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1 Characteristics and experiences of interns in strength and conditioning

2

3 **Running Title:** Intern experience in S&C

4

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32

33 **Abstract**

34 Student coaches undertake internships to develop practical skills and gain experience  
35 to improve employability prospects. The characteristics of the coaches who undertake  
36 these internships, their experiences, and the nature of the work being performed are  
37 currently unknown. The purpose of this study was to report the characteristics of  
38 strength and conditioning (S&C) coaches who have undertaken internships and their  
39 experiences during their respective placements. 113 men and 6 women completed an  
40 on-line survey. Placements generally lasted 6 to 12 months (66%), were unpaid (93%),  
41 and took place at professional teams (63%). All respondents had a standard of  
42 experience prior to commencement (81.5%); a higher-education degree (bachelor's  
43 56%; master's 18%) and others were qualified S&C coaches (16%). Activities  
44 consisted largely of coaching (47%), data collection (22%) and equipment set up (25%)  
45 but lacked provision of appropriate training. Mentors were allocated to interns,  
46 however, often developmental objectives were not discussed, meetings were rarely  
47 documented, and in some cases, no meetings took place. This study suggests that  
48 internships offer worthwhile experiences, assistance in skill development to progress  
49 in S&C. However, clearer guidelines are required to define the responsibilities of  
50 employers and interns, to maximise these experiential learning opportunities and avoid  
51 the exploitation of willing students.

52

53

54 **Keywords:**

55 Coaching placements, students, mentoring, employment

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67 **Introduction**

68 The recognition of strength and conditioning (S&C) as a key part of athletic  
69 development has led to increases in the number of people who seek employment in this  
70 field. However, the number of applicants far exceeds the jobs available so there is  
71 considerable competition to secure employment as an S&C coach. As a result, students  
72 and graduates often undertake work placements or internships to develop their coaching  
73 skills and gain experience, with the aim of improving their employability prospects.  
74 This provides opportunities for prospective coaches to use their knowledge in applied  
75 settings (Pulver, 2002), including elements often underdeveloped in traditional  
76 academic programs such as exercise technique, program design and coaching (Elder,  
77 Pujol, & Barnes, 2003).

78

79 Given the importance of practical skills required to successfully deliver S&C coaching  
80 there is an expectation that applicants for professional jobs possess an appropriate  
81 standard of experience (Jeffreys & Close, 2013). This experience is often unattainable  
82 without the completion of an internship, so there has been a proliferation in the  
83 provision of S&C internships in recent years. However, there is an increased awareness  
84 that “internships” vary greatly and are far from uniform in nature. In spite of their  
85 popularity, available literature that examines the characteristics of the coaches who  
86 undertake these internships, their experiences, and the nature of the work being  
87 performed during these placements is sparse.

88

89 Analyses have described role delineations of an S&C coach (NSCA, 1988) and typical  
90 practices of high school (Duehring, Feldmann, & Ebben, 2009), collegiate (Durell,  
91 Pujol, & Barnes, 2003), and professional S&C coaches (Ebben, & Blackard, 2001;  
92 Ebben, Carroll, & Simenz, 2004; Ebben, Hintz, & Simenz, 2005; Simenz, Dugan, &  
93 Ebben, 2005). Replicable descriptions are not available for S&C intern coach roles;  
94 therefore employers lack guidance on the specific duties that are appropriate for their  
95 interns and also their own responsibilities in delivering an effective internship. This  
96 leads to a lack of structure and consistency across programs, and reduces the potential  
97 readiness of the intern to enter the profession (Murray, Zakrajsek, & Gearity, 2014).

98

99 Recent commentaries (Jeffreys & Close 2013; Murray et al., 2014) and position stands  
100 (Pye, Hitchings, Doggart, Close, & Board, 2013) have provided recommendations for  
101 employers (Jeffreys & Close 2013; Murray et al., 2014; Pye et al., 2013), mentors  
102 (Magnusen, & Petersen, 2012) and interns (Jeffreys & Close, 2013) on the features of  
103 a high-quality internship. However, few data are available on experiences of S&C  
104 interns. Consequently, it is not possible to gauge the effectiveness of internships and  
105 the extent to which industry standards are being upheld. This information will aid the  
106 development of high quality experiential learning opportunities and ensure employers  
107 maximise the potential both of their organisations and that of the student coach. The  
108 purpose of this study is to provide a detailed description both of the characteristics of  
109 S&C coaches who have undertaken internships and their experiences during their  
110 respective placements.

111

112

### 113 **Methods**

114

115 This study used a descriptive research design by means of an on-line survey to  
116 investigate the characteristics, roles, responsibilities and experiences of S&C coaches.  
117 The survey was emailed and completed remotely by each participant. One hundred and  
118 nineteen participants (n = 113 men, n = 6 women) completed the survey. Inclusion  
119 criteria were that each participant had either to be currently employed as an S&C coach  
120 or studying on an undergraduate or post-graduate degree, and had completed an  
121 internship in the last two years. In addition, the internship period had to be for a  
122 minimum duration of three months, and required attendance at the organisation for at  
123 least two sessions a week during that period. Participants were recruited by contacting  
124 academic institutions, professional sports clubs, national governing bodies and private  
125 organisations offering S&C programs that were either for students or athletes within  
126 the United Kingdom. Ethics approval was granted by the institutional ethics committee.

127

### 128 *Procedures*

129 An on-line questionnaire (appendix 1) was designed by a panel of experts that included  
130 S&C coaches, academics and researchers for the purpose of this investigation. The  
131 questionnaire was developed as per Ebben and Blackard (2001) whereby it was created  
132 by the authors and pilot tested with an informal advisory group of strength and

133 conditioning coaches. This approach has also been adopted in the questionnaire based  
134 papers of Duehring and Ebben, (2010); Ebben, et al., (2004) and Ebben, et al., (2005).  
135 The survey was divided into three sections: 1) characteristics of respondents  
136 undertaking internships; 2) details about the organisation at which the internships were  
137 completed; 3) participant's experiences during the course of their internship. These 3  
138 sections were extracted, on consultation with the expert panel, from the studies  
139 conducted by Ebben, & Blackard, (2001); Ebben, et al., (2004); Ebben, et al., (2005);  
140 Simenz, et al., (2005). Each section comprised closed multiple-choice questions. Data  
141 was collected between November 2013 and September 2014.

142

#### 143 *Statistical Analysis*

144 All data was collected using an on-line questionnaire (British Online Surveys, Bristol,  
145 UK). Data analysis procedures were descriptive in nature with frequency counts and  
146 percentages calculated. In addition, certain items in the questionnaire were scored on a  
147 5-point Likert scale anchored at 1 (strongly agree), 3 (neither agree nor disagree), and  
148 5 (strongly disagree).

149

150

## 151 **Results**

152

### 153 *Intern characteristics*

154 The vast majority of respondents were male (95%) and undertook their internship  
155 between the ages of 21 to 25 (61%). Prior to commencing their placement, the most  
156 frequently reported standard of education was a bachelor's degree in S&C or a sport  
157 science related discipline (56%), whereas, a master's degree was less common (18%).  
158 Experiences of the internship differed according to academic background with 23% of  
159 undergraduate students reporting a worthwhile experience and only 8% of postgraduate  
160 students. Accreditation by the UK Strength or Conditioning Association (UKSCA) or  
161 the National Strength and Conditioning Association (NSCA) was reported in over a  
162 quarter of the interns (28%). Other respondents were pursuing a sport science degree  
163 (24%) or vocational qualifications including personal trainer and sports therapy  
164 certification (2%). Previous experience was also evident with 82% of respondents  
165 attaining at least 1 year of coaching experience before their internship (figure 1).

166

167

168 \*\*\*\*\* insert figure 1 near here \*\*\*\*\*

169

170

### 171 *Organisations providing internships*

172 The most frequent organisational setting in which participants undertook their  
173 internship was at professional sports clubs (63%). Educational establishments provided  
174 the next largest opportunity for coaches (22%). National Governing Bodies (NGB's)  
175 accounted for fewer placements (12%) and a small minority completed at private  
176 coaching organisations (5%). A 5:1 ratio was the most frequently reported for the  
177 number of interns to employed staff (figure 2). Adult athletes (classified as over 18)  
178 were the most numerous supported by the coaching placements undertaken by this  
179 sample (66%), followed by young athletes aged 12 to 16 (24%). Interns reported a better  
180 worthwhile experience when their internship was in a professional sports club (18%)  
181 than when it was in educational establishments (8%), NGBs (6%) and private  
182 organisations (3%).

183

184

185 \*\*\*\*\* insert figure 2 near here \*\*\*\*\*

186

187

### 188 **Experience during the internship**

189

#### 190 *Intern Roles and Responsibilities*

191 The majority of respondents reported that their organisation provided them with clear  
192 roles and responsibilities (26% strongly agreed; 50% agreed) and confirmed that the  
193 roles reflected what they understood to be skills required of an S&C professional (24%  
194 strongly agreed and 48% agreed). There was an even distribution of what interns  
195 classified as their primary role (table 1). Other responses included observing  
196 sessions/shadowing, cleaning and program design. More responsibility was given to  
197 interns who were already accredited (11%) than those who had only a post-graduate  
198 qualification (9%).

199

200



201 \*\*\*\*\* insert table 1 near here \*\*\*\*\*

202

203

204 *Internship time demands*

205 The majority of internships lasted between 6 and 12 months (66%) but comprised  
206 variable weekly time demands (figure 3). Nearly all respondents indicated that their  
207 internship was unpaid (93%) and in most cases, no further expenses were provided to  
208 cover travel and other costs (73%).

209

210

211 \*\*\*\*\* insert figure 3 near here \*\*\*\*\*

212

213

214 *Skills and training*

215 A total of 47% of respondents strongly agreed that they were given clear outlines of  
216 what would be expected of them. However, an equal number agreed and disagreed  
217 (25%) that the organisation clearly established their training needs and requirements  
218 upon commencement of the internship. Also, when asked if appropriate training was  
219 provided before the internship, many respondents indicated that this requirement had  
220 not been met (35% neither agree nor disagree; 25% disagree; 15% strongly disagree).

221

222 There was evidence that coaching abilities were at the forefront (30%) of the skills  
223 developed during the internships. Monitoring, assessment and evaluation techniques  
224 were also frequently reported as skills developed during the intern experience (27%),  
225 with program design and data analysis less frequent (20% and 18% respectively). When  
226 considering the professional development activities put in place for interns during their  
227 placement, a large percentage felt that they were appropriate to their training needs  
228 (19% strongly agree; 29% agree). Conversely, a sizeable proportion disagreed (23%)  
229 and strongly disagreed (17%).

230

231 *Mentoring*

232 The majority of respondents (70%) were allocated a mentor / placement supervisor  
233 during the period of their internship, however, a large proportion were not (30%). In  
234 most cases the allocated mentor was both experienced and suitably qualified (34%)

235 strongly agree; 30% agree). There is no clear indication that the mentor was allocated  
236 enough time in their weekly schedule to fulfill their role to an adequate standard as the  
237 responses were similar across the range of options for the scale provided (figure 4). The  
238 data also revealed that 31% of respondents felt they had an improved experience when  
239 there had been a mentor or structured role put in place to support their internship.

240

241

242 \*\*\*\*\* insert figure 4 near here \*\*\*\*\*

243

244

245 It was indicated that 39% of interns were supervised in their roles between 50-80% of  
246 the time by a suitably qualified employee of the organisation (figure 5), but this was  
247 not necessarily their allocated mentor. A range of responses were given when asked  
248 how often they had formal meetings with their supervisor to discuss developmental  
249 aspects and their progress during the internship (figure 6). Of particular note, a high  
250 percentage (26%) of respondents reported these meetings never took place.  
251 Furthermore, formal meetings were rarely documented (77%) and there was  
252 inconsistency as to whether or not these meetings set developmental objectives (figure  
253 7).

254

255

256 \*\*\*\*\* insert figures 5, 6 and 7 near here \*\*\*\*\*

257

258

### 259 *Further Employment*

260 After the internship, the majority of respondents stated that their internship did not lead  
261 to paid employment in that specific organisation (72%). This trend continues with very  
262 few of the respondents gaining paid employment in S&C with a different organisation  
263 (64%) at the time of data collection. However, when asked if the internship prepared  
264 the respondents to work independently and effectively in S&C, the majority either  
265 strongly agreed (23%) or agreed (40%). Overall, it was stated that the internship was a  
266 worthwhile experience (36% strongly agree; 43% agree).

267

268

269 **Discussion**

270 This study investigated the characteristics of S&C coaches who have undertaken  
271 internships and their experiences during these placements. Respondents said that the  
272 internships were a worthwhile experience and prepared them to work independently  
273 and effectively in S&C. The majority of placements lasted 6 to 12 months, were unpaid,  
274 and took place at professional sports clubs. Nearly all respondents were male with some  
275 standard of experience prior to commencement. A high proportion had completed a  
276 degree program, and others were educated to master's standard and were qualified S&C  
277 coaches either by the UKSCA or NSCA. Clear roles and responsibilities were generally  
278 provided, and activities consisted largely of S&C lead coaching, data collection and  
279 equipment set up. Employers generally outlined the aims and objectives before the  
280 internship. However, this was often not preceded by establishing or providing  
281 appropriate training. During the placement, coaching, monitoring and evaluation  
282 techniques were the predominant skills developed and it appeared that these were  
283 derived from practical experiences as often it was felt that distinct professional  
284 development activities were insufficient. Mentors were consistently allocated to interns  
285 and their work was observed under qualified supervision. Some respondents indicated  
286 formal meetings took place during the placement, however, often it appeared  
287 developmental objectives were not discussed, meetings were rarely documented, and  
288 in some cases, no meetings ever took place.

289  
290 The findings of this study are novel as no empirical data was previously available to  
291 determine participant perceptions of how useful internships in S&C are for  
292 developmental coaches. The responses given here suggest that these experiences are  
293 worthwhile and assist in the development of appropriate skills to work as an  
294 independent practitioner. Coaching, monitoring and assessment were the predominant  
295 skills obtained during the placements and these reflect the practices of coaches  
296 investigated in both professional (Ebben, & Blackard, 2001; Ebben et al., 2004; Ebben  
297 et al., 2005; Simenz et al., 2005) and collegiate (Durell et al., 2003) sport. Program  
298 design was less frequently addressed during the internships undertaken, occurring in  
299 only 20% placements. Given that the application of programming techniques such as  
300 periodization appear commonplace in the S&C practices of professional and collegiate  
301 coaches (Ebben, & Blackard, 2001; Ebben et al., 2004; Ebben et al., 2005; Simenz et  
302 al., 2005), this could be a key drawback in the ability of an internship to prepare a coach

303 for independent practice. Therefore, it could be that these skills are developed through  
304 formal education, sharing experiences, and / or directed reading to available literature  
305 (Durell et al., 2003); however this would preclude the direct application of  
306 programming which is critical for effective practice. It may be worthwhile for  
307 employers offering internship programs to place greater emphasis on developing these  
308 skills under their supervision.

309

310 The characteristics of individuals who undertake internship programs have not  
311 previously been reported. The present study showed that interns working in the field of  
312 S&C in the United Kingdom are predominantly male and complete their placement  
313 between the ages of 21 to 25. This indicates that the primary target population for these  
314 roles is graduate students, as reflected in the high number of respondents stating their  
315 level of qualification was a bachelor's degree prior to commencement. Also, the results  
316 indicate that it is not uncommon for accredited coaches and those with some standard  
317 of previous coaching involvement to complete internships as a means to gain additional  
318 experience and attempt to further their career. Employed coaches operating at collegiate  
319 organisations have a greater percentage of accredited coaches who are qualified to  
320 degree standard than those in the present study (Durell et al., 2003), are older (Massey,  
321 Schwind, Andrews, & Maneval, 2012; Sartore-Baldwin, 2013) and have more  
322 experience (Durell et al., 2003, Massey et al., 2009; Sartore-Baldwin, 2013). This is  
323 understandable and reflects participants' status as interns who are attempting to enter  
324 the profession.

325

326 Before commencing their placements, interns were largely given clear aims and  
327 objectives, which can be considered good practice (Jeffreys & Close, 2013; Pye et al.,  
328 2013). However, in three quarters of cases it was evident that their training needs and  
329 requirements were not established. Employers offering intern programs should be  
330 encouraged to assess the characteristics, skills and knowledge of effective S&C coaches  
331 and base their program on developing these qualities (Jeffreys & Close, 2013). Clearer  
332 guidelines are required to define the responsibilities both of employers and interns when  
333 assessing the training needs of the intern and these have been outlined in table 2. Pre-  
334 participation assessments can identify strengths and weaknesses so that clearly  
335 identified and tailored internships for each individual can be developed. Employers  
336 could then also establish their own suitability to provide an effective internship for the

337 applicant (Jeffreys & Close, 2013). Furthermore, continual professional development  
338 opportunities should also be provided during the program, however, the results of this  
339 study showed that only half of the participants agreed these activities took place. This  
340 suggests a clear structure for internships does not always occur and this requires  
341 attention by employers who wish to offer placements in the future and can be guided  
342 by table 2.

343

344 Participant responses indicated that in most cases mentors were allocated to supervise  
345 student coaches and this has been suggested as a key component of an effective  
346 internship (Jeffreys & Close, 2013; Magnusen & Petersen, 2012; Murray et al., 2014).  
347 However, a large proportion of the placements undertaken were not supervised.  
348 Mentoring has been described as a process of passing on the requisite knowledge and  
349 skills from a person more experienced and / or with greater expertise to their mentees  
350 (Allemen, Chohran, Doverspike, & Newman, 1984; Noe, Greenberger, & Wang, 2002).  
351 This process has benefits for mentees and the employer/mentor (Magnusen & Petersen,  
352 2012) and is essential for a quality experience (Murray et al., 2014). Interns will likely  
353 not possess the required competency to fulfill a professional role and should not work  
354 independently (Jeffreys & Close, 2013). Thus, clearer guidelines and regulations need  
355 to be established for employers that must be adhered to (table 2). Available literature  
356 has suggested mentor guidelines for employers (Jeffreys & Close, 2013), and other  
357 authors have outlined example frameworks which can be adapted (Magnusen &  
358 Petersen, 2012, Murray et al., 2014). In addition, allocating sufficient time for mentors  
359 to meet with their mentees is a fundamental requirement. The results of this study did  
360 not provide a clear indication if this is adopted in current practice.

361

362 Formal meetings with mentors were not documented and in some cases regular  
363 meetings did not take place. Also, it was apparent that not all these meetings involved  
364 setting developmental objectives. Employers offering internship programs should be  
365 expected to provide on-going feedback and this should also include performance  
366 reviews during which developmental objectives can be discussed (Jeffreys & Close,  
367 2013). This process must be documented outlining the training interns have completed  
368 and their performance against specified roles, responsibilities and target objectives  
369 (Jeffreys & Close, 2013). This document can then form part of the intern's portfolio

370 that enhances future applications for paid coaching roles, thus increasing their  
371 employability.

372

373 Employers offering internships are also required to consider employment rights,  
374 including payment (Pye et al., 2013). In the present study, nearly all internships  
375 undertaken were unpaid and expenses were not provided to cover travel costs.  
376 Furthermore, the most frequently reported weekly work commitment was 20 to 40  
377 hours i.e. interns were often operating as full-time employees. In the United Kingdom,  
378 no laws govern internships. However, classification of individuals who complete such  
379 programs as volunteers, workers or employees is required (Pye et al., 2013). Volunteers  
380 do not require payment and are under no obligation to perform work, whereas, workers  
381 and employees are required to perform work or services under specified conditions (Pye  
382 et al., 2013). It has been suggested that for most quality internships in S&C there is an  
383 obligation to perform work and a formal arrangement is in place, indicating that  
384 participants should be classified as either workers or employees entitled to the national  
385 minimum wage (Pye et al., 2013). Although this does not apply to students who are  
386 currently undertaking a work placement as part of a higher education course, a large  
387 proportion of respondents had already completed an undergraduate degree before  
388 commencing their internship, with much fewer stating they were studying for a  
389 Master's degree. Furthermore, over a quarter of the interns were accredited with  
390 national governing bodies and should therefore be paid for formalised coaching work.

391

392 Another important finding was that the organisations had few employed coaches and a  
393 high number of interns (figures 4 and 5). This will have clear implications for the ability  
394 of the organisation to appropriately mentor interns. Additionally, it raises a worrying  
395 trend, whereby, potential employed roles are being filled by interns rather than an  
396 organisation occupying that role with an employed staff member. Critically, internships  
397 should not be considered as in-expensive labor (Pye et al., 2013) or used to service  
398 vacant coaching positions in professional organisations. This increases the risk of  
399 exploiting willing individuals who wish to gain experience and devalues the profession  
400 into a voluntary service (Jeffreys & Close, 2013). Therefore, a greater understanding of  
401 the legalities associated with internships including appropriate selection and  
402 classification of individuals, payment regulations and work obligations is required by  
403 many organisations offering such placements.

404

405 **Conclusions**

406 This is the first study to investigate the characteristics of S&C coaches who have  
407 undertaken internships and their experiences during these appointments. The results  
408 suggest that internships currently have both positive and negative features.  
409 Respondents were generally postgraduates with some standard of previous coaching  
410 experience and reported that these placements offered worthwhile experiences,  
411 assisting in the development of coaching, evaluation and monitoring skills highlighting  
412 their relevance and importance for helping young coaches progress their career in S&C.

413

414 However, not all experiences were positive. In spite of the apparent usefulness of such  
415 placements, a clearer structure is needed for internship programs' training and  
416 mentoring activities to ensure high quality experiences. Also, although a high  
417 proportion of internships were full time positions with formal obligations, nearly all  
418 were unpaid and coaching positions in the organisations offering these placements were  
419 largely occupied by interns. Therefore, based on the findings of this study, clearer  
420 guidelines are required to define the responsibilities both of employers and interns and  
421 these have been outlined in table 2.

422

423

424 \*\*\*\*\* insert table 2 near here \*\*\*\*\*

425

426

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