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**The post 16 Gap: How do young people conceptualise PE?
An exploration of the barriers to participation in Physical
Education, physical activity and sport in senior school
pupils.**

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The post 16 Gap: How do young people conceptualise PE? An exploration of the barriers to participation in Physical Education, physical activity and sport in senior school pupils.

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Abstract

Previous studies have identified several key barriers to Physical Education, Physical activity and Sport (PEPAS). However, there is a paucity of qualitative evidence investigating why young people do and do not participate in PA and the relationship between their levels of participation at different stages of life. This study builds on a previous study and aims to investigate the barriers to PEPAS in adolescents at transition stage. The extant literature highlights that instilling regular PA throughout life strongly relies on developing physical literacy through participation in high quality physical education. Despite the understanding of the importance of high quality physical education, there is an over emphasis on the short term outcomes of physical education (PE) sessions which have been noted to overemphasise immediate physical activity rather than focus on educational outcomes important to physical literacy. Anecdotally, the recent Covid 19 Global pandemic and subsequent lockdown has resulted in a digitalisation of PE in schools and a subsequent reliance of PA programmes based on adult fitness classes, which may not necessarily be categorised as PE in its true sense..

Methods: Twenty-four respondents aged 16-19 were divided into five focus groups. Data were analysed verbatim using NVivo following the guidelines by Braun and Clark (2006) on thematic analysis.

Findings: The findings indicated that most respondents equated PE with team sports. Findings suggest that Physical Educators need to acknowledge how past and present experience of PE impacts young people's future motivation to continue PA beyond school

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3 29 Delivery of traditional PE lessons, prioritising sporting ability, can act as a participation
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5 30 barrier to pupils who consider themselves “non-sporty”. Accordingly, a shift towards
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7 31 inclusive pedagogical models with an emphasis on a holistic approach, may best promote the
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9 32 physical literacy necessary for the competence and confidence to continue movement in a
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11 33 lifelong capacity.

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For Preview Only

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39 Introduction

40 Despite the development of a recent action plan by the World Health Organisation
41 (WHO), physical inactivity remains one of the most important factors contributing to global
42 morbidity and mortality, with inactivity estimated to result in as many as 5 million deaths
43 globally per annum[1]. The evidence base for physical activity (PA) in the prevention of non-
44 communicable disease is strong and well documented [2,3]. Recent findings from the Active
45 Healthy Kids Global Alliance[4] compared 49 countries from six continents assessing global
46 trends in physical activity. This report concluded that physical inactivity had reached a
47 Global crisis level, with only one Country, Slovenia, having 80% of all 5-19 year olds
48 meeting the Global Recommendations on Physical Activity for Health, which proposes that
49 children and youth accumulate at least a 60 minutes' average of moderate - to vigorous -
50 intensity of PA per day. At the other end of the scale, the recent *Active Healthy Kids* report
51 card showed that Scottish children are among the least active in the world. Further national
52 level analysis ranked Scotland in the poorest category for overall physical activity levels:
53 amongst 11-15 year olds, only 21% of boys and 15% of girls met the international
54 recommendation of a minimum 60 minutes of daily PA of at least moderate intensity[4].

55 The extant literature highlights that instilling regular PA throughout life strongly
56 relies on developing physical literacy through participation in high quality physical education
57 [5]. Despite the understanding of the importance of high-quality physical education, there is
58 an over emphasis on the short-term outcomes of physical education (PE) sessions which have
59 been noted to overemphasise immediate physical activity rather than focus on educational
60 outcomes important to physical literacy [6]. Additionally, the OECD highlighted the
61 importance of a physical education curriculum that emphasises the need of a holistic
62 curriculum focussing on physical, social, and psychological competencies. Indeed,

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3 63 differentiating between short term physical activity outcomes and the more holistic aspects of
4
5 64 high quality physical education is essential to ‘spark change’ [6]. Additionally, the recent
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8 65 Covid 19 Global pandemic and subsequent lockdown has resulted in a digitalisation of PE in
9
10 66 schools and a subsequent reliance of PA programmes based on adult fitness classes, which
11
12 67 may not necessarily be categorised as PE in its true sense [7].

15 68 Additionally, over the past twenty years a growing body of evidence has highlighted
16
17 69 the need for a curriculum shift away from the traditional PE lesson, which tends to prioritise
18
19 70 pupils of a high sporting capability, towards a more inclusive, student centred approach [8-
20
21 71 11]. The dominance of a multi games based, skill centred curriculum may tend to prioritise
22
23 72 those of white, masculine backgrounds with a high level of motor competence [9,10]. Despite
24
25 73 this acknowledgement, it may appear that the understanding of inclusive practice in PE may
26
27 74 still be somewhat narrow [9]. Indeed, the revelation that the traditional, multi activity PE
28
29 75 curriculum lacks inclusion, equity and depth of learning has been the focus of a growing body
30
31 76 of evidence proposing that a more widespread implementation of pedagogical models may
32
33 77 have much more to offer young people. As reiterated by Casey and Kirk,(2021)the
34
35 78 development of an innovative models-based practice (MBP) approach to PE holds the
36
37 79 potential for multiple —psychomotor, social, affective, and cognitive— health benefits, and
38
39 80 has been suggested to increase participation by increasing intrinsic motivation amongst
40
41 81 pupils[8,11]. MBP is considered an umbrella term and involves the delivery of the curriculum
42
43 82 through a number of models rather than structuring the curriculum around the sport or
44
45 83 activity [11].

51
52
53 84 Traditionally the PE curriculum in the UK usually follows a set structure, beginning
54
55 85 with a block of fitness testing and subsequently leading to fitness development lessons,
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57 86 followed by a block of games and aesthetic activities with an emphasis on teacher-directed
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59 87 activities. A similar format follows in a lesson-based context where traditionally games

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3 88 lessons are composed of a warmup, skills based drills followed by a competitive game [12].
4
5 89 The use of fitness testing in modern PE has previously been severely questioned with doubts
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7
8 90 raised over the reliability, validity and educational purpose of this (usually compulsory) topic
9
10 91 [13]. Furthermore, Cale and Harris [13] highlighted that the overuse of fitness testing in PE
11
12 92 may not only fail to promote healthy lifestyles and PA but could deter young people from
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15 93 future participation, where resultant, past negative experiences deter individuals from current
16
17 94 and future participation [14].
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20 95 Our previous work focussed on a younger cohort of Secondary aged children and
21
22 96 reported that delivery of traditional PE lessons, prioritising sporting ability, can act as a
23
24 97 participation barrier to pupils who consider themselves “non-sporty” [8-14]. Considering
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26
27 98 this, it was deemed necessary that we investigate an older cohort at the transition stage of
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29 99 education-namely those who were around the age of transition between compulsory
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31 100 schooling and further education/work.
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34 101 Greater attention might also be given to the role that theory plays in framing some of
35
36 102 the key issues that have been identified in the literature considered above. Here, two inter-
37
38 103 linked factors are analysed in particular: firstly, moves beyond a limited temporal horizon
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40 104 within current PE that is largely present-focussed, and secondly, a concern with
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42
43 105 understanding young peoples’ motivation and the ways in which past and present experience
44
45 106 impacts their future lifestyle choices, with particular reference to PA. These twin concerns
46
47 107 with regard to temporal horizon and motivation can be linked through a consideration of the
48
49 108 concept of agency; for as Emirbayer and Mische (1998) [15] observe, if the complexities of
50
51 109 behaviour change are to be addressed, it is necessary to acknowledge how past and present
52
53 110 experience impact future intentions,. Some such consideration is necessary if one of the
54
55 111 emergent aims of PE is have a positive impact on young peoples’ lifestyle choices regarding
56
57
58 112 their continuing engagement in PA. This also has far-reaching implications for the ways in
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3 113 which practitioners make changes to the curriculum to have an impact on the lifelong
4
5 114 learning and physical activity of young people [10].
6
7

8 115 The research study reported upon here sought out the views of young people in the
9
10 116 16–18-year age group, to identify barriers and facilitators at this crucial stage of transition.
11
12
13 117 One of the insights that emerged from a focus on considering young peoples' views in
14
15 118 conjunction with theory is that the effects of previous PE experiences need to be more
16
17 119 thoroughly understood and acknowledged within a broader pedagogical perspective, so as to
18
19 120 inform future interventions and curriculum design. The present study focuses on
20
21 121 individuals, 16-18 years, who are no longer within the age of compulsory education, a positive
22
23 122 PE experience in a school environment is one of the most influential factors in determining
24
25 123 the sustainability of activities. In the country where the study is set, it is a legal requirement
26
27 124 for PE to be taught as a compulsory subject until S4 (approx. age of 16 years), where schools
28
29 125 must provide at least 2 period per week. However, during the senior curriculum phase, the
30
31 126 decision on PE delivery is based at a school level [16]. Whilst short termism for health
32
33 127 benefits may be important, a positive PE experience can help build on the autonomy,
34
35 128 relatedness and to enable PE to achieve its raison d'être of lifelong PA [8,14]. For this reason,
36
37 129 it is viewed important to seek out the views of those who are in the 16 -18 years age group to
38
39 130 identify barriers and facilitators at the transition stage. To understand adolescent motivation
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41 131 the effect of previous PE experiences need to be understood, particularly from a qualitative
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43 132 perspective to inform future interventions and curriculum design.
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134 **Rationale and research questions**

135 Historically, research in physical education, physical activity and schools sport
136 (PEPAS) participation has tended to adopt quantitative methods which, whilst successful in
137 evaluating strengths of trends in participation, do little to offer an in-depth insight into
138 individuals' attitudes and perceptions as to what motivates them to participate in physical
139 activity. Most of the studies are carried out 'on' children/adolescents, instead of work
140 exploring qualitatively young people's views as to both the barriers and drivers in relation to
141 their continued participation in PEPAS. Through listening to the voices of young people new
142 insight may be gleaned that can enable PE practitioners to design future curricula more
143 attuned to longer term health needs [14,17-19]. This study is a contribution towards that
144 broader aim through its aims to explore:

- 147 1. How do senior pupils conceptualise PEPAS?
- 148 2. What effect does school-based PE have on young people as they leave or
149 prepare to leave school?

151 These two questions are specifically pertinent to sustaining PA into adulthood in the
152 transition from childhood to early adulthood.

154 **Methods**

155 *Study design*

156 A cross sectional, qualitative approach was used to explore previous experience of PE and
157 to investigate young people's perception of PE, PA Sport and health. Focus groups were
158 chosen as the method of data collection, as such an approach is reported to provide the richest
159 data in relation to public views of priorities in similar types of research [20]. Furthermore, the
160 use of focus group-based discussions may generate comments that are more critical than
161 those observed in individual one-to-one interviews [20-22].

162 *Participants*

163 Twenty-four participants aged 16-18 years (mean age 17.36 ± 0.23) were recruited from
164 five community and education settings across urban and rural areas in and around the West of
165 Scotland. All participants were of British ethnicity, 60% were female.

1
2
3 166 ***Focus group topic guide***
4

5 167 A semi-structured topic guide was developed to identify both barriers and facilitators to
6
7 168 PEPAS. The focus group topic guide was piloted on three 16-year-old senior school pupils,
8
9 169 not involved in the study, and some minor amendments were made to the ordering of the
10
11 170 questions. Whilst research has been carried out in the *PA for Adolescents in Scotland Survey*
12
13 171 in 2008 and the *Active Healthy Kids Report Card* in 2016 [4], these did not qualitatively
14
15 172 determine barriers and facilitators for those in the transition phase between leaving school
16
17 173 and attending further education institutes and / or apprenticeships.

17 174 ***Procedures***

18
19 175 The study was approved by the relevant *University Ethics Committee* according to the
20
21 176 *Declaration of Helsinki*. Focus groups were conducted in a tertiary education centre; the data
22
23 177 collection took place during the month of June with the average recording lasting 48 minutes.

24
25 178 ***Data analysis***

26
27 179 The research questions were addressed via an inductive thematic analysis, using a bottom
28
29 180 up approach as proposed by Braun and Clarke, 2006[21] . A thematic framework was applied
30
31 181 to all the data. Inductive, thematic analysis does not primarily rely on existing, pre-
32
33 182 determined, theoretical perspectives, but instead gives a formative and guiding role to the
34
35 183 data itself, thereby providing a degree of theoretical flexibility. Transcripts were read and
36
37 184 reread for data familiarisation and to derive raw data themes; data was organised and
38
39 185 imported into NVivo.QSR London.

40 186 **Results**

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42 187
43 188 Analysis of data from the focus groups identified three main themes:
44

- 45 189
- 46 190 1. Misconceptions surrounding the prioritisation of short term PA levels
 - 47 191 2. Previous negative experience of PE at school was seen a barrier to future
48 192 participation. Sub-themes included:
 - 49 193 a. The importance of perceived competence
 - 50 194 b. the content of the curriculum and pupil choice of activities.
 - 51 195
 - 52 196 3. The importance of self-image.
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3 198 There is a growing evidence base, highlighting the rise of non-participation in
4
5 199 traditional school physical education. Much of the research has an over dominant
6
7 200 focus on the short-term priority of increasing physical activity levels. [14].
8
9 201

202 **Theme 1 Misconceptions around the prioritisation of short term PA levels**

203 Most members of the focus groups had a clear understanding of the definition of PA
204 and its comparison with exercise, despite this, during each of the focus groups there was a
205 tendency for most participants to associate PE with competitive sports. Additionally,
206 although many were aware of the benefits and public health message encouraging PA,
207 confusion existed as to what constituted PA and the difference between this and PE. Some
208 members of each focus group did not understand the difference as clearly as others.
209 Barriers and facilitators cited by respondents were similar to those described in previous
210 studies involving school children participating in formal PE. However, participants tended to
211 have the belief that short term PA was the main goal of their PE lesson, and they felt that if
212 they were hot and sweaty and out of breath, then the teacher had done their job
213

214 *Our teacher gave us football and badminton, the warm up meant we were doing*
215 *plenty of laps of the park or hall and we worked quite hard.*

216 *(Male, John, aged 17)*

217
218 The idea of short term fitness activities and a prioritisation of short term PA being one of the
219 major ‘outcomes’ of PE is highlighted by the following respondents:
220

221 *Both boys and girls always got fitness testing and fitness at the start of the year and*
222 *we completed a wee tracking booklet.*

223
224 Similarly, when speaking about barriers to participation, pupils did not think that the overly
225 competitive atmosphere that fitness testing caused was inviting to participation.
226

227 *Ah absolutely hated the first term, having to all line up and do the beep test. The*
228 *teachers used to push you. All the fitter ones seen it as a competitive hing.*

229
230 *Oh I hated it in PE when we had to all line up and do the multi stage test and press*
231 *ups and that...*

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6 234 **Theme 2 Previous negative experiences of PE –perceived image and curriculum content**

7
8 235 This study highlights several barriers of participation; importantly, previous negative
9
10 236 experiences of PE were perceived as major barriers to future PA participation. Furthermore,
11
12 237 the idea that previous educational experience may contribute to a post 16 gap in PA levels is
13
14 238 somewhat novel. Many respondents cited this as one of the main reasons as to why they
15
16 239 dislike the idea of exercise participation even after leaving school. Within the data, there was
17
18 240 support for the previous findings related to single sex PE classes and the role of gender.
19
20 241 This is one aspect which is dominant in the existing literature [14,15,16]. By way of example
21
22 242 respondents expressed concern relating to their teachers' gender:

23 243 *It should be a wummin teacher for the lassies and a man teacher for the guys. It's*
24 244 *sometimes a bit creepy if they (PE teacher) are old men.*
25 245 *(Female, Janey, aged 17)*

26
27 246

28
29 247 Whilst some respondents felt that the teachers did not set a good example and that their
30
31 248 teaching methods were poor:

32 249 *Some of the PE teachers were too old and had fat bellies. Some of them just stand*
33
34 250 *about and do nothing, but just expected you to do it. They didn't really expect you to*
35
36 251 *do it at your own ability, just to do what they had asked.*
37
38 252 *(Male, Simon, aged 18)*

39
40 253

41 254 This was echoed by another participant from a different focus group:

42
43 255 *It was as if they (the teachers) canny dae it themselves and show you it (poorly) once*
44
45 256 *and expect you to dae it...you get asked to dae sumfin and other people start laughing*
46
47 257 *'cos you are asked to demonstrate and cannae dae it.*
48
49 258 *(Female, Mandy, aged 18).*

50
51 259

52 260 Perceived competence was highlighted as a major driver of future PA participation.

53 261 Respondents perceived that PE teachers focused primarily on physically capable students.

54
55 262 Several participants felt that the teachers bullied them and made them self-conscious, leading
56
57 263 to a negative perception of themselves and ultimately demotivating them:

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59 264
60

1
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3 265 *Sometimes the teachers push you too hard and shout at ye in front of everyone and*
4
5 266 *you get embarrassed that makes you not want to take part. Then you get made fun of if*
6
7 267 *ye are not good at games like football.*
8
9 268 *(Male, Simon, aged 18).*

10 269
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12 270

13 271 *The role of 'image'¹ and its importance as a barrier and/or facilitator in exercise, PE and*
14
15 272 *PA.*

16
17 273

18 274 The role of perceived competence fuelled by self-image and the perception of what
19
20 275 other people may think about them is of prime importance in this data. Perception of
21
22 276 competency, self-perception and body image appeared to be a main factor in determining
23
24 277 previous participation in school PE.

278 These factors were a major determinant for future participation in PA and exercise.
 279 One of the main reasons for either wanting to participate in PA or not to, was the issue of
 280 body weight, how fat ‘you feel’ or how important it is seen to lose weight.

281 *Now I'd exercise to lose weight, for a good image...so I look good for others. (Female,*
 282 *Lisa, aged 18)*

283 *I've got really chubby. Lose weight for how I look. I want to look better”*

284 *(Male, Simon aged 18).*

285 *Ah hated (PE) as I was overweight. I had a huge bust and didn't want to do it”*

286 *(Female, Fiona, aged 17)*

287

288 As adolescents approach the age of 16 and the cessation of compulsory PE and they
 289 face college/vocational workplace transition, the idea of self-image, confidence and
 290 competence features as a dominant theme as a barrier to uptake/sustainability.

291 *When I got to 16 I found my confidence was lower, I felt tired all the time*

292 *(Male, Allan, aged 17).*

293

294 *Image could stop you taking part... What puts me off if I've not ate anything and if*
 295 *I've felt heavier I become self-conscious. I don't then want to do anything. (Female,*
 296 *Jane, aged 19).*

297

298 **Theme 3: Self-image as a barrier**

299

300 The limited qualitative evidence that does exist from the current literature has touched
 301 on the role of self-image as a barrier to PA and school based PE. The following participant
 302 provided the first indication in this study that self-image may be a key theme in determining
 303 participation:

304 *If you started fancying boys you'd get embarrassed. I hated if the boys and girls were*
 305 *in the same class and I felt uncomfortable. A felt uncomfortable wearing shorts but*
 306 *bitchiness ae lassies too. It still happens, girls judge you on how you look and look*
 307 *you up and down. (Female, Mandy, aged 18).*

308

309

310 The importance of image, how the young people are perceived by others and being in a
 311 relationship features in the following response:

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3 312

4
5 313 *Weekends...Depends if you are single. When you are single, you like try and lose*
6
7 314 *weight or keep in shape, but once you get a boyfriend it changes. I mean Darren goes*
8
9 315 *to the gym before he comes up every night. I just lie about on my bed waiting on him*
10
11 316 *coming up. Cos, you have a boyfriend you dinnae care. Unless it's coming up to the*
12
13 317 *holidays or that. I then eat hunners of takeaways and junk food n stuff. (Female,*
14
15 318 *Lauren, aged 16).*

16 319

17 320 The idea of being competent at sports and having confidence in yourself, together
18
19 321 with judgmental peers appears to be one of the main factors in determining past and future
20
21 322 PA and exercise. This is highlighted by the following participants:

22 323

23
24 324 *Self-confidence is one of my main reasons for not doing much. But in primary*
25
26 325 *(school)they didn't care but towards end o high school and in college they are all*
27
28 326 *watch h you and think look at her trainers and pure judging you.*

29 327 *(Male, Alexander, aged 18).*

30 328 *(I'd exercise) For yourself... no for others. So that other people admire ye (Female,*
31
32 329 *Isla, aged 17).*

33 330

34
35
36 331 The circumstances of the transition period between leaving compulsory schooling to
37
38 332 gain further qualifications, possible work and the development of different relationships and
39
40 333 social circumstances also featured heavily in determining PA participation. This is
41
42 334 particularly important as it forms the main part of the data required to investigate the main
43
44 335 research questions in this study.

45 336 *As you begin to leave school your social life takes over. Just going out...it comes to*
46
47 337 *weekends you dinny want to be going to college and gym you'd rather go n see friends*
48
49 338 *and relax and stuff. Not having enough time now is the main thing.*

50 339 *(Female, Megan, aged 16).*

51 340

52
53 341 Surprisingly, environmental factors such as availability of facilities and cost of leisure
54
55 342 facilities did not seem to act as a major barrier to PA. This could be due to the fact that many
56
57 343 of the respondents lived in a suburban area However, those respondents who lived in smaller
58
59 344 outlying villages felt that facility availability was a barrier, as highlighted by the following
60
345 respondent:

1
2
3 346 *I mean, my village, has nothing, there is no gym or sports centre and to be honest I*
4
5 347 *wouldn't really want to go out walking (Female, Andrea, aged 17).*

6 348
7
8 349 *They dinny realise they are bullying you, they just think they are pushing you but it's*
9
10 350 *their teaching methods, they think they are motivating you, but they aren't. it just puts*
11
12 351 *me off exercise now. (Female, Lauren, aged 16)*

13 352
14
15 353

16 354 Curriculum content was also seen as a major barrier to participation, both for PE
17
18 355 participation at school, and in future life stages. Many participants felt that their previous PE
19
20 356 experiences left them with an attitude that reveals that exercise and PA are negative
21
22 357 experiences. The following statement highlights the lack of pupil choice and prescriptive
23
24 358 aspects of the curriculum:

25 359 *We didn'y get choices they telt ye what you were doing (Male, Andy, aged 18).*

26 360 *Aye we were the same we had to do table tennis cos all the boys wanted it. A mean*
27
28 361 *our teacher taught dance but couldn't do it (Female, Andrea, aged 17).*

29 362
30
31 363

32 364 Others felt that they had experienced bullying from their PE teacher and that this had
33
34 365 put them off exercise:

35 366
36
37 367

38 368 *Good choices in PE are needed... getting good demonstration would made it better,*
39
40 369 *stuff like Dancefest and more choices. Glen Academy has a different type of PE from*
41
42 370 *(what we had) it's the better school in a better area.*

43 371 *(Female, Megan, aged 18)*

44 372 *Choices were limited. It went by the seasons. There was really poor choices. ...They*
45
46 373 *wouldn't let us do trampolining 'til we were in 5th an 6th year.*

47 374 *(Female, Jane, aged 19)*

48 375
49
50 376

51 377 In contrast, one respondent highlighted that in their school, the pupils got a
52
53 378 democratic choice before some lessons as to what was delivered:

54 379
55
56 380

57 381 *We got a choice. We'd all go intae the big hall and get voting on different things like*
58
59 382 *aerobics, volleyball and gymnastics.*

60 383 *(Female, Lauren, aged 16).*

380

381 Additionally, the notion of competitive sports held bad memories for some
382 participants. This was evident in both males and females who reiterated the notion that only
383 those competitive sports, taught in a traditional method puts off the majority of older
384 adolescents. Many respondents identified PA with team sports, and consequently these
385 adolescent school leavers identified PA primarily with competitive sport:

386

387 *Sometimes girls can be more judgemental than boys sometimes...but boys can be*
388 *quite competitive. That put me off...I was quite glad when it was an all-girls class. I*
389 *really don't like competitive stuff*
390 *(Female, Simone, aged 18).*

391

392

393 Furthermore, the topic of PE at school raised some common barriers, not only related
394 to the teaching of fitness testing as previously discussed, but to the whole environment
395 relating to changing rooms and the facilities available:

396

397 *The teachers push you too much, like timing you in fitness testing, and while the*
398 *trampolining was good being timetabled last period was bad. You didn't get much*
399 *time, then there was the mingin'3 changing rooms. (Female, Janey, aged 17)*
400 *We didn't even have hair straighteners. (Female, Simone, aged, 18).*

401

402 Discussion

403 The data presented within this study strengthens the previous research in this area. In
404 our previous paper we highlighted that younger pupils felt that the traditional PE lessons with
405 fitness testing and an over emphasis on competition-based lessons, presented a barrier to their
406 participation or enjoyment and, potentially, exposed pupils to an increased risk of bullying.
407 The use of fitness testing in modern PE has previously been severely questioned with doubts
408 raised over the reliability, validity and educational purpose of this (usually compulsory) topic
409 [13,14]. Furthermore, Cale and Harris (2009)[13], highlighted that the overuse of fitness
410 testing in PE may not only fail to promote healthy lifestyles and PA but could deter young
411 people from participation.

1
2
3 412 The focus on short term fitness goals and an increase in PA that is measurable over a
4 413 short period of time is seen by many as the dominant outcome of physical education. This
5 414 misunderstanding of what constitutes PE may not have its roots in physical educators
6 415 ideology, but the use of poor content in lessons, which focus on short term measurement
7 416 gives priority to such outcomes. Whilst there remains the argument that PE is not solely about
8 417 improving short term health goals for the nation [18]. Great debate remains around the fact
9 418 that PA in the long term may play a major part in helping to solve these health problems [18].
10 419 Ultimately, we must look beyond the short-term accumulation of PA during PE lessons and
11 420 aim to instil movement confidence from an early age [17,19]. Indeed, the implementation of
12 421 PE into the health and wellbeing area of the curriculum in Scotland is one such move aimed
13 422 at promoting holistic health through lifelong PA. The drive towards a holistic approach has
14 423 emphasised that PE should have two main goals: (1) To prepare for a lifetime of PA through
15 424 movement education and (2) to engage pupils in moderate to vigorous PA [21](Kohl and
16 425 Cook, 2013, pp 197-201).
17 426

18 427 Whilst ensuring PA during PE lessons is maximised can be seen as a positive
19 428 ambition, this should not be at the sacrifice of learning during PE lessons. Particularly when
20 429 at the expense of maximising the movement education necessary to establish a “solid
21 430 foundation for further and future PA opportunities” [17]. The move towards a more holistic,
22 431 inclusive approach requires a transformation of PE to an increased emphasis on learner
23 432 centred lessons. The overreliance on short term outcomes can be borne out in the theoretical
24 433 aspects as explained by Embirayer and Misch,[15] where temporal horizon and motivation
25 434 can be linked through a consideration of the concept of agency; if the complexities of
26 435 behaviour change are to be addressed, it is necessary to acknowledge how past and present
27 436 experience impact future intentions. However, the consideration of short term (present)
28 437 outcomes and an overreliance on immediately measurable changes may compromise the
29 438 concept of lifelong physical activity.
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31 440 Although it could be argued that the use of appropriate, pupil centred approaches and
32 441 the move away from a skills and drills, multi block approach can increase enjoyment and
33 442 motivation in both primary and secondary aged children [21-25]. The data in this paper
34 443 concurs with the previous literature which emphasised that there may be an overreliance on
35 444 performance related sports taught using “repetitive, uninspiring lessons, and disconnected
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3 445 skills”, whilst many lessons emphasised questionable practice such as fitness testing which
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5 446 the participants have highlighted.

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7 447 Interestingly, the data presented here qualitatively highlights that previous negative
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9 448 PE experience was reported to affect future participation in PA in those individuals in the
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11 449 post 16 years old age group. This is a novel finding, and has important implications when
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13 450 considering the role that PE is reported to have in ensuring lifelong PA. Despite this, there
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15 451 remains a lack of evidence pointing us in the direction of remediating those in the 16-18-
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17 452 year-old age group who may be lacking in physical literacy, and therefore, who hold a low
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19 453 level of perceived competence. The issue remains open to debate as clearly PE needs to
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21 454 reinvent itself to adjust to the 21st century. Whether this reinvention is dependent on a change
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23 455 of teaching methods, the addition of more recreational activities in the curriculum content or
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25 456 a combination of these is an area receiving limited attention. What is evident, nevertheless, is
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27 457 that despite a growing body of evidence towards the need for curriculum change and a need
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29 458 for a change in teaching practice, is that some PE teachers are “impervious to change” [5,26].
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31 459 Kirk (2013) states that although many teachers are aware of the need to ‘renovate’ the
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33 460 curriculum, this would require a great deal of work on the teachers and schools’ behalf.
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35 461 Additionally, resistance to change seems to exist as a legacy from outdated teacher education
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37 462 practices, which also requires reform. In short, some PE teachers have become acculturated [5].

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39 463 These findings, moreover, also chime with theoretical accounts that draw attention to
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41 464 the significance of memory of previous experience influencing subsequent choice[27,28]. The
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43 465 agency principle orientates individuals to the past, the present and the future, where past
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45 466 experiences can govern the present situation and have an effect on future possibilities. In this
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47 467 respect, current situations of non-participation in PA have been attributed to negative past
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49 468 experiences [22-28] (Biesta et al., 2015; Emirbayer and Mische 1998). This negative
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51 469 experience has been seen by Prusak et al, (2011) as deriving from PE teachers’ ‘resistance to
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53 470 change’, where there is an over emphasis on ‘sports skills and motor competency through
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55 471 team games [15,26]. Current research in the area of alternative teaching approaches, has
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57 472 reflected a change in pupil autonomy, decision making and enhanced enjoyment as a result of
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59 473 a change in teacher behaviour where the emphasis is on self-regulated skills for the learner
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474 [21]. Additionally, in proposing a health club approach, Prusak et al[26] emphasised that if
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476 teachers were prepared adequately through physical education teacher education (PETE) to
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478 become involved in health and lifestyle management programmes, then PE could incorporate
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480 a much more individualised, inclusive approach that can address multiple domains of

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3 478 learning whilst a greater deal of autonomy and self-regulation could be afforded. The
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5 479 perception of low competency in PEPAS has been previously identified in the limited,
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7 480 existing qualitative literature and relies upon the teacher building a high level of autonomy
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9 481 and relatedness to ensure perceived competence [29,30-38].

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11 483 **Methodological limitations and strengths**

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14 485 There are several limitations but also strengths to this study. Firstly, generalisability
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16 486 from focus groups may be limited. Accordingly, the findings of this study may not
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18 487 necessarily extrapolate to a whole population. Nevertheless, although generalisation in focus
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20 488 groups should be treated with caution, tentative inferences maybe appropriate where
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22 489 participants share commonalities to comparison populations, such as those from similar
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24 490 backgrounds and socio-economic strata Consequently, suggesting that these study findings
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26 491 are likely to be broadly generalisable across similar adolescent populations within Scotland.
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28 492 Additionally, focus groups and the nature of group interactions may compel participants to
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30 493 concur with opinions they do not necessarily hold. Furthermore, bias due to the presence of
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32 494 socially dominant participants, or an overly dominant moderator, may also compromise
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34 495 validity.

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35 497 Finally, the sampling strategies employed in the present study may be vulnerable to
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37 498 bias. Indeed, as the participants were all volunteers, there may be an inherent self-selection
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39 499 bias, whilst the nature of a focus group design involves a relatively small number of
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41 500 participants. Despite these limitations this study had several strengths. The use of focus
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43 501 groups enables the capture of richly detailed data, while allowing adolescents to articulate
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45 502 their beliefs, concerns and aspirations on health issues [29]. The use of a core set of questions
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47 503 within a moderately structured focus group helps eliminate moderator bias, and minimised
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49 504 monopolisation of the discussion' by individual participants [29]. Additionally, the use of a
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51 505 purposive sampling methodology ensured the sample was representative of the requirements
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53 506 of the study: thereby permitting comparisons between opinions of various schools and
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55 507 surrounding areas.

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56 509 **Conclusion**

58 510 As regards a critical analysis of the PE curriculum, it is noteworthy that previous
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60 511 work by Kirk (2013) concludes that PE tends to focus on the 'here and now' of PA. This is at

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3 512 the expense of a concern with acknowledging the influence of young peoples' past
4 513 experiences, and the importance of encouraging a projective orientation, that focuses upon
5 514 future aims and intentions, such as maintaining PA beyond the horizon of school. In this, PE
6 515 teachers, in common with colleagues in other subject areas, tend to focus on short term
7 516 outcomes, with less emphasis on the longer-term significance and impact [8]. Thus,
8 517 traditional PE, through its focus on sports, puts a greater emphasis upon immediate, present
9 518 goals rather than taking a broader understanding of both agency and purpose. The data from
10 519 the study reported here, highlights the importance of past and present experience of PE and
11 520 how this may have a significant impact on future PA participation.
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21 522 The current study presents novel findings in that it highlights young people's critique
22 523 of existing orderings coupled with their call for change, both in the existing content of the
23 524 curriculum and the way that some teachers deliver this. Previous authors have reported that
24 525 leisure-based choices in PE are essential to promoting lifelong PA [26]. While curriculum
25 526 content may be an issue, many of the respondents focussed on the teaching methods used by
26 527 their PE teachers. The issue of traditional teaching methods in PE and their role in promoting
27 528 an ethos of lifelong health has recently resulted in an emerging body of evidence in the
28 529 literature, that argues for a move away from didactic, teacher-led approaches towards more
29 530 consultative approaches[25,36-38].
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38 39 532 **References**

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