaboration

- Besides ATs, IPC in sports medicine settings is common, but can face a set of challenges.
- In a scoping review of IPC in sports medicine, Fletcher and colleagues (2017) gave insights into the nature of collaboration in sports medicine and derived key themes of IP dynamics in a range of athletic contexts, e.g. professional dominance, status imbalances, IP negotiation and professionalization.

Interprofessional Collaboration

- Many of the studies in SSSM concerning IPC and IPE focused on the North American region as well as primarily on ATs (Kraemer et al., 2019; Manspeaker & Hankemeier, 2019a, 2019b).
- To date, no international perspectives on IPC and IPE including various health professions engaged in SSSM have been published thus far.
- However, to present a common picture of professions working in SSSM is difficult, as there is wide diversity globally on how these professionals work and interact with each other (Breitbach, Reeves, & Fletcher, 2017).
- The high-profile nature of athletics as well as international diversity of healthcare systems and payment models may be crucial factors for these different operating methods (Burau & Blank, 2006; Digel, 2005; Wendt, Frisina, & Rothgang, 2009).

Interprofessional Collaboration

- This international diversity is not only evidenced traditional hierarchies, professional regulation and policy internationally, but also through the titles and definitions of professionals in SSSM.
- These definitions show how each profession views its role and its scope of practice. For example, ATs in the USA, athletic therapists in Canada, certified athletic therapists in Ireland, and sports and exercise therapists in Europe may view their roles differently within their respective healthcare systems.
- This global diversity in roles among professionals working in SSSM and the need to work collaboratively across professional borders in this field, more insights into international experiences with IPC and IPE, attitudes and perceptions towards IPC and IPE as well as concomitant socio-demographics are required aiming to facilitate IPC in SSSM.



Professions - Definitions

USA

Athletic trainers (ATs) are highly qualified, multi-skilled health care professionals who render service or treatment, under the direction of or in collaboration with a physician, in accordance with their education, training and the state's statutes, rules and regulations. As a part of the health care team, services provided by athletic trainers include primary care, injury and illness prevention, wellness promotion and education, emergent care, examination and clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions.

(SOURCE: <https://www.nata.org/about/athletic-training>)

Physical therapists (PTs) are movement experts who improve quality of life through prescribed exercise, hands-on care, and patient education. After making a diagnosis, physical therapists create personalized treatment plans that help their patients improve mobility, manage pain and other chronic conditions, recover from injury, and prevent future injury and chronic disease.

(SOURCE: <https://www.choosept.com/aboutptsptas/default.aspx>)



Professions - Definitions

CANADA

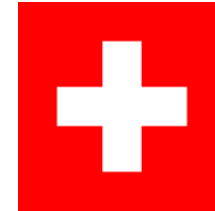
Certified Athletic Therapists are best known for their quick-thinking on-field emergency care of professional and elite athletes. The first to respond when someone gets hurt, they are experts at injury assessment and rehabilitation. It's that same mix of on-site care and active rehabilitation skills that makes Athletic Therapists so effective in treating the musculoskeletal (muscles, bones, and joints) injuries of all Canadians, whether on the field or in the clinic. Athletic therapists adhere to the Sports Medicine Model of care.

(SOURCE: <https://athletictherapy.org/en/about-athletic-therapy/what-is-athletic-therapy/>)

Kinesiologists apply exercise and movement science to promote health and wellbeing; prevent, manage and rehabilitate injuries; treat illness and chronic disease; restore function, and optimize human performance in the workplace, clinical settings, sport and fitness. Kinesiologists are the only human movement specialists that use science and research to offer movement as medicine to any person with a health or fitness goal, who want a hands-on, personalized approach. Kinesiologists work with people of all ages, and physical abilities, in many settings, to help them achieve their health and wellness goals. They improve quality of life, often using interventions that include physical activity.

(SOURCE: <https://www.cka.ca/en/what-is-kinesiology>)

Professions - Definitions



EUROPE

Ireland - Certified Athletic Therapists (CAT) can work in a variety of settings, most typically in sports injury clinics, in the general workplace, with professional and recreational sports teams/athletes or with national governing bodies of various sports. Athletic Rehabilitation Therapy can be divided into four general areas: Injury Prevention and Pre-Participation Screening; On-Field Emergency Care; Injury Assessment, Diagnosis and Treatment; Rehabilitation and Reconditioning (SOURCE: <https://arti.info/>)

United Kingdom - Physiotherapists help people affected by injury, illness or disability through movement and exercise, manual therapy, education and advice. They maintain health for people of all ages, helping patients to manage pain and prevent disease. The profession helps to encourage development and facilitate recovery, enabling people to stay in work while helping them remain independent for as long as possible. (SOURCE: <https://www.csp.org.uk/careers-jobs/what-physiotherapy>)

Germany and Switzerland - Sport and Exercise Therapy is medically indicated and prescribed exercise with behaviour oriented components, planned and dosed by therapists, controlled together with the doctor and carried out with the patient either alone or in a group. It aims to rehabilitate physical, mental and psycho-social impairments (affecting the daily life, leisure time and work) or guard against damage and risk factors with suitable activities from sport, exercise and behavioural orientation. Sport and exercise therapy is thereby based on medical, training and exercise science and especially pedagogic-psychological as well as socio-therapeutic elements. (SOURCE: <https://dvgs.de/en/sport-exercise-therapy .html>)

Job Satisfaction

- There is a high demand for professionals in various health systems worldwide
- In view of the shortage of healthcare workers in many countries, job satisfaction in healthcare professions is an important factor in counteracting this
- The job satisfaction of health care professions can influence the quality of care in the health care system.

(Szecsenyi J, Goetz K, et al 2011)



Workload and Job Satisfaction

- Studies have shown that some health care professions have a high workload, but feel that their work is not very appreciated (Lu et al., JS among nurses: a literature review, 2005/2019; Goetz et al., 2011).
- High workloads can reduce patient safety, and low job satisfaction can be associated with increased staff turnover, more frequent absences from work and associated higher costs and poorer clinical outcomes (Lu et al., 2005/2019; Spence Laschinger. Positive working relationships matter for better nurse and patient outcomes, 2010).

Job Satisfaction Research

- Due to the importance of job satisfaction on the performance of professionals and the health care system, job satisfaction has been assessed in several studies in different health care professions (Goetz et al., 2011; Goetz et al., 2013; Goetz et al., 2018; Ulrich et al., 2019)
- Most of the investigated health professions concerning JS are physicians and nurses, however less is known about JS of professions working in sports science and sports medicine (e.g. Eason et al., Multilevel examination of job satisfaction... 2018), especially from an international perspective.
- Strategies are needed to improve the attractiveness of job profiles in some health care professions (e.g. Ulrich et al. ,2019).

Job Satisfaction in Athletic Training

- Multilevel Model
 - Factors
 - Sociocultural
 - Organizational
 - Individual
 - Work-life Interface
 - Outcomes
 - Individual
 - Organizational
 - Sociocultural

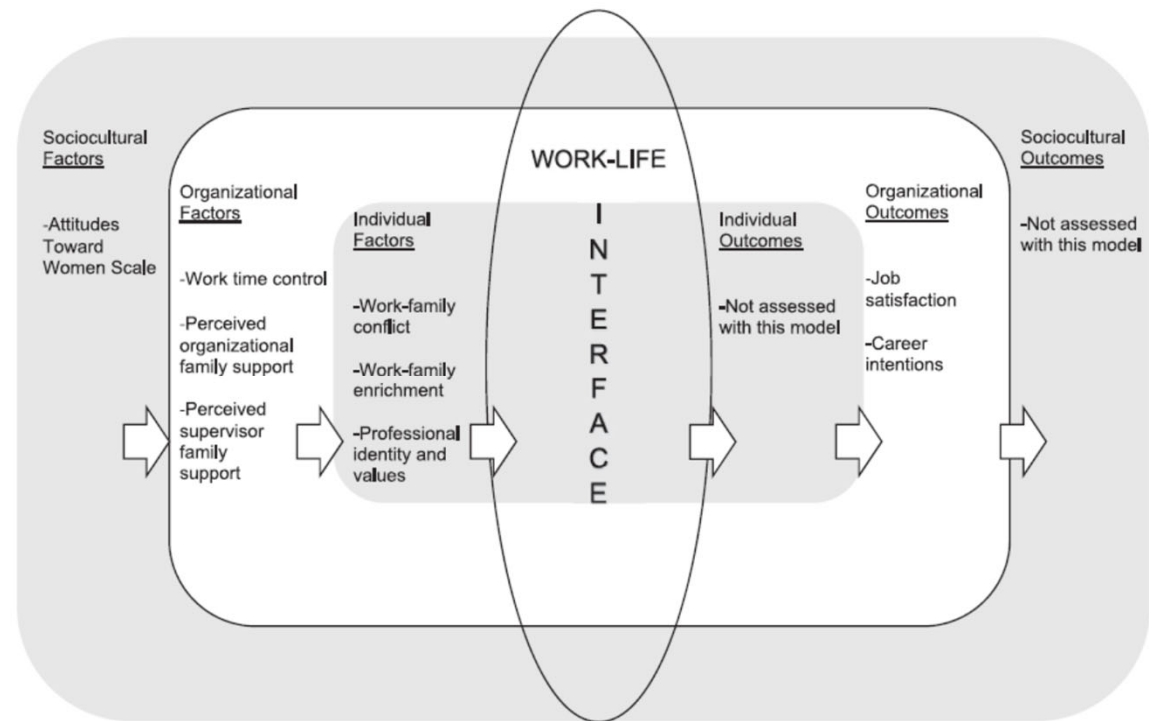


Figure. Proposed multilevel model of the work-life interface among collegiate athletic trainers.

SOURCE: Eason, C., Mazzerole, S., & Pitney, W. (2018). Initial Validation of a Multilevel Model of Job Satisfaction and Career Intentions Among Collegiate Athletic Trainers. *J Athl Train*, 53(7), 709-715. doi:10.4085/1062-6050-457-16

Professional Commitment

- Barriers to Professional Commitment

- Organizational
 - Workload
 - Climate
 - Resources
- Individual
 - Life Stage

SOURCE: Mazerolle SM, Eason CM, Pitney WA. Athletic trainers' barriers to maintaining professional commitment in the collegiate setting. J Athl Train. 2015;50(5):524-531.

- Gender/Sex and Employment Setting

- Work/Family
 - By Sex
- Willingness to Leave
 - By Employment Setting
 - By Sex

SOURCE: Mazerolle SM, Eason CM, Pitney WA, Mueller MN. Sex and Employment-Setting Differences in Work-Family Conflict in Athletic Training. J Athl Train. 2015;50(9):958-963.

Job Satisfaction in Athletic Training

- Job Satisfaction Factors (descriptor)
 - Supervision (Supervisor)
 - Pay & Rewards (Pay, appreciation, recognition, and rewards)
 - Fringe Benefits (Extra benefits of monetary or nonmonetary value)
 - Promotion (Opportunity for advancement or promotion)
 - Nature of Work (The activities involved in the job)
 - Coworkers (People with whom one works)
 - Operating Conditions (Policies, procedures, and conditions of the workplace)
 - Communication (Communication with personnel within the workplace)

SOURCE: Terranova AB, Henning JM. National collegiate athletic association division and primary job title of athletic trainers and their job satisfaction or intention to leave athletic training. J Athl Train. 2011;46(3):312-318.

Job Satisfaction in Athletic Training

- Burnout - Factors
 - Depersonalization
 - Personal Accomplishment
 - Emotional Exhaustion

SOURCE: Giacobbi PR, Jr. Low burnout and high engagement levels in athletic trainers: results of a nationwide random sample. J Athl Train. 2009;44(4):370-377.

- Holistic Approach
 - Professional Responsibility/Patient Care
 - Cycle
 - Respect
 - Rewards
 - Rejuvenation

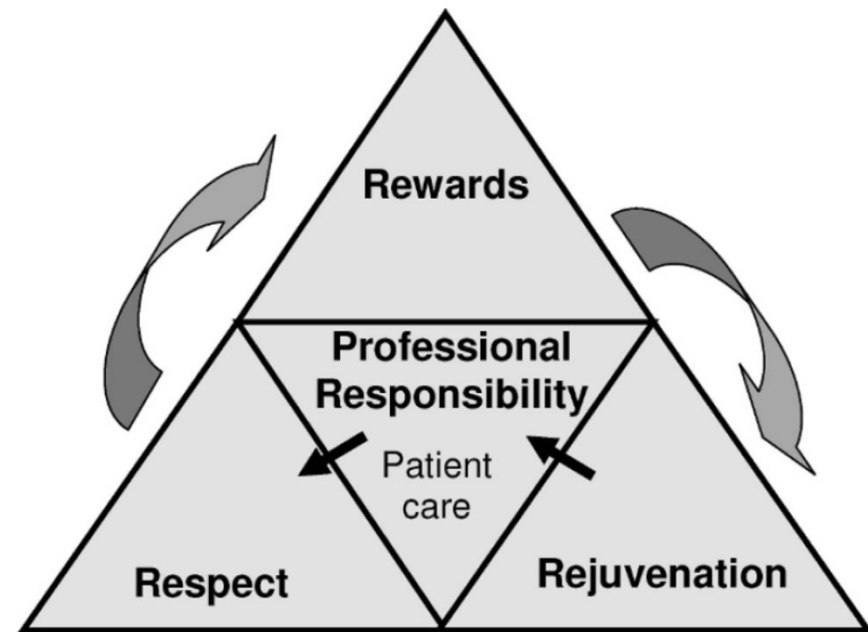


Figure. The holistic relationship among respect, rewards, rejuvenation, and professional responsibility.

SOURCE: Pitney, W. A. (2010). A qualitative examination of professional role commitment among athletic trainers working in the secondary school setting. J Athl Train, 45(2), 198-204. doi:10.4085/1062-6050-45.2.198

Physical Therapy/Physiotherapy Job Satisfaction

- Physiotherapists (Australia)

- The mean job satisfaction score was 41.9 out of 50
- Increased job satisfaction was associated with practice ownership, salary satisfaction, established career pathways, and access to mentoring and professional development.
- Practice owners were significantly more satisfied with their job compared to new graduate, graduate and postgraduate physiotherapists.
- Findings illustrated the changing needs for support across different career stages, the importance of accessible senior clinicians, and the limited recognition for the efforts made by physiotherapists to pursue ongoing education.

- Physiotherapists (Poland)

- Job satisfaction closely related to QOL factors outside of work
- Financial factors such as salary, housing or weak financial position can be an influence
- Profession specific factors were not mentioned as much

SOURCE: Śliwiński Z, Starczyńska M, Kotela I, et al. Life satisfaction and risk of burnout among men and women working as physiotherapists. *Int J Occup Med Environ Health*. 2014;27(3):400-412.

SOURCE: Arkwright L, Edgar S, Debenham J. Exploring the job satisfaction and career progression of musculoskeletal physiotherapists working in private practice in Western Australia. *Musculoskelet Sci Pract*. 2018;35:67-72.

Physical Therapy/Physiotherapy Job Satisfaction

- Physiotherapists in Private Practice (Australia)
 - Key themes
 - Role of peer support and mentoring
 - Professional development
 - Professional relationships
 - New graduate employment issues
 - Career pathways within private practice.
 - New graduates are underprepared to work in private practice and modifications to the delivery of peer support, mentoring and professional development is required

SOURCE: Davies JM, Edgar S, Debenham J. A qualitative exploration of the factors influencing the job satisfaction and career development of physiotherapists in private practice. *Man Ther.* 2016;25:56-61.



Methodology



Recruitment of Participants

- Direct email and email distribution lists through professional organizations (ECSS, ACSM, WFATT, NATA, CATA)
- Social media (Twitter, Facebook, LinkedIn)
- USA, Canada, Europe (Germany, Ireland, Switzerland, Portugal, Denmark, UK, Norway, France, Belgium)



Instrument

- IPC in Sports Science and Sport Medicine (IPC-SSSM) survey
 - Socio-demographics
 - Attitudes and perceptions toward IPC and IPE (University of West of England [UWE]-IP Questionnaire)
 - Warr-Cook-Wall (WCW) Job satisfaction (JS) Questionnaire
 - Open-ended questions
 - A priori: Validation by 12 international experts

University of West England Interprofessional Questionnaire*

- **Communication & Teamwork Scale**

- 9 items; Likert Scale: 1 (strongly agree) – 4 (strongly disagree)

- **IP Learning Scale**

- 9 items; Likert Scale: 1 (strongly agree) – 5 (strongly disagree)

- **IP Interaction Scale**

- 9 items; Likert Scale: 1 (strongly agree) – 5 (strongly disagree)

- **IP Relationship Scale**

- 8 items; Likert Scale: 1 (strongly agree) – 5 (strongly disagree)

➤ Creating a Sum Score for each respondent and scale, respectively

➤ Classifying as positive, neutral or negative attitudes

*Pollard et al. (2004) Health Social Care Community 12 (49) 346-358
Pollard et al. (2005) J Interprof Care 19 (3) 251-268

Example:

Communication and Teamwork Scale

1.*I feel comfortable justifying recommendations/advice face to face with more senior people.

2.*I feel comfortable explaining an issue to people who are unfamiliar with the topic.

3.*I have difficulty in adapting my communication style (oral and written) to particular situations and audiences. **(R = item score is reversed)**

4. I prefer to stay quiet when other people in a group express opinions that I don't agree with. **(R)**

5.*I feel comfortable working in a group.

6. I feel uncomfortable putting forward my personal opinions in a group. **(R)**

7. I feel uncomfortable taking the lead in a group. **(R)**

8.*I am able to become quickly involved in new teams and groups.

9. I am comfortable expressing my own opinions in a group, even when I know that other people don't agree with them.

Warr-Cook-Wall Job Satisfaction Questionnaire

- Warr-Cook-Wall (WCW) Job satisfaction (JS) Questionnaire*
 - 9 aspects of JS (physical working conditions, freedom of working methods, colleagues and fellow workers, recognition for work, amount of responsibility, rate of pay, opportunity to use abilities, hours of work, amount of variety in work)
 - overall JS
- Likert scale with ratings from 1 (extremely dissatisfied) to 7 (extremely satisfied), with higher scores indicating higher satisfaction.

*Warr PJ, Cook J, Wall T. J Occup Psych 1979; 52: 129–148
Cooper et al. (1989) BMJ 1989; 298: 366–370

Warr-Cook-Wall Job Satisfaction Questionnaire

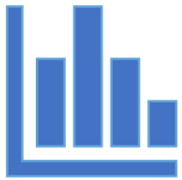
Please indicate how dissatisfied or satisfied you are with various aspects of your job. Give your first and natural answer by working quickly, but be accurate, and answer all questions.

1. The physical working conditions:
2. The freedom to choose your own method of working:
3. Your colleagues and fellow workers:
4. The recognition you get for good work:
5. The amount of responsibility you are given:
6. Your rate of pay:
7. Your opportunity to use abilities:
8. Your hours of work:
9. The amount of variety in your job:
10. Taking everything into consideration, how do you feel about your job:

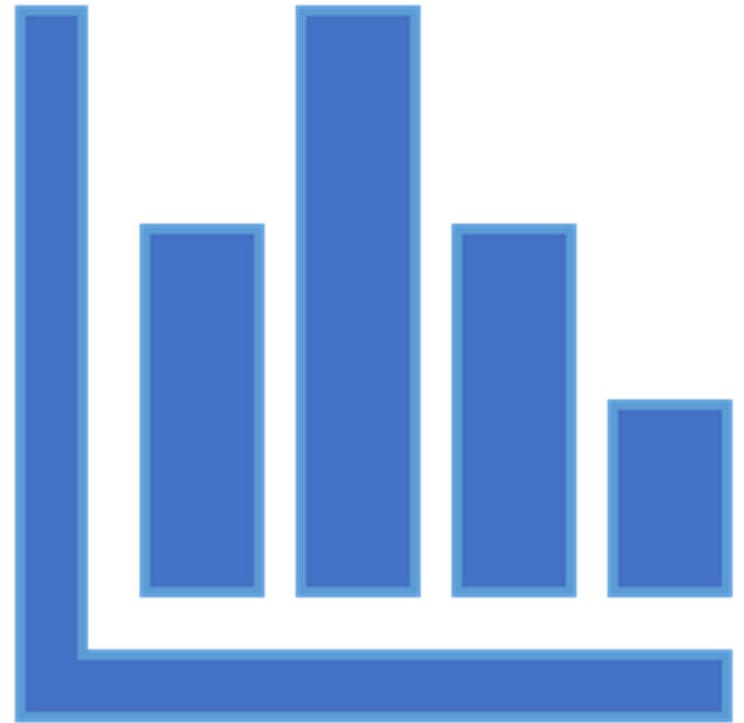
I'm extremely dissatisfied					I'm extremely satisfied		
1	2	3	4	5	6	7	

Statistical Analyses

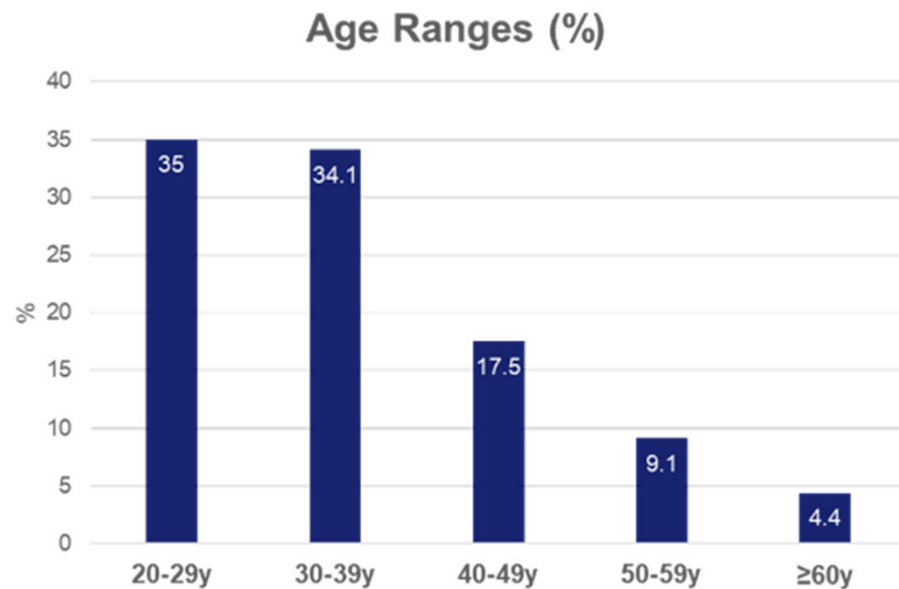
- UWE - IP
 - Five-Factor ANOVA (gender, age [20-29y, 30-39y, ≥40y], region [USA, CAN, EUR], number of self-identified professions [1, 2 or more], number of professions regularly interacting in own work [1-3, 4-6, ≥7] on each of the UWE-subscales
- WCW - Job Satisfaction
 - 10 ANOVAS for the 10 JS items checking for differences in the region (USA, CAN, EUR) with Bonferroni adjustment ($P < 0.005$)
 - 2 ANOVAS checking the influence of personal experience in IPE and IPC, respectively, with Bonferroni adjustment ($P < 0.025$)
 - Multiple linear regression analyses to check impact of selected socio-demographics (gender, age, scope of work) and variables of the JS scale on overall JS; Multicollinearity was controlled for (VIF and tolerance)
- In general
 - Kolmogorov-Smirnov-test (normal distribution); ANOVA: Tukey post-hoc tests and Leven's test (variance homogeneity)
- Ethical consideration:
 - IRB Saint Louis University; Cantonal Ethics Committee of the Canton of Zurich



Results

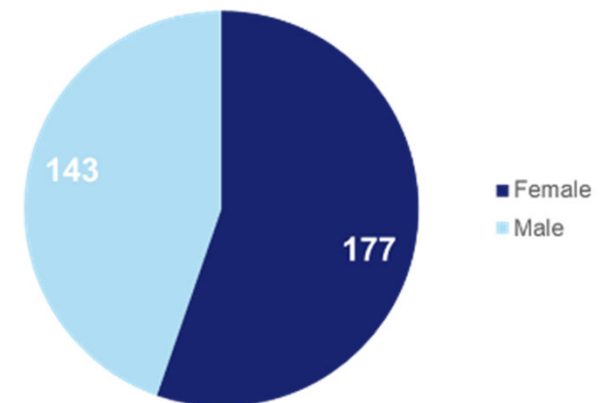


Demographics

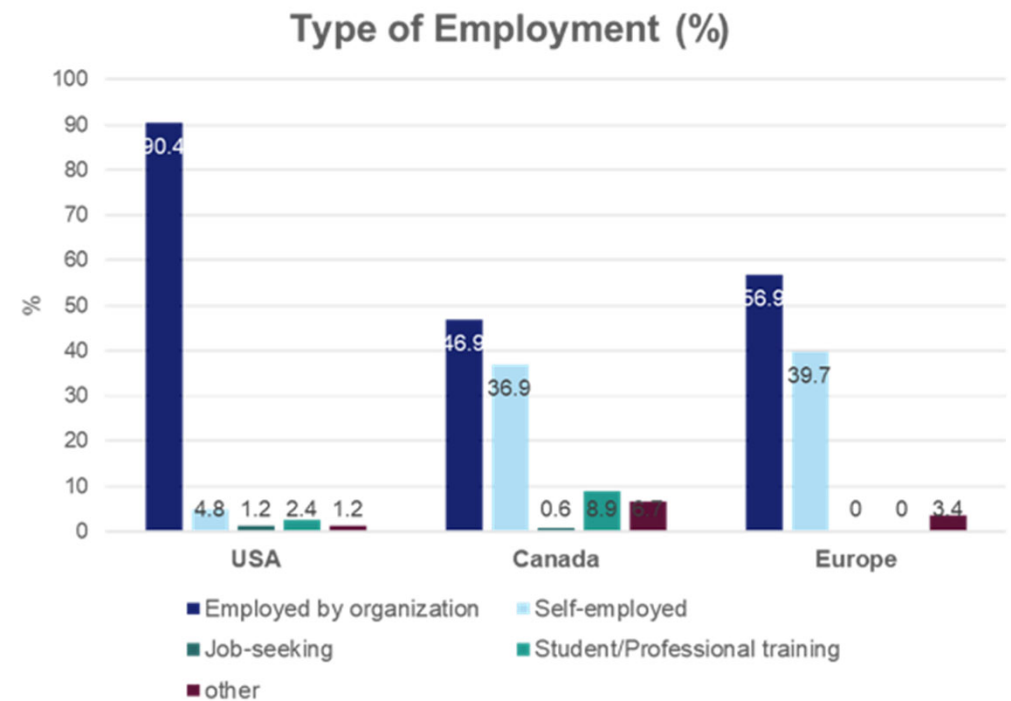
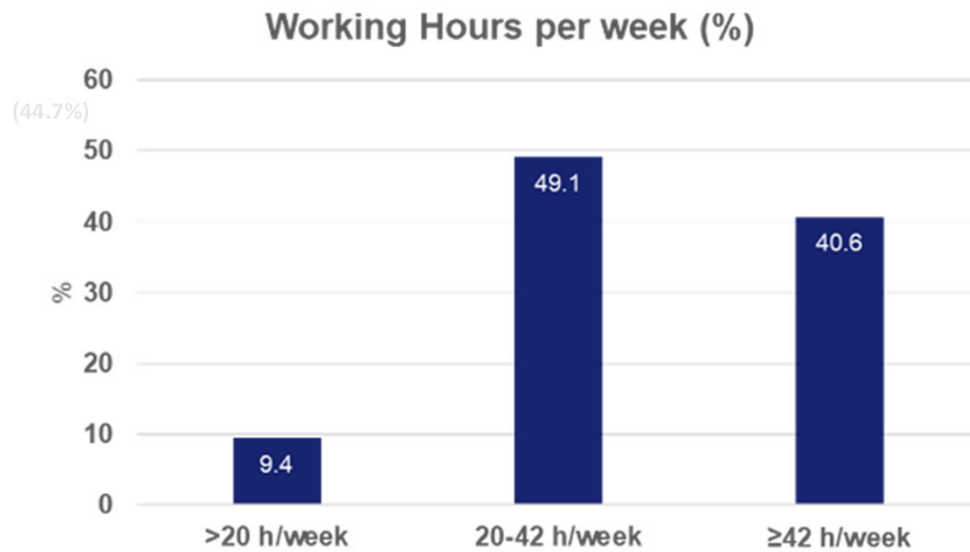


Number of complete responses

	Total Sample (n=320)	USA (n=83)	Canada (n=179)	Europe ^a (n=58)
Gender				
Male	143 (44.7)	38 (45.8)	63 (35.2)	42 (72.4)
Female	177 (55.3)	45 (54.2)	116 (64.8)	16 (27.6)

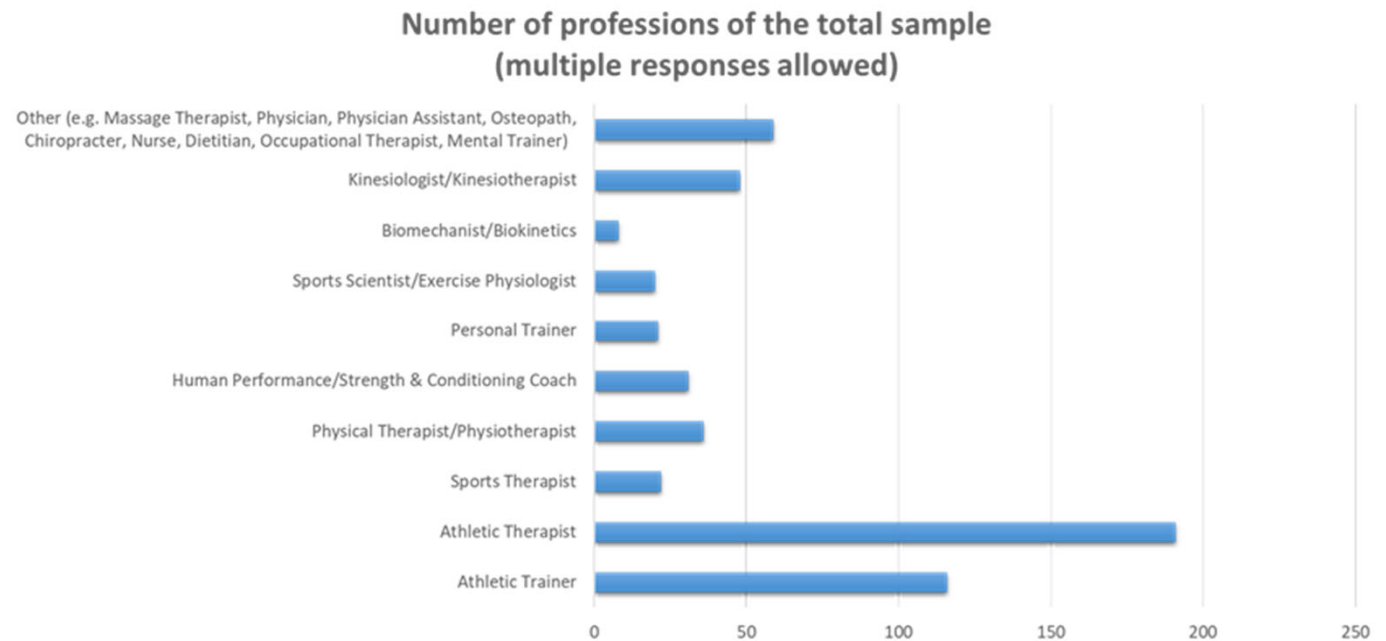


Employment/Working Hours

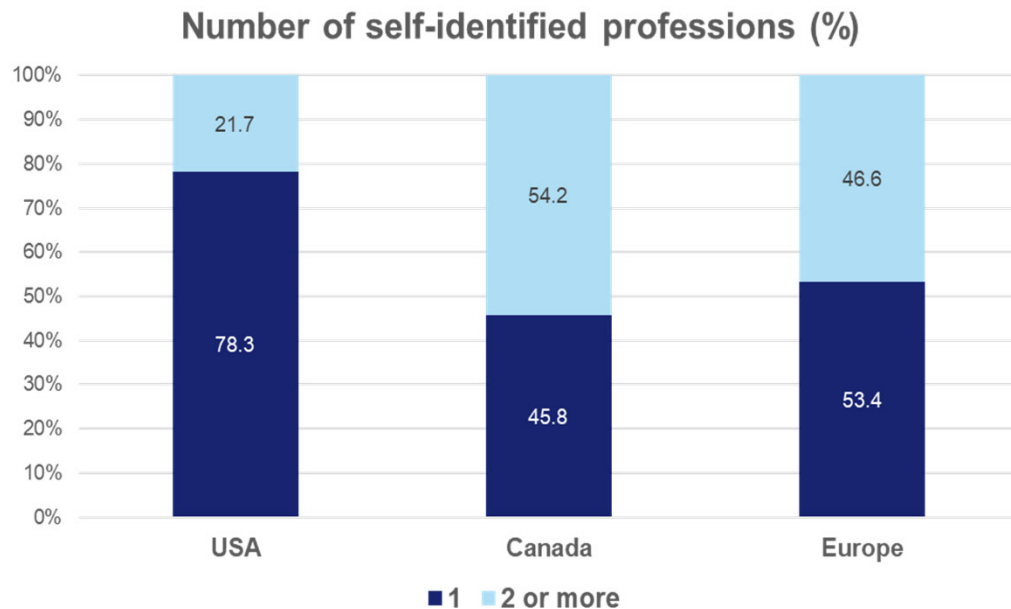


Professions

- Primary professions by region
 - USA:
 - Athletic Trainers (66.1%)
 - Physical Therapist (10.7%)
 - Canada:
 - Athletic Therapists (52.5%)
 - Kinesiologist/Kinesiotherapist (14.3%)
 - Europe:
 - Athletic Trainers (19%)
 - Physical Therapists (19%)



Professions



- This may indicate that, in the USA, accreditation and certification is very structured...
- ...whereas in Europe and, to a lesser extend, in Canada there are more options and flexibility for career paths

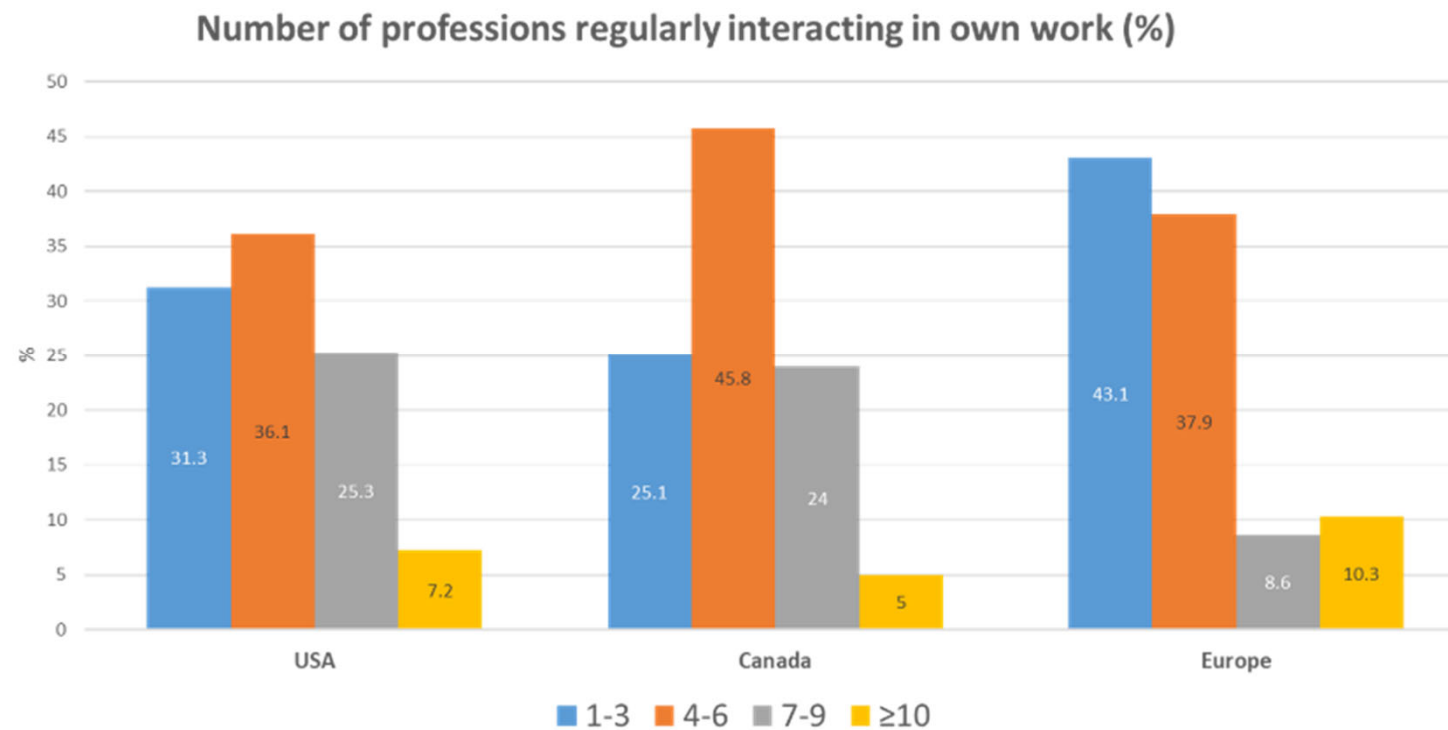
Professions - Interactions

Number of Professions regularly interacting in own work of the total sample (multiple responses allowed)

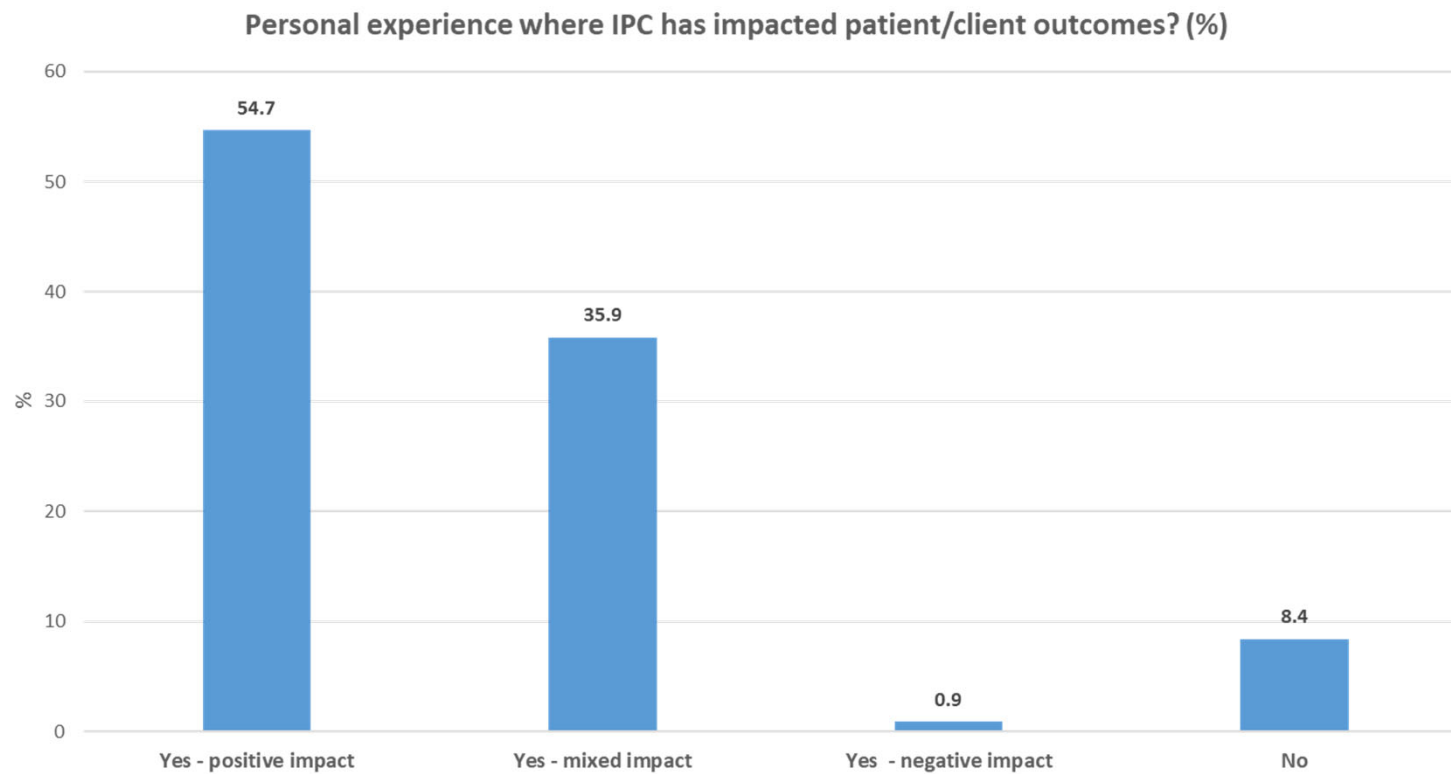


- Professions interacting by region
- USA:
 - Athletic Trainers (18.3%)
 - Physical Therapist (13.5%)
 - Physicians (15.1%)
- Canada:
 - Athletic Therapists (17.3%)
 - Physicians (13.2%)
 - Physical Therapist (12.8%)
- Europe:
 - Physical Therapist (15.0%)
 - Human Performance/
 - Strength & Conditioning Coach(12.0%)
 - Sport Science/ Exercise Physiologist (11.2%)

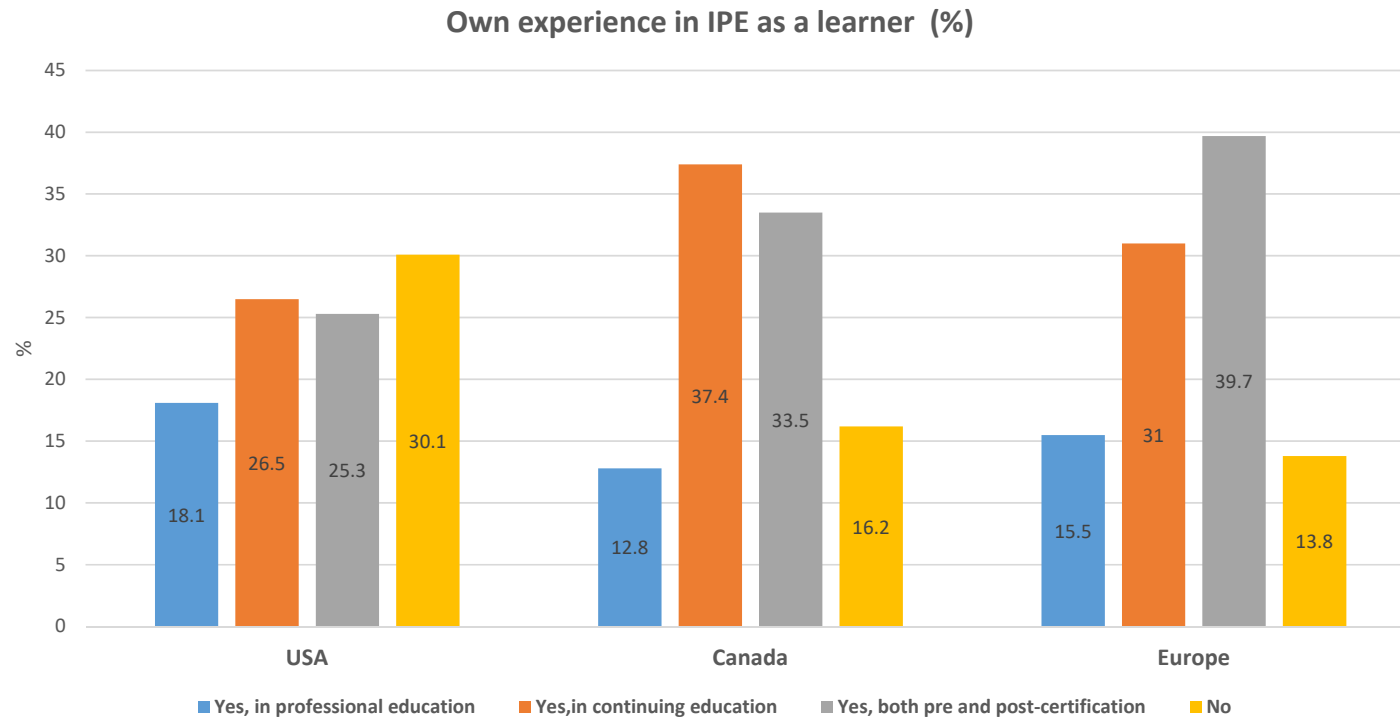
Professions - Interactions



Interprofessional Collaboration



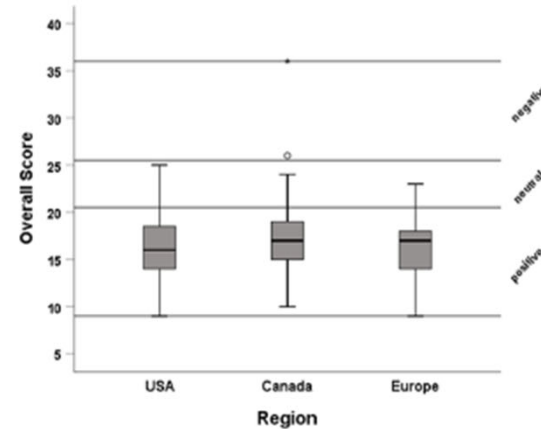
Interprofessional Education



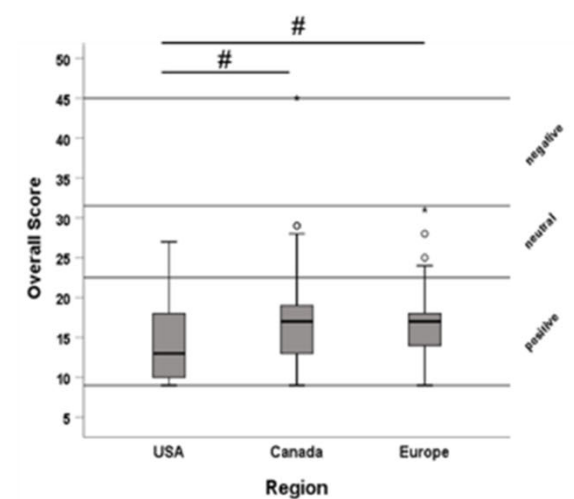
UWE IP (5 factor ANOVA)

- Effects of Region (scales B and C)
 - $F(2,311)=6.03$; $P<0.01$ (scale B)
 - $F(2,311)=3.45$; $P<0.05$ (scale C)
- Effects of Age (scales A and D)
 - $F(2,311)=10.64$; $P<0.0001$ (scale A)
 - $F(2,311)=7.52$; $P<0.001$ (scale B)
 - Older respondents (>40y) were more positive compared with their younger counterparts (20-29y and 30-39y)
- Effect of Gender (scale D)
 - $F(1,311)=10.63$; $P<0.001$
 - Males were more positive
- No effects:
 - number of self-identified professions
 - number of professions regularly interacting in own work

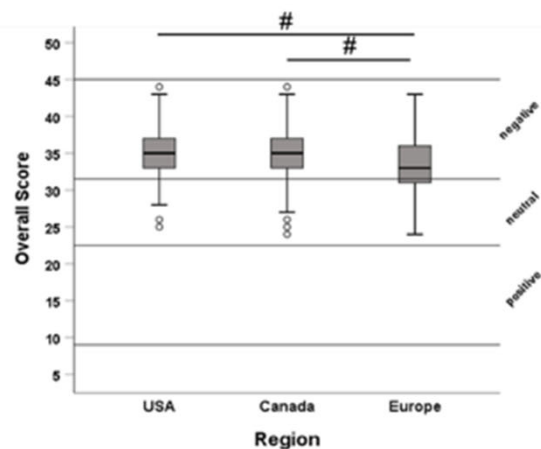
A. Communication and Teamwork scale



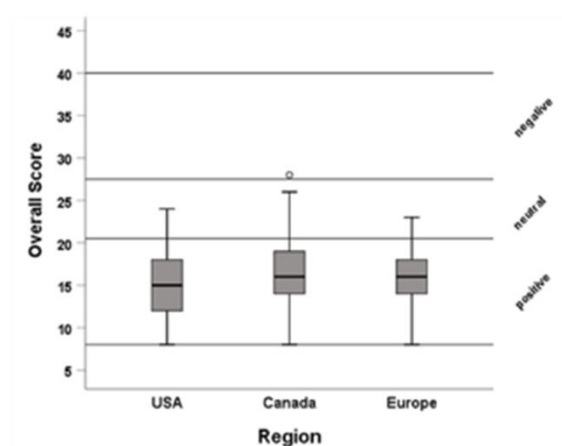
B. Interprofessional Learning scale



C. Interprofessional Interaction scale



D. Interprofessional Relationship scale



Box plots show the median (horizontal line), the interquartile range (25th-75th percentile), the whiskers (1.5 x interquartile range) as well as outliers (open circles, >1.5-3 x interquartile range; asterisks, >3 x interquartile range). # indicates a significant difference ($P < 0.05$).

Conclusions on Descriptives and IPE/IPC

Differences in several demographic variables could be identified (e.g. type of employment, number of self-identified professions, personal experience with IPE)

On average, clearly positive attitudes towards Communication & Teamwork, IP learning and IP relationship were documented

Only in IP interactions negative perceptions were found

Conclusions on Descriptives and IPE/IPC

- Professionals in Sport Science and Sports Medicine clearly value IPC and IPE but they do not feel that the systems in USA, Canada and Europe support IPC
- Thereby, the interregional exchange and learning from each other could be promoted and the visibility of IPE and IPC in SSSM



Overall Job Satisfaction - by socio-demographic parameters

- The ANOVAS revealed...
 - ...no significant influence of personal experience of IPE on overall JS
 - ...a significant influence of personal experience where IPC impacted patient/client outcomes on overall JS could be demonstrated [$F(3,316) = 5.05$; $P = 0.002$]
 - Group comparisons revealed a significant ($P = 0.009$) higher overall JS in respondents reporting positive impacts in their personal experience with IPC compared with those who responded mixed impacts

	Total [numbers in each case values]]	Sample (percent (Mean \pm SD)	Job Satisfaction (Mean \pm SD)
Gender			
Male	143 (44.7)		6.2 \pm 0.9
Female	177 (55.3)		6.1 \pm 1.1
Age (y)			
20-29	112 (35.0)		6.0 \pm 1.0
30-39	109 (34.1)		6.1 \pm 1.1
≥ 40	99 (30.9)		6.3 \pm 0.9
Scope of Work			
<20 h/week	30 (9.4)		5.7 \pm 1.2
20-42 h/week	157 (49.1)		6.3 \pm 0.9
>42 h/week	130 (40.6)		6.0 \pm 1.0
Number of self-identified professions			
1	178 (55.6)		6.1 \pm 1.0
2 or more	142 (44.4)		6.1 \pm 1.0
Number of professions regularly interacting in own work			
1-3	96 (30.0)		6.1 \pm 0.9
4-6	134 (41.9)		6.1 \pm 1.0
≥ 7	90 (28.1)		6.1 \pm 1.2
Personal experience with IP education in own education			
Yes, in professional education (pre-certification)	47 (14.7)		6.2 \pm 1.0
Yes, in continuing education (post-certification)	107 (33.4)		6.2 \pm 0.8
Yes, in continuing education (post-certification)	62 (19.4)		5.9 \pm 1.0
No	104 (32.5)		6.1 \pm 1.2
Yes, both pre- and post-certification			
Personal experience where IP collaboration impacted patient/client outcomes			
Yes – positive impact	175 (54.7)		6.3 \pm 0.9
Yes – negative impact	3 (0.9)		5.0 \pm 1.7
Yes – mixed impact	115 (35.9)		5.9 \pm 1.2
No	27 (8.4)		5.9 \pm 1.0

Data are Mean \pm SD. The possible score for each item ranges between 1 (extremely dissatisfied) and 7 (extremely satisfied).

Job Satisfaction - Region specific analyses

- On average respondents are most satisfied with the freedom of working methods and most dissatisfied with the rate of pay and the hours of work
- There seem to be region specific differences with the satisfaction in the rate of pay and the overall job satisfaction

	Total Sample (n=320)	USA (n=83)	Canada (n=179)	Europe (n=58)	F-Value	P-Value ^a
Physical working condition	6.0 ± 1.0	6.0 ± 0.9	6.0 ± 1.1	6.2 ± 0.8	0.48	0.617
Freedom of working method	6.3 ± 0.9	6.3 ± 0.9	6.3 ± 0.9	6.4 ± 1.0	0.21	0.807
Colleagues and fellow workers	6.0 ± 1.1	6.0 ± 1.0	6.0 ± 1.2	6.0 ± 0.9	0.02	0.978
Recognition for work	5.5 ± 1.5	5.4 ± 1.5	5.4 ± 1.5	5.8 ± 1.2	1.85	0.159
Amount of responsibility	6.0 ± 1.2	6.0 ± 1.3	6.0 ± 1.2	6.0 ± 1.1	0.03	0.974
Rate of pay	4.8 ± 1.8	4.5 ± 1.9	4.8 ± 1.8	5.2 ± 1.3	3.09	0.047
Opportunity to use abilities	5.9 ± 1.2	5.9 ± 1.3	5.9 ± 1.2	5.9 ± 1.1	0.03	0.967
Hours of work	5.3 ± 1.6	5.2 ± 1.7	5.4 ± 1.5	5.3 ± 1.6	0.48	0.621
Amount of variety in job	6.1 ± 1.2	6.0 ± 1.1	6.0 ± 1.2	6.3 ± 0.9	1.55	0.214
Overall job satisfaction	6.1 ± 1.0	5.9 ± 1.2	6.2 ± 1.0	6.3 ± 0.9	3.19	0.042

Data are Mean ± SD. The possible score for each item ranges between 1 (extremely dissatisfied) and 7 (extremely satisfied).

Job Satisfaction - Regression Analyses

- Regression Analyses
(Which items predict overall JS most?)
- Overall Job Satisfaction in the total sample is best predicted by:
 - Opportunity to use abilities
 - Recognition for good work
 - Physical working conditions

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Your opportunity to use abilities	0.64***	0.46***	0.42***	0.31***	0.26***	0.26***	0.27***
The recognition you get for good work		0.36***	0.29***	0.27***	0.25***	0.23***	0.20***
The physical working conditions			0.23***	0.20***	0.18***	0.15***	0.13***
The amount of variety in your job				0.21***	0.19***	0.20***	0.20***
The freedom to choose your own method of working					0.16***	0.15***	0.13**
The hours of work						0.13***	0.12***
Your colleagues and fellow workers							0.09*
R ²	0.41	0.51	0.56	0.58	0.60	0.61	0.62
Adjusted R ²	0.41	0.50	0.55	0.57	0.59	0.60	0.61

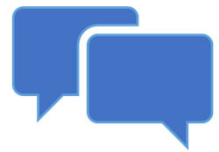
Results of the stepwise regression analysis including the whole sample (n=320) and adjusted beta-coefficients; *** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$.

Collinearity analysis gave VIF between 1.00 and 1.91 as well as a tolerance from 0.52 to 1.00.

Conclusions on Job Satisfaction

- A significant influence of personal experience where IPC impacted patient/client outcomes could be demonstrated
- There seem to be region specific differences with the satisfaction in the rate of pay and the overall job satisfaction
- To improve job attractiveness in SSSM professionals, following topics should be addressed in particular
 - Opportunity to use abilities
 - Recognition for good work
 - Physical working conditions





Discussion





Open-Ended Items

In my opinion, the title of Athletic Trainer indicates the following professional role and responsibilities.

What else would you like to tell us?

In my opinion, the title of Athletic Trainer indicates the following professional role and responsibilities.

United States

- *A healthcare professional who collaborates with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic and rehabilitation of injuries and medical conditions. Athletic training is recognized by the American Medical Association (AMA) as a healthcare profession. Athletic Trainers are educated and trained in five major practice domains Prevention Clinical Evaluation and Diagnosis Immediate and Emergency Care Treatment and Rehabilitation Organization and Professional Health and Well-Being.*
- *Everything - prevention, immediate care, evaluation, diagnosis, referral, rehabilitation and return to play. Concussion gold standard provider. Advocate for patients. Liaison with patient and other areas of medicine.*
- *First line of defense in athletic competition. Evolving into 24 hour healthcare for student-athletes from illness, setting up appointments, talking with parents, coaches, administration, other healthcare providers. Concierge to healthcare.*



In my opinion, the title of Athletic Trainer indicates the following professional role and responsibilities.

Canada

- *A person responsible for the care and health of their athletes within their athletics setting. They are responsible for coordination of that care and being the point of contact for other disciplines with regards to that person. Responsible to the promotion of a healthy lifestyle, injury prevention care, rehabilitation of orthopaedic injuries and education.*
- *All aspects of orthopedic and performance well being of an athlete, from the prevention of injury through to maximal performance. As well as the skills to quickly assess timely return to play and emergency on-scene support during acute injury.*
- *An Athletic Trainer works along side medical staff of various sporting levels. Is responsible in the care of the athletes pre, during and post games. Also responsible for the training programs of the athletes.*
- *An individual who works with athletes of any level with respect to prehab, rehab, return to play, emergency first responder care, and mental challenges related to sport and even their personal lives.*



In my opinion, the title of Athletic Trainer indicates the following professional role and responsibilities.

Europe

- *A person who plans, coordinates, supervises, analyses and reevaluates the training in terms of basic conditioning (speed, strength, agility, endurance,...) for his/her athletes. Sport- or technique-specific training sessions may be in the area of the head trainer...*
- *A Physical Therapist specialized on athletes and/or people using Physical activity for the benefit of patients*
- *Clinical diagnosis and treatment of all athletes and also general public, necessity to consult with other healthcare professional if a patient needs to be referred, on pitch advanced first aid treatment, more hands on treatments than PT*
- *It has different meanings in different countries, depends on where you practice. Example in Italy trainer is physical trainer of team. In the United States I feel the role of the trainer is fully understood and appreciated.. in Ireland the role of trainer is not understood by the general population.*



What else would you like to tell us?

- *I believe that an interprofessional relationship between all of these specialties is very important for proper management, treatment, and patient care.*
- *I have a lot of experience working at an international level with physiotherapists and sport therapists from all over the world and have found the experience extremely enriching.*
- *Overall the best way for patients is interdisciplinary collaboration and has been the most effect in treatments with the majority of patients I have seen.*

What else would you like to tell us?

- *I think the collaboration of medical professionals is more frequent in socialized medicine areas (universal healthcare). It is not a perfect medical system but lends itself to collaborations to hold account of tax payer money.*
- *In Canada, Athletic Therapists are seemingly the lesser heard of profession it appears when it comes to health care. One of our bigger limitations when it comes to allowing collaboration is lack of insurance coverage. There are many clients/patients that sometimes we cannot reach due to the lack of insurance coverage, which needs a change to help with opening up interprofessional collaboration.*
- *I don't know what the situation in USA, but in Canada few people know what is a athletic therapist. We are not recognized at our fair value.*

What else would you like to tell us?

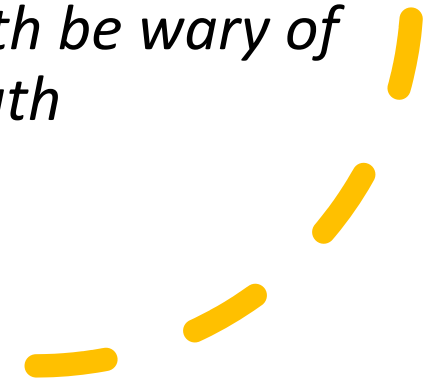
- *There are day-to-day duties an AT has that go above and beyond what is expected, and this is rarely compensated in the USA.*
- *I am a strong advocate for changing the title from Athletic Trainer to something more broad. It is hard to overcome arguments that ATs can only address athletic issues when "Athletic" is in the title.*
- *Athletic training could benefit from interprofessional education and learning as a way of better communicating its roles and responsibilities to other health care professions. This could help advance the profession in the eyes of other health care professionals, but also with the general population.*

What else would you like to tell us?

- *At undergraduate level in Ireland, I have had opportunities to work closely with my nursing and occupational therapy and medical colleagues. I found this experience extremely helpful at undergraduate level and now I make a conscious effort to foster and develop good working relationships with my professional colleagues. I feel this leads to better outcomes overall for our patients*
- *The ultimate goal of any health care professional is to assist the individual in attaining their highest functional ability, not feeding their own ego. By working with a team of health care providers, in all levels of health care, focusing on the what the individual needs to attain their goals, is what our ultimate goal should be.*

Summary

- *Sports Medicine is multi-disciplined; (athletic) trainers, physical therapists, osteopaths, radiologist, team physicians all working together. In my own practice I have athletic trainers and physiotherapists working together.*
- *We can all learn from each other.*
- *Listen to those who seek the truth be wary of those that say they know the truth*
 - John Gildea



Thank you –
Questions?

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