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Internship at Sport Science undergraduate courses: A scoping review



Verónica Gabriela Silva Piovani^{a,b,*}, Suelen Vicente Vieira^{b,c,d}, Jorge Both^{b,e},
Ieda Parra Barbosa Rinaldi^{b,f}

^a Universidade Estadual do Oeste do Paraná (Unioeste), Rua Pernambuco 1777, Centro, Marechal Cândido Rondon, Paraná State, Brazil

^b Graduate Studies in Physical Education Associated Program Universidade Estadual de Londrina/Universidade Estadual de Maringá, Rodovia Celso Garcia Cid, PR-445, Km 380 - Campus Universitário, Londrina, Paraná State, Brazil

^c Municipal Department of Education, Maringá City Hall. Av. Itororó, 867 - Zona 2, Maringá, Paraná State, Brazil

^d Centro Universitário de Maringá (Unicesumar), Avenida Guedner, 1610, Maringá, Paraná State, Brazil

^e Universidade Estadual de Londrina (UEL), Rodovia Celso Garcia Cid, PR-445, Km 380 - Campus Universitário, Londrina, Paraná State, Brazil

^f Universidade Estadual de Maringá (UEM), Av. Colombo, 5790 / Bloco M06 - Sala 15, Campus Universitário, Maringá, Paraná State, Brazil

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ABSTRACT

The study mapped the evidence about the internship in Sport Science courses by a scoping review. The used databases were Web of Science, Scopus, Scielo, Lilacs, Redalyc and Cinhal. The research strategy used the Boolean term AND with keywords selected in English, Portuguese and Spanish. Data collection period was since June to December of 2018. After the search 18 studies produced between the period of 1987 and December of 2018 were selected. Two reviewers did the qualitative analysis of the results to define main themes and categories of findings related. The main themes were: Knowledge, abilities and attitudes related to internship; Structural and Organizational aspects of Internship; Internship supervision; Internship experiences; Pedagogical and Methodological aspects of Internship development and; Student's Characteristics related to Internship. The findings addressed similar problems and positive points in different countries and courses, which could improve practical experiences at the internship in SS undergraduate courses.

1. Introduction

The internship is an important phase of the professional development of Sport Science (SS)¹ undergraduate courses, because the experience of “doing” shapes the identity and practices of SS professionals (Murray, Zakrajsek, & Gearity, 2014). The SS is an applied area where knowledge and expertise are successfully developed inside and outside the classroom (Brown, Willett, Goldfine, & Goldfine, 2018).

The internship offers practical application of knowledge and skills learnt at the coursework in a supervised real world setting (Dorgo, 2009). Also, it provides students a smooth transition into the profession, networking, development of communication and interpersonal skills, employment opportunities and engagement in meaningful tasks (Crowell, 2018; Nunley, Pugh, Romero, & Seals,

* Corresponding author. Rua José Clemente 782, apto 404, Zona 07, Maringá, Paraná State, Brazil. CEP: 87020-070, Brazil.

E-mail addresses: veropiovani@hotmail.com (V.G. Silva Piovani), suelen.vv91@gmail.com (S.V. Vieira), jorgeboth@yahoo.com.br (J. Both), parrarinaldi@hotmail.com (I.P. Barbosa Rinaldi).

¹ SS - Sport Science courses is the name we adopted to refer to the professional undergraduate education area named by many ways as “Exercise science”, “Kinesiology”, “Physical Education Bachelor” or “Leisure and Recreation Bachelor”.

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2016). So, the internship as a field-based learning experience is considered important by faculty, students, and employers, and can affect career trajectories (Nunley et al., 2016).

Therefore, the internship has become a common component of professional preparation programs in the SS field in different countries (Dieffenbach, Murray, & Zakrajsek, 2011; Malone, 2017). However, higher education has not always valued practice experience (Jackson, Lower, & Rudman, 2016) and used to situate field experience and professional preparation subjects (e.g. exercise prescription, testing and implementation) behind academic preparation content areas (e.g. muscle physiology, kinesiology) (Elder, Pujol, & Barnes, 2003).

Although students could acquire knowledge in an unstructured internship, the job/coach supervisor does not have much influence on the intern learning process (Murray et al., 2014) and it does not certify the adequate development of the SS course and the future employment of their graduates (Milistetd, Duarte, Ramos, Mesquita, & Nascimento, 2015).

In order to attend to the demands of the SS profession, university programs and professors need to develop effective models of quality internships (Hebert, Wood, Jenkins, & Robison, 2017; Murray et al., 2014). Then, research-based recommendations are important to improve the quality of curricula and student's skills. Nevertheless, there is little information about how SS internships work in different contexts.

Hence, to develop proposals for quality internships, it is necessary further investigation about the SS courses internship best practices and procedures, the evaluation, the supervision and the inclusion of all stakeholders views and experiences (Brown et al., 2018; Marinho & Santos, 2012). Because these aspects have implications on the quality of undergraduate courses and; on the improvement of students skills and employers hosts.

Moreover, studies address specific cases researches about the subject or are related to the internship in the Physical Education Teaching Degree, as it was found in previous studies in the Brazilian reality (Anversa, Bisconsini, Teixeira, Barbosa-Rinaldi, & Oliveira, 2015; Marinho & Santos, 2012). Thus, the aim of the study was to analyse the findings of primary studies about the internships in undergraduate SS courses in different countries by a scoping review (Peters et al., 2017) to provide an overview for informing and improving the internship experiences in this area.

2. Methods

The review followed the Joanna Briggs Institute (JBI) methodology for scoping reviews. A scoping review maps broad areas for finding gaps in the evidence, clarifies concepts, and reports the types of evidence observed in studies, which inform the practice in certain areas (Peters et al., 2017). The scoping review started with the question review: what has the primary investigations about the internship at SS undergraduate courses found?

The review included quantitative and qualitative studies that researched students (graduate and undergraduate), teachers, mentors or clients/participants who took part in the internship at SS courses. In addition, systematic review that met the inclusion criteria was considered. Text, opinion and practical papers without a methodological description or procedures were not included because they did not offer credible results.

Furthermore, the study included articles published in English, Portuguese and Spanish from January of 1987 to December of 2018. The selected period considered the Brazilian context because the researchers are interested in improving the internships of SS courses in Brazil. And, in Brazil in 1987 occurred the separation of higher education of Physical Education professionals to work at health promotion, sport and leisure areas from the Physical Education teaching degree (Brasil, 1987). Therefore, the criteria could help in searching articles in Portuguese, as well as did not compromise the search of articles in other languages and in other countries. The period of data collection was from June to December of 2018.

The search strategy aimed to find published studies. The databases used were Web of Science (ISI), Scopus, Scielo, Lilacs, Redalyc and Cinhal. These databases include indexed journals from different countries. The reference list of all studies selected for critical appraisal was screened for additional studies.

The keywords selection was done by a first exploratory search in the articles on the subject of study in the Scielo and Lilacs databases published in English, Portuguese and Spanish between 2013 and 2018 (5-year period). Also followed a critical appraisal in each culture, because there are different denominations for the concept of internship and SS courses in different countries (e.g. most of Latino American Spanish speaking countries have Physical Education courses to prepare professionals to work at competitive sport, health promotion and scholar PE too). Therefore, the research strategy used the Boolean term AND with the following keywords in English: internship; trainee period; supervised period of training; staff development; physical education course; physical education degree; physical education bachelor; physical education graduation; leisure; recreation and sport. The terms in Portuguese were: *estágio curricular*; *estágio obrigatório*; *estágio supervisionado*; *residência multiprofissional*; *curso de educação física*; *educação física bacharelado*; *graduação em educação física*; *educação profissional em saúde pública*; *saúde da família*; *lazer*; *recreação*; *treinamento esportivo* and *esporte*. Finally, the words in Spanish were: *práctica docente*; *desarrollo de personal*; *graduación en educación física*; *licenciatura en educación física*; *recreación*; *tiempo libre y ocio*; and *deporte*.

All the identified citations were collated and uploaded into Mendeley (Reference management software and network) and duplicates removed. Titles and abstracts were screened by two independent reviewers for assessment against the inclusion criteria for the review. Studies that met the inclusion criteria were retrieved in full and their details imported into JBI System for the Unified Management, Assessment and Review of Information (SUMARI). The full text of selected studies were evaluated in detail against the inclusion criteria.

Two independent reviewers with experience in SS higher education performed data extraction using a data extraction tool developed for the study. The data extracted included specific details about the population, concept, context, study methods and key

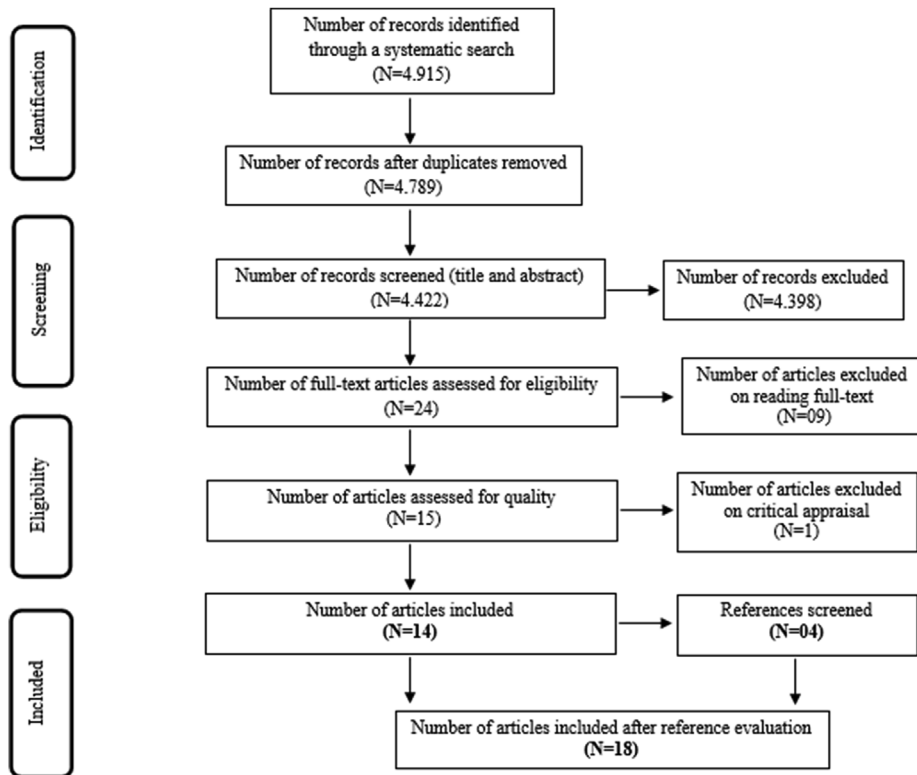


Fig. 1. Flow diagram of the search process and selection strategy.

findings considering the review objective. After data extraction, the reviewers did the qualitative analysis of the results to define the main themes and categories of findings evidenced in the articles using the JBI SUMARI for scoping reviews. The main themes and categories related were defined by each reviewer regardless, using a category system construction that consisted of the analysis of the principal reference units of findings described in the articles (Bauer, 2015). After that, the reviewers discussed together for reaching consensus of each category and the main themes analyzed. All the disagreements among the reviewers was resolved through discussion and in some cases by the intervention of a third reviewer.

The Preferred Reporting Items for Systematic reviews and Meta-Analyse (PRISMA) flow diagram below presents the studies selected after doing the database search. In addition, the flow diagram includes the references screened from the final studies selected in the databases (Fig. 1).

3. Results and discussion

Most of the studies focused on the internship at the Physical Education Bachelor course in Brazil (05 studies), followed by the Sport and Recreation/Exercise Bachelor degree in New Zealand (04 studies). The samples were mainly internship students, followed by academic and job supervisors, and course/programme coordinators.

The main research approach evidenced was qualitative (12 studies). The data collection instruments used in qualitative studies were the interviews (08 studies), the focus groups interviews (03 studies), documental analysis form (03 studies), questionnaire/survey (01 studies) and participant observation (02 studies). The qualitative-quantitative studies instruments were questionnaire/survey (04 studies) and focus group interview (01 study). Finally, the quantitative approaches used questionnaire/survey (01 study) and register form (01 study) (Table 1).

The publication sources were principally the Asia-Pacific Journal of Cooperative Education and the Journal of Hospitality, Leisure, Sport and Tourism Education (03 studies each one). The articles were published after 2003, being the period from 2015 to 2018 that concentrated more publications (12 studies) (Table 2).

Upon carrying out qualitative analysis of the articles evidences, six main themes derived with different categories of findings related to them. The categories of findings and the studies related are listed below in Fig. 2.

The theme “Knowledge, abilities and attitudes related to internship” discusses the evidence about the necessary knowledge that must be learnt (or that have not been learnt) during the internship for an adequate professional development. “Structural and Organizational aspects of Internship” describes the results that showed the importance of the elaboration and development of curriculum in the internship process. The “Internship supervision” analyses the evidence about the incidence of coach/job and academic supervisor in the internship, especially at the intern’s learning and development. The theme “Internship experiences” argues the

Table 1
Description of studies countries, authors and research approaches.

STUDY'S AUTHORS	STUDY'S COUNTRY
Qualitative Research Approach	
Tinning, Jenkins, Collins, Rossi, and Brancato (2012)	Australia
Hall, Pascoe, and Charity (2017)	Australia
Silva (2003)	Brazil
Silva, Souza, and Checa (2010)	Brazil
Milistetd, Brasil, Salles, Tozetto, and Saad (2018)	Brazil
Torres, Antunes, Sousa, and Silvio de (2018)	Brazil
Christensen, Henriksen, Thomsen, Lund, and Mørcke (2017)	Denmark
Fleming and Martin (2007)	NZ ^a
Martin, Fleming, Ferkins, Wiersma, and Coll (2010)	NZ
Fleming (2015)	NZ
Desai and Seaholme (2018)	NZ
Gomes, Jones, Batista, and Mesquita (2016)	Not specified
Quantitative-qualitative Research Approach	
Vilela and Both (2016)	Brazil
Cheung, Kwok, and Choi (2017)	Hong Kong
Dieffenbach et al. (2011)	USA
Zakrajsek, Thompson, and Dieffenbach (2015)	USA
Quantitative Research Approach	
Ramos and Murillo (2015)	Colombia
Lu and Kuo (2016)	Taiwan

^a NZ: New Zealand, USA: United States of America.

Table 2
Publication sources, country and publication period.

Publication Sources	Source Country	Nº of studies	Period 2003–2014	Period 2015–2018
Asia-Pacific Journal of Cooperative Education	New Zealand	03	–	03
Journal of Hospitality, Leisure, Sport and Tourism Education	UK ^a	03	02	01
Revista Brasileira Ciência e Movimento	Brazil	02	01	01
European Physical Education Review	UK	01	01	–
Higher Education, Skills and Work-Based Learning	UK	01	–	01
International Journal of Coaching Science	UK	01	01	–
Motricidade	Portugal	01	–	01
Motriz	Brazil	01	01	–
Movimento	Brazil	01	–	01
Revista Latinoamericana de Estudios Educativos	Colombia	01	–	01
Sport, Education and Society	UK	01	–	01
Sports Coaching Review	UK	01	–	01
Book Chapter	Singapore	01	–	01
Total		18	06	12

*USA: United States of America.

^a UK: United Kingdom.

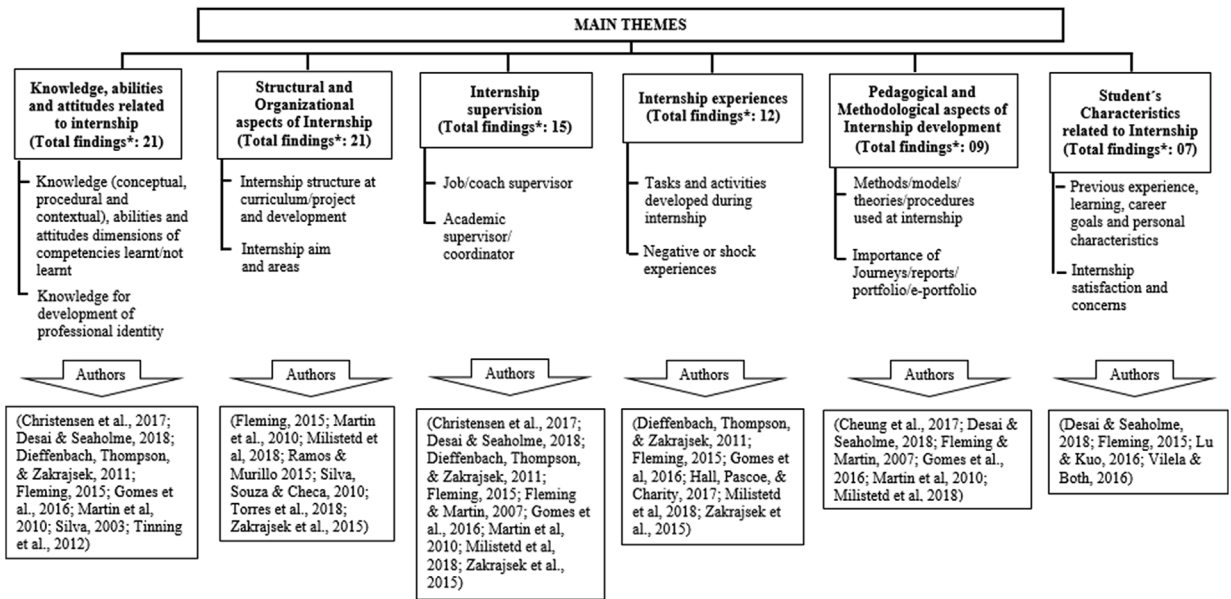
positive activities the interns developed during the internship, as well as negative experiences they had. The “Pedagogical and Methodological aspects of Internship development” assesses the evidence about the teaching and learning methods, theories and procedures used at the internships. Finally, the “Student's Characteristics related to Internship” analyses the evidence that highlighted the influence of student's history, motivation and feelings during the internship learning process.

3.1. Knowledge, abilities and attitudes related to internship

The internship is described as an important component of professional learning because it promotes the development of “soft skills” to a level that is restricted with classroom-based teaching (Malone, 2017). At this point studies analyzed evidenced that the internship offers a space for deep learning (Christensen et al., 2017) and “has its own unique educative potential” (Tinning et al., 2012, p. 243), being more than a space to practice what is taught in the university setting.

This is described by Greco (2012) as “the sport coach who only knows about training, does not really know about training”. Because SS professional needs to develop competencies such as responsibility, autonomy, creativity, organization, emotional control, interpersonal skills, confidence, knowledge actualization, leadership, scientific and technical sense (Silva, 2003).

Then, Physical Education professional competencies that include the *knowledge (conceptual, procedural and contextual)*, *abilities and attitudes* (Feitosa & Nascimento, 2006) necessary for an adequate professional intervention learnt or not learnt were highlighted during the internship.



*Each finding corresponds to an evidence found in each study, so there are more findings than articles cited in the analysis performed.

Fig. 2. Main Themes, categories of findings and studies related.

Key areas of conceptual Knowledge related to students learning at the internship included sport science issues (nutrition, over-training) (Dieffenbach et al., 2011), and industry and business knowledge (Martin et al., 2010). Interestingly, within the conceptual knowledge that the students manifested not having achieved there were evidence based practice, periodization, exercise cues, Olympic lifting training techniques and research skills (Desai & Seaholme, 2018). In this case, it is important to remember that conceptual knowledge constitutes the specific theoretical and technical Knowledge of the SS area (Feitosa & Nascimento, 2006). So that absence or incomplete learning of it during the SS course compromises the credibility and future professional development of the SS graduates.

On the other hand, between the procedural knowledge that is composed by the didactical aspects of teaching the SS contents (Feitosa & Nascimento, 2006), Dieffenbach et al. (2011) evidenced coaching game strategies, teaching strategies and understanding individual differences. Likewise, among contextual knowledge that is the knowledge about specific characteristics and functions of the institutions/job places (Feitosa & Nascimento, 2006), Martin et al. (2010) found organizational skills and customer service management.

Although is frequently reported that universities do not attend enough the development of behavioural skills for professional life (Coll & Zegwaard, 2006), some studies identified that internship students of Exercise Science and Sport and Recreation Bachelor courses improved their interpersonal skills (Martin et al., 2010; Tinning et al., 2012). Other abilities learnt or important to be learnt cited by internship students were administrative responsibilities (organization and time management), problem solving (Tinning et al., 2012), leadership and motivation (Dieffenbach et al., 2011).

The personal skills and attributes that students developed at the internship were: confidence, the importance of hard work and having patience, responsibility and ethics attitudes (Dieffenbach et al., 2011; Martin et al., 2010). In this way, different authors emphasize that work integrated programs (as the internship) must provide graduates with a comprehensive skill set desired by future employers (Fleming & Ferkins, 2006; Martin & Hughes, 2009).

Moreover, the abilities, attitudes and knowledge promoted by the internship were also related to the *development of the professional identity*, because they could impact career trajectories (Nunley et al., 2016). Gomes et al. (2016) highlighted the concept of "political literacy", which is appreciating the social and political 'landscapes' of the placement organizations, learnt by the internship students researched. Therefore, Dieffenbach et al. (2011) found that coaching course students in the United States felt they developed professional skills related to the job of coaching such as: not being able to please everyone, the difficulties associated with decision making, and the long work hours associated with the work field.

Else, Christensen et al. (2017) evidenced in a multiple case study with students of Medicine, Nurse and Sports Science courses of Denmark that the activities developed at the professional space were much related with the professional identity than the tasks did at the simulated space of practice. Desai and Seaholme (2018) found through focus group of a Bachelor of Exercise and Sport Science degree in New Zealand that at the end of the internship, the students understood the behaviors of an effective strength and conditioning professional. They were skilled at reflecting on their own practice and knew what further professional development was required to progress. In addition, Fleming (2015) evidenced that interns developed critical reflection when were stimulated to think about their practices and wrote journals (Silva, 2003).

So, a structured internship, based in a situated learning approach may be an effective way to improve the graduate's readiness to

enter the job market, could influence the credibility of the profession (Murray et al., 2014) and may promote the commitment to the profession (Knouse & Fontenot, 2008). Furthermore, fostering reflective coaches could motivate the appreciation of lifelong learning and self-reflection required to develop into an expert coach (Schempp, McCullick, & Mason, 2006).

Higher education must pay attention to what, how and from whom the students learn in the internship to clearly identify and determine which competencies need to be taught and learned during the SS internship. Then, in practice, professors, students and supervisors could be aware about what must be taught and learned during the internship, so they could explore different strategies to reach that competencies.

3.2. Structural and organizational aspects of internship

The *internship structure at curriculum/project and development* evidences that creating policies and documents that clearly describe aspects of the internship program is necessary (Hebert et al., 2017), because in many cases the internship and curriculum alignment was not clear, and was not according to law requirements (Torres et al., 2018).

In addition, studies in Brazil and with coaching education in the USA showed that there was a variety of internships dynamics, which did not offer properly professional formation (Silva et al., 2010; Zakrajsek et al., 2015). In the study of Zakrajsek et al. (2015) very few (17%) examined programs were accredited by the National Council for Accreditation of Coaching Education. Higher education in other areas in the USA, as nurse and teaching, formalized and structured the internship following required program evaluation for accreditation procedures. Then, these areas identify practices that are congruent with student and program outcomes. However, coaching education has not standardized these experiences (Dieffenbach et al., 2011; Zakrajsek et al., 2015).

On the other hand, the lack of definition about supervision support at curriculum was found as a difficult to improve learning during the internship in Brazil. Although academic supervision is a mandatory role by law in Brazil, it was not present in all the universities of a study done in Rio de Janeiro. In addition, in the same research, the structure of the internship offered in public universities was partially supervised. The structure was according to law, but did not guarantee the supervision by the university and the integration of the parts in the learning process (Torres et al., 2018). Another problem evidenced was the number of interns per academic supervisor. Silva et al. (2010) found that one institution had one supervisor for 60 students, others had 30 students per one supervisor, five students per one supervisor and 200 students per one supervisor.

Despite the good or bad effects of the influence of coach supervisor in the student's behavior and beliefs may be long term, the relationship between student and coach supervisor is unstructured and has variable quality and outcome (Cushion, Armour, & Jones, 2003). For Zakrajsek et al. (2015) in the USA this variation exists because there are no standards or guidelines for effective student coach applied experiences. In fact, they exemplified that in the UK the Department of Education and Science constructed a guideline for coach supervisors, which include characteristics that coaches must have to be in that function. Therefore, the concern about supervision need to be attended by the internship curriculum structure because it is central in the quality of the internship experience (Zakrajsek et al., 2015).

The communication among the university, the host agencies, supervisors, students and professors of the course was highlighted as a necessity for developing the capacity of metacognition and establishing clear goals and objectives of the internship. Nonetheless, there was minimal evidence of direct explicit attempts to integrate on- and off-campus learning, although all parties expected this would occur and agreed it should occur. (Martin et al., 2010). Hence, it is important to emphasize that a strong relationship with host agencies and job supervisors would strengthen the educational experiences of the students and may beneficiate both the university and the community (Hebert et al., 2017), as it was found in the study of Ramos and Murillo (2015) in a Colombian university.

The *internship aims* described in the internship programs highlighted the idea that internship at the SS courses provides the student with the opportunity to apply theoretical knowledge to practical job situations, stimulates the experimentation and analysis of everyday situations to make connections with theory and practice, encourages the transfer of learning, and innovative ideas (Fleming, 2015). It is important to define these purposes, but also clear learning objectives need to be addressed. Because they give to the student, professors and supervisors a framework to use and facilitate reflection during and after the internship (Fleming & Martin, 2007).

Finally, dominant *areas* of internship were summarized in Colombia (community places and sport training) and the positive aspects of having multiple experiences of internship (Ramos & Murillo, 2015). The diversity of experiences during the internship is important because many students enter to the SS course with previous experience as athletes and this may influence their learning. Nevertheless, they must see that the roles and responsibilities of SS professionals are more complex and diverse than they lived as athletes (Schempp, Elliott, McCullik, Laplaca, & Berger, 2016).

Universities may consider evaluating how the internship program influence the effective development of the learning process and may invest time and efforts to write clear documents that really help professors, students, supervisors and host agencies.

3.3. Internship supervision

The supervisors are fundamental within the internship process (academic and job/coach supervisors), because they are ultimately responsible for giving a structured program of learning, feedback and reflection to student for developing into a qualified SS graduate professional (Malone, 2017). So it is desirable that faculty engages in mentoring (Anversa, 2017; Hebert et al., 2017) assuming that is a key way of human development where one person gives time, energy and personal knowledge to assist another individual in their growth and advancement (McKinley, 2004). A mentoring partnership is also beneficial for the supervisor because he/she learns from the feedback, insights and self-reflection of the internship (Nagle, Pierce, Abt, & Bernardo, 2009).

The *job/coach supervisor* would be a facilitator that offers opportunities of intervention to the student, support and orient for reflecting about the situations proposed (Anversa, 2017). Fleming (2015) and Desai and Seaholme (2018) described the value of job/coach supervisor who provided a structural model of the internship and managed that structure (balance among given autonomy, support and feedback). Other studies reported that job supervisors helped to bridge classroom knowledge and internship experience (Dieffenbach et al., 2011; Martin et al., 2010; Milistedt et al., 2018).

The *academic supervisor/coordinator* was considered important by the students and stakeholders in different studies because they influenced the learning process, through the support and guidance they provided. The academic supervisors helped the students to develop the necessary capabilities to be a reflective practitioner and integrate the learning (Fleming, 2015; Fleming & Martin, 2007; Martin et al., 2010).

However, some authors inform that mentoring provided by higher education is lacking and there is little being done for training the academic and job supervisors to the procedures for mentoring (Anversa, 2017; Nagle et al., 2009). Although, students reported positive experiences with their supervisors, there were some supervisory arrangements that were much different and students noted that the experienced coach/job supervisor they worked with did not provide guidance or meaningful supervision (Dieffenbach et al., 2011). Christensen et al. (2017) evidenced large variations in the relationship between students and teachers in terms of getting support or acting independently.

Moreover, Gomes et al. (2016) found the students felt a general lack of respect for their positions and learnedness by their coach supervisors. Coaches viewed internship as a lowly status and some kind of threat to them. Furthermore, Dieffenbach et al. (2011) described that students who did an internship at spaces where they had previously worked or had other experiences (e.g. as an athlete), had little diversity in experiences and more difficulties changing their role as an intern.

Malone (2017) describes that more experienced job supervisor who had an internship as part of his/her own development would give to the students better opportunities to develop their theoretical knowledge and skills. However, it is important to note that not all SS professional can become effective mentor/supervisor because their personal energy could be focused on other personal or professional goals. Therefore, a possibility to improve the mentoring process is to increase the amount of mentoring provided to a developing professional, give training tools, and programs to the mentor themselves (Nagle et al., 2009). In addition, universities need to address which qualities and characteristics the academic and job supervisor must have to improve the internship outcomes.

3.4. Internship experiences

One aspect that is necessary to enhance the transfer of learning from university to work is giving different activities and autonomy to students, using a variability of teaching methods to improve learning and stimulate cognitive flexibility (Macaulay, 2000). For this reason, the *tasks and activities developed during internship* must be robust and meaningful to maximize intern's learning and become properly prepared to work (Sauder & Mudrick, 2018).

Therefore, some of the studies analyzed emphasizes the positive effects of different experiences in the student learning because they offered the possibility of applying practical skills in an employment setting; networking; having internal reward and practicing skills learnt at university (Hall et al., 2017). Additionally, Dieffenbach et al. (2011) evidenced that internships provided valuable learning opportunities for doing certain coaching activities (creating team line ups, coaching during a losing situation and coaching during close or tight game conditions).

Milistedt et al. (2018) remarked as constructive activities during the internship the possibility of helping in the conduction of training activities under the supervision of the responsible coach, developing planning activities and evaluating the training. In addition, other situations as being capable of identifying the results in the activities developed, relating with the athletes and being involved in no conventional activities (as journeys for competitions) were highlighted as positive influence for students.

Moreover, coworkers support was identified by students as a key influence on their learning (Fleming, 2015), because they could give timely feedback and evaluation in a nonthreatening manner (Stratta, 2004). However, learning by the interaction of colleagues had to be limited when there are cultural and hierarchical constraints or lack of understanding and willingness of the coworkers to help the student experience (Fleming, 2015).

Whereas the studies identified a variability of experiences among the interns, Zakrajsek et al. (2015) said there was an overestimation of student coach experience in the internship. The program coordinators believed their students would receive a number of different coaching-related opportunities during their internship and opportunities to engage in a number of coaching-specific activities, however, that was not certainly proved. Then, between the experiences of internship there were found some *negative or shock experiences* lived by students as personal conflicts with the job supervisor, colleagues or clients (Hall et al., 2017), difficulties to insert at the internship places, lack of host by the clubs and other professionals (Milistedt et al., 2018).

Furthermore, the private context of internship places sometimes limited the intern development because the nature of coaching (insecure and often uncontrollable) does not allow the head coaches to relinquish any considerable degree of autonomy to neophytes (Gomes et al., 2016). Malone (2017) highlights that students often look for internships with high-profile teams, however he experienced that some of the best internships are often with lower level teams, because they can allow students the freedom to make mistakes and learn from them.

Hebert et al. (2017, p. 400) comment that the success of an internship experience for the students "is partially due to the procedures put into place before the internship begins". However, problems may still arise and then it is necessary good and sensitive communication between the academic supervisor and the student. And, if the problem is not solved after the academic supervisor intervention, the student may be removed to another place and the host agency may be excluded for future student's choice.

So more information need to be addressed about which are the desired characteristics of an adequate internship place and about

the decisions that need to be taken when something goes wrong at the internship place, in order to give a quick solution to the student. Likewise, it must be informed what internship experiences had better promote the transfer of learning among the students. Practical implications involve the idea that universities approve the sites and job supervisors before the internship starts and the student complete a pre-internship preparation as it is described by [Hebert et al. \(2017\)](#).

3.5. Pedagogical and methodological aspects of the internship development

The *methods/models/theories/procedures used at internship* involved the findings related to the main pedagogical approaches used. [Martin et al. \(2010\)](#) described as procedures/methods used to learn by students the reflective journals/assignments, the lectures/workshops, the group discussion and, the academic and industry supervisor feedback. Besides, the academic supervisors utilized to teach practical case studies, models, frameworks; problem solving, class discussion and, the job supervisors used employee focus and human resource management practices.

[Desai and Seaholme \(2018\)](#) described as positive the opportunity promoted by job supervisors to develop the autonomy of the students researched. Nevertheless, [Gomes et al. \(2016\)](#) registered that student's coaches lived the absence of clear working spaces and roles. They felt less autonomy to behave when competitive success was increasingly prized and they were used to 'fill' technical roles.

Results highlight the importance of promoting reflection about practices and the crucial role of interaction among all stakeholders. The interaction and communication between internship stakeholders refer to a key aspect for experiential learning: the concept of community of practice. Communities of practice are groups of people who share interests, passion about a topic and deep their knowledge and expertise by interaction. Nevertheless, for learning occurs through a community of practice three aspects are necessary: mutual engagement, a collective pursuit of a goal and shared knowledge and skills ([Wenger, 1998](#)).

In the case of reflection, it does not often come naturally and is a process associated with experienced practitioners ([Schön & Bayo, 1998](#)). So some authors ([Gibbs, 1988](#); [Moon, 2000](#)) proposed different models to develop reflection-before-action that is originated by reflection-on-action and reflection-in-action. These models propose a sequence of reflective stages that move through noticing, making sense, making meaning, working with meaning and, in some cases formulate a transformative plan ([Martin et al., 2010](#)).

These stages could be related to different strategies found in the studies commented above and to the *importance of Journeys/reports/portfolio/e-portfolio and classmate exchange at internship* described by [Cheung et al. \(2017\)](#), [Fleming and Martin \(2007\)](#), and [Milistetd et al. \(2018\)](#). The journals encouraged reflective practice by registering critical events. However, some students found it quite challenging, then a strategy described as helpful was the use of triggering questions to guide them with the writing process ([Fleming & Martin, 2007](#)).

[Cheung et al. \(2017\)](#) evidenced positive and negative aspects of e-portfolio. Among the positive aspects, there were the improvement of student's technological skills, the possibility of the assessment to be linked to the curriculum vitae to demonstrate their rich job experiences and upload their activities plans by multimedia format that would enhance sharing and discussion of the activities plans. As negative aspects appeared the limited skills in technology and the amount of time needed for creating the e-portfolio and they had some reservations on using the e-portfolio for assessment.

Another point cited by [Martin et al. \(2010\)](#) was the strategies of evaluation proposed in documents: industry evaluation forms, logs and reflective journals, oral presentations, written critical reflections and final written reports. At the internship the evaluation must be an instrument to provide information for identifying areas that need improvement, determining the student grade and programing assessment data ([Hebert et al., 2017](#)).

More analysis about the use of different learning strategies at the internship and their effectiveness in the wide range of job situations found in the SS profession must be performed. In practice the students, academic and job supervisors need to be engaged with the internship. The supervisors need to be good leaders and students need to make the effort to think about their activities before, during and after, with the supervisor's guide.

3.6. Student's characteristics related to internship

The *previous experience, learning, career goals and personal characteristics* influence student's learning at the internship because the structure of knowledge is based on what the individual experiences and how he/she understand this experience trough his/her interests, values and affective filters. This interpretation leads to the apprentice experience categorization ([Billet, 1994](#)).

Thus, the students' attitude was identified by stakeholders and students as a major influence on learning, because for a good supervision relationship the students need to take ownership of their learning ([Fleming, 2015](#)). [Lu and Kuo \(2016\)](#) also found that internship students with higher proactive personality would possess higher self-efficacy and this would influence job performance. Likewise, [Vilela and Both \(2016\)](#) described age differences considering the students types of concerns with the internship.

Internship satisfaction described the students had a positive emotional state with the internship because it gave them ownership, displaced them from their comfort zones and got on with the business of being strength and conditioning professionals ([Desai & Seaholme, 2018](#)). [Lu and Kuo \(2016\)](#) described that job satisfaction at the internship was mediated by self-efficacy and related to proactive personality. Thus, the authors found that higher levels of satisfaction were related with the perception of self-efficacy, which is the belief that a person has about her/his abilities to do a particular task. This occurs because self-efficacy often rises the personal perception of control and the likelihood of success that contributes with motivation for proactive behaviors. Furthermore, people with proactive qualities could have strong predisposition toward learning.

The theory about the teacher's concerns proposed by [Fuller \(1969\)](#), which examined the focus of attention and tension involved in the teaching action, was applied in a research with Physical Education Bachelor interns of Brazil. This study evidenced that students

had concerns related to Fuller teacher's concerns, specially the "self" and "task" dimensions, which are related to survive and be recognized in the work place (self-concern), and to activities as planning and developing a training program (task-concerns). However, the students also had concerns related to "context" (administration and organization of the Internship) and "learning" (internship tasks and evaluation to approve the subject) dimensions (Vilela & Both, 2016).

Rookie professionals may be more concerned with self-concerns and would develop to task and impact (related to the consequences of teaching actions over students) concerns at the time they gain experience in the professional area, because according to Fuller (1969), the experience has an important role in the focus of teacher's concerns. However, studies with Physical Education teacher interns (Smith, & Sance, 1993; Silva Piovani, Both, & Nascimento, 2012) had found that concerns not only are influenced by the experience, they are also affected by student's characteristics and work/internship environment, as it was found in the study analyzed.

Further studies in higher education may investigate the effects of students' characteristics in the learning process for guiding strategies to motivate and stimulate the self-efficacy during the internship. In practice, the supervisors need to be more in touch with students to know about their feelings, goals for the internship, and career expectations, so they could give adequate advice in the different tasks the students face and manage the internship experiences in a meaningful way.

4. Conclusion

The present study found that the studies developed in different countries agreed with some questions, the internship is a unique structured and guided learning space for learning knowledge, abilities and attitudes necessary for being a SS professional and developing the professional identity. It promotes the transfer of learning by the opportunity of having active experiences of applying different knowledge and skills, and interacting with experienced SS professionals. Moreover, all the stakeholders are responsible for this process in some way, since it was evidenced that the quality of supervision, the nature of the tasks developed, and the attitude and motivation are key aspects of what and how the students learn.

Furthermore, the studies pointed out some difficulties and aspects that need to be improved for an adequate development of the SS internship. These problems are related to the curriculum approach and definition of learning objectives; the communication between the university and host agencies; the support and guidance offered by academic and job supervisors; the awareness of job supervisors about their role; the tasks offered to the students; and the preparation of the student for being conscious about the internship process and demands.

A limitation of the study was that the researched sources only included the articles available on the selected databases. Therefore, books, book chapters and thesis not available in databases were not included, excluding possible important evidence.

Further research may focus on the study and comparison of different university internship programs for proposing certain parameters necessary for developing an adequate internship program in the SS courses. In the same way, future studies could explore different internship's models to inform which the better experiences for student's learning development are. In addition, job supervisor and workplace colleagues' knowledge, preparation and willingness to work with an intern need to be explored in order to improve the SS internship learning process.

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