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Gender differences in motivation for participation in extra-curricular dance: Application of the Theory of Planned Behaviour

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Abstract

A key influence on motivation to take part in lifelong physical activity is experience of physical education during the school years. Curriculum-based dance is important for providing a pathway into extra-curricular dance because, for many young people, physical education is their only opportunity to experience dance. A sample of 362 adolescents (mean age 11.10 years, SD 0.85) from four UK schools completed questionnaires assessing predictors of intention to participate in extra-curricular dance, based on the Theory of Planned Behaviour. Mixed measures analysis of variance were conducted to establish whether intention, attitude, subjective norm and perceived behavioural control changed over time and if any observed change differed between boys and girls. Girls were significantly more motivated to participate in extra-curricular dance than boys. Participation in dance during physical education did not influence this difference. Creating the opportunity to participate in dance is not sufficient to enhance motivation for participation.

Keywords: dance, physical education, physical activity, adolescents, teaching

Introduction & Literature Review

A key concern in this special issue is the question of how best to develop current practice in dance education. Dance is now a key component of the National Curriculum for Physical Education (NCPE) in England from 5-14 years of age. Strong dance education programmes forming part of state and national curricula also exist in the United States of America, Australia and throughout Europe. Key drivers include the National Dance Education Organization (NDEO) (see Bonbright & McGreevy-Nichols, 2012) and the Australian Curriculum, Assessment and Reporting Authority (ACARA) (see Meiners, 2014). The aim of the NCPE in England is to ensure that all pupils become competent and confident dancers by means of physically active and engaging dance lessons. Through regular engagement in a range of dance styles and techniques, the aim of the NCPE is for pupils to lead healthy, active lives by following up their interest in extra-curricular participation. A key influence on motivation to take part in lifelong physical activity is experience of physical education during the school years (Dismore & Bailey, 2010; Hagger, Chatzisarantis, Biddle & Orbell, 2001). However, it is not yet known how increased opportunity to experience dance in school physical education lessons impacts on motivation to voluntarily engage in additional dance opportunities in school. One would hope that the experience of dance during school will impact positively on future dance participation. In this paper we consider whether curriculum-based dance during physical education for 11-13 year olds, enhances motivation for non-compulsory school-based dance by exploring the social cognitions thought to underpin motivation.

Participation in any type of extra-curricular activity is determined in some measure by willingness to take part. Therefore, it is necessary to first understand the beliefs that underpin participation motivation in order to develop strategies that increase participation in voluntary school-based physical activities. In this study we utilised the Theory of Planned Behaviour (TPB; Ajzen, 1991) to understand and explain the predictors of motivation for participation in extra-curricular dance. This theory has been used widely in exploring motivation to participate in physical activity both with adults and with children (e.g. Hagger, Chatzisarantis, Biddle & Orbell, 2001)

The TPB proposes that intention is the strongest predictor of behaviour and reflects the motivation for or willingness to engage in a voluntary behaviour such as extra-curricular dance. Extra-curricular physical activities are opportunities provided outside the formal PE curriculum (Penny & Harris, 1997). For the purposes of this paper, the term extra-curricular dance is used to describe dance offered in school as an after school offering, which is voluntary for pupil participation. According to the TPB, intention is influenced by three cognitions: attitude which is a person's 'favourable or unfavourable evaluation or appraisal of the behaviour', subjective norm, 'the perceived social pressure to perform or not perform the behaviour', and perceived behavioural control, 'the perceived ease or difficulty of performing the behaviour in the face of barriers and facilitators' (Ajzen, 1991, p188). Attitude is a composite of beliefs about the perceived outcomes that may be instrumental (i.e. advantages and disadvantages) or affective (i.e. likes and dislikes), subjective norm is comprised of normative beliefs regarding others who approve or disapprove and perceived behavioural control reflects perceived control regarding barriers and facilitators. No previous work has assessed the predictive validity of TPB in the context of extra-curricular dance.

There are gender differences in physical activity participation and these differences are most obvious in gender-stereotyped activities such as football and dance. This has been observed in the physical education curriculum and during extra-curricular physical activity (Smith, Thurston, Green & Lamb, 2007; Smith, Thurston, Lamb & Green, 2007; Sport England, 2003). Previous gender research in secondary school dance education has found girls appear more motivated to participate (Ntoumanis, 2001), however these findings must be treated with caution as the majority of the research in this area has focused on girls, with limited research into boys' curricular dance participation. Gender differences also become more apparent as children grow older (Institute of Youth Sport, 2011). Generally, boys have more positive attitudes to physical activity, are more engaged, and remain more physically active than girls (Larsson, Fagrell & Redelius, 2009). However, as girls reach adolescence, participation in physical activity rapidly declines (e.g. Pate, Stevens, Webber, Dowder, Murray, et al., 2009). Promotion of physical activity to better engage girls is therefore a challenge globally, both in and out of school; however dance education in secondary schools may have an important role.

Recognising the role of the education system in promoting dance led to the development of the Australian Arts Curriculum in 2014, with dance offered as one of five subjects to primary school pupils, with opportunities for pupils to take up dance as a specialism in secondary school. The move was seen as a positive step in the country's dance curriculum development. However, dance educators have argued that research into both teachers' and pupils' experiences of the day-to-day delivery of the dance curriculum is needed to evaluate its success (Meiners, 2014).

In the UK, one approach to increase the physical activity of 11-12 year-old girls has been to use extra-curricular dance as an after-school intervention

(Jago, Sebire, Cooper, Haase, Powell, et al, 2012). As dance is the most popular form of physical activity for adolescent girls in the UK, teaching dance as part of a series of NCFE lessons may have a positive impact on participation motivation for girls (O'Donovan & Kay, 2005), and girls will attend extra-curricular dance if it is available (Jago, Davis, McNeill, Sebire, Hasse, et al, 2011). The same however, may not be so for boys, who are less likely to take part in extra-curricular dance (Fairclough, Stratton and Baldwin, 2002). Consideration of gender differences in participation motivation is therefore necessary if the aim is to encourage extra-curricular dance participation as a form of physical activity during the school years.

Low participation in dance for boys may, however, be partly due to limited extra-curricular dance opportunities for boys in comparison with games-orientated physical activity (Fairclough, Stratton and Baldwin, 2002). Two recent studies with adolescents, one in England and the other in Australia, have found that after a lack of dance competence, accessibility was the most frequently cited barrier to extra-curricular dance participation for both boys and girls (Anderson, Leyland and Ling, 2014; Watson, Elliott & Mehta, 2015). The implication is that increasing opportunities to dance such as during physical education, may impact positively on participation levels in general. Supporting this is the finding that perception of skill is often cited by adolescents as a barrier to physical activity in general (Gomes et al., 2011). Inclusion of dance tuition during physical education may therefore contribute to changes to increased participation.

According to the TPB, there are determinants other than barriers that influence motivation. Pupil appraisal of extra-curricular dance, in addition to the presence or absence of perceived social pressure to perform or not perform, should also be understood alongside differences due to gender, if the aim is to promote extra-curricular dance participation to boys as well as girls. Although some boys do have a positive attitude to dance in general, less positive attitudes are held regarding certain types of dance such as ballet (e.g. Sanderson, 2001). The type of dance offered may therefore be an important influence on participation motivation. For this reason, we selected schools that delivered street dance as part of the physical education curriculum and also in the extra-curricular offer. Street dance is globally recognised as a favourable dance form for boys, while also appealing to girls. In the USA, street dance has also been championed as an art form that connects schools with their pupils, which if managed, can provide a conduit between communities and the schooling system (Dance, 2002). The term street dance is used to describe a range of dance forms that have emerged within adolescent street culture and is considered to appeal equally to boys as well as girls due to its physical demands and lack of delicate movements (Holdsworth, 2013). Evidence suggests that delivering a dance style to which pupils can connect, has a positive effect on their attitudes towards participation (Gilbert, 2005; Laskaridi, Moisiadou & Kouli 2009).

This study therefore aimed to determine whether motivation to participate in extra-curricular dance changed after participation in street dance as part of

the normal physical education curriculum and if any change found differed between boys and girls.

Method

Design

This study employed a quasi-experimental design. A pretest-posttest design was used to investigate changes in boys' and girls' motivation to take part in extra-curricular dance over a 12 week curriculum-based dance module. Data were collected using self-report questionnaires before and after 12 weeks of street dance tuition during physical education. We use the term street dance to refer to the hip-hop freestyle of dance delivered to pupils across the four participating schools. The pupils were taught a series of simple dance steps before being guided to choreograph their own dance moves to the music. For the majority of pupils their choreographed dances included simplified versions of breaking, locking and popping movements to a piece of popular music. Ethical approval was granted by the university research ethics panel of the first author. Head teachers gave informed consent on behalf of participating pupils. Parental consent was not sought as the study was nonintrusive and therefore unlikely to cause any harm or distress. Pupils who did not wish to participate were asked to return blank questionnaires.

Participants and procedure

A total of 397 participants were recruited into the study. However, 35 participants (15 boys, 20 girls) submitted incomplete or blank forms or were absent at the time of data collection, resulting in a sample size of 362 (181 boys, 181 girls) aged 11-13 years (mean age 11.10 years; SD 0.85). All completed a questionnaire at the start of the first physical education dance lesson of the new academic year and again at the end of the final taught session.

The target group were adolescents who attended one of four secondary schools in the North East of England. All were offered street dance in 12 weekly curriculum-based physical education lessons and also as an extra-curricular activity after school. All four schools were mixed-sex 11-16 year-old state comprehensive schools with a predominantly white population. Each school granted access to all pupils in the youngest year group in which curriculum-based dance lessons were compulsory to the physical education curriculum. Participation in the study was not mandatory with pupils across the selected year group volunteering to take part. Street dance was taught by full-time physical

education teachers who specialised in teaching dance. Class sizes ranged from 15-30 pupils who each received a 60-minute dance lesson per week.

Measures

Items on the questionnaire were developed following Ajzen, (1991). The questionnaire consisted of 30 questions, two items measured strength of intention; 'I intend to...' and 'I will try to...'. Cronbach's alpha coefficient was $\alpha = .853$ with an additional five direct and 23 indirect (belief-based) TPB predictor variables measuring attitude, subjective norm and perceived behavioural control. Each pupil completed the questionnaire twice: once before and once after a 12-week block of curriculum-based dance. In accordance with Ajzen (1991) the indirect measures were based on a previous study by the lead author which elicited 11 and 12 year old pupils' top three 'advantages'/'disadvantages' and 'things you would like'/'things you would dislike' about extra-curricular dance (attitudes), the 'people or groups of people' who would 'approve' and 'disapprove' of extra-curricular dance participation (subjective norm) and personal or situational circumstances that would 'make it easy' and 'make it hard' to participate (perceived behavioural control). According to Ajzen (1991) the direct measures are universal statements to be framed within the context of a study's target behaviour: to 'take part in dance within school as an extra-curricular activity in the next two weeks'. Direct measures are therefore general questions used to understand pupils' intention to take part in extra-curricular dance. The indirect measures provide a richer data set by supplementing the direct questions with additional measures based on information that has previously been sourced from the target population. All questions were scored on a 7-point unipolar Likert scale anchored by *strongly disagree* (1) to *strongly agree* (7).

Direct measures

Attitude was measured using two items: 'I expect... will be good' and 'I expect... will be pleasant' ($\alpha = .829$). One item measured subjective norm: 'Most people who are important to me think ... is a good idea'. Perceived behavioural control was measured using two items: 'If I wanted to I am confident that I could ...' and '... is entirely up to me' ($\alpha = .733$). The behaviour statement was inserted into each item in place of the ellipsis. Thus, as an example of a question used to measure perceived behavioural control, pupils were asked to rate their perception of control on the Likert scale according to the question - 'Taking part in dance as an extra-curricular activity in the next two weeks is entirely up to me'.

Indirect (belief –based) measures

Indirect measures of attitude, subjective norm and perceived behavioural control consisted of the most frequently cited outcome, normative and control beliefs about extra-curricular dance participation reported in a recent study with schoolchildren by Anderson et al. (2014). Five outcome beliefs were presented: '...will be enjoyable', '...will make me a better dancer', '... is a good way to socialise', '...will help me be able to express myself' and '...is a waste of my free time'. Three normative beliefs measured perceived approval from 'family', 'peers' and 'teachers'. Control beliefs consisted of three possible barriers: accessibility, dance competence and lack of time or other commitments.

Data analysis

Hierarchical regression analyses were conducted using both direct and belief-based measures in order to establish if the proposed TPB model predicted intention in the context of this behaviour. Regression analysis is first necessary to determine the ability of the TPB to predict motivational intention of the pupils to take part in extra-curricular dance. Hierarchical regression analysis then allows for each independent variable (attitude, subjective norm and perceived behavioural control) to be assessed in terms of what it adds to the prediction of the dependant variable (intention) (see Tabachnick & Fidell, 2013). Mixed measures between-within analysis of variance (ANOVAs) were then conducted to establish whether intention, attitude, subjective norm and perceived behavioural control changed after the 12 weekly dance sessions and if any change differed between boys and girls.

Results

We conducted preliminary assumption testing and no violations were observed in normality, linearity, univariate and multivariate outliers, independence of residuals and multicollinearity. Hierarchical regression analysis supported the utility of the TPB in explaining motivation for extra-curricular dance participation. The proportion of variance in intention when applying the direct measures of the TPB was 41.9%. The indirect measures explained 54.6% of the variance in intention.

A one-way between-groups analysis of variance was conducted to explore the effect of class size on intention, attitude, subjective norm, and perceived behavioural control. Participants were divided into two groups according to class size (small groups: 17 or less; large group: 23 or more). There was no significant effect of group size on any of the variables (all $p > .05$).

Mixed measures between-within ANOVAs were conducted to assess the impact of gender differences on intention, attitude, subjective norm, and perceived behavioural control, across the start and end of the 12 weeks of dance sessions. The pattern of results was the same using direct and indirect measures with only the direct measures presented here (see Table 1). We found no significant interaction between gender and time on any of the seven measures, Wilks' Lambda = 1.0, $F(1, 360) = 0.06$, $p = .80$, partial eta squared = < 0.1 . There was also no main effect for time on any of the seven measures, Wilks' Lambda = .99, $F(1, 360) = 1.75$, $p = .186$, partial eta squared = .005.

Main effects for gender were significant on intention, attitude, subjective norm, and perceived behavioural control. Boys' scores were significantly lower than girls on all seven measures both before and after the 12 week block. Intention ($F(1, 360) = 83.07$, $p < .001$, multivariate eta squared = .001), attitude ($F(1, 360) = 135.85$, $p < .001$, multivariate eta squared $< .001$), subjective norm ($F(1, 360) = 74.87$, $p < .001$, multivariate eta squared = .003) and perceived behavioural control ($F(1, 360) = 95.88$, $p < .000$, multivariate eta squared = .186). We controlled statistical analysis by class size, with class sizes grouped according to smaller numbers (17 or less) and larger numbers (23 or more). A one-way ANOVA was conducted which showed no significant differences between class size.

(Insert Table 1 here)

Discussion

In this study we found that girls reported stronger intentions to participate in extra-curricular dance than boys both before and after 12 weeks of street dance during physical education. This finding is in keeping with previous research highlighting that girls are more likely than boys to take part in extra-curricular dance (Fairclough, Stratton & Baldwin, 2002). We found that this gender difference in participation motivation was due to differences in how pupils evaluated extra-curricular dance, the social pressures affecting their decision to take part, and pupils' perceived difficulty of taking part. Compulsory participation in street dance during physical education did not influence motivation for either gender.

Attitude was the strongest predictor of intention suggesting that the perceived consequences of dance participation are stronger predictors of motivation than perception of barriers such as inadequate competency (Watson, et al., 2015) and lack of opportunity (Fairclough, et al., 2002). This is supported by the finding that a person's perception of the barriers and facilitators was the weakest predictor. Examination of pupils' appraisals of taking part in street dance indicated that, on the whole, girls expected extra-curricular dance to be enjoyable, a good use of time, make them a better dancer, and a good way to express themselves or socialise. Boys were less positive in their perception of

these potential outcomes. The implication is that behaviour change strategies aimed at promoting school-based dance will be most effective if they target a person's favourable or unfavourable evaluation of taking part in street dance. However, consideration should be given to gender differences as strategies that enhance enjoyment for girls, may not necessarily enhance enjoyment for boys.

Subjective norm was a significant predictor of intention. Changing the subjective norm is therefore one way of influencing participation motivation. Examination of the perceived social pressure to perform or not perform street dance during one's own time, suggested that important others such as family, peers and teachers can influence pupils' motivation. It is well established that teachers are strong role models for school children (Hills, Dengel & Lubans, 2014). In this study, physical education sessions were delivered by full-time physical education teachers who specialised in teaching dance. In line with previous research, motivation for dance is weaker for boys than for girls. Creating the opportunity to take part in a dance style considered to appeal to both boys and girls during physical education classes was insufficient to impact on motivation for the same dance style out of taught sessions.

Previous research has highlighted the potential for dance teachers to influence development of a social norm that promotes male equity in dance education (e.g. Risner, 2009). Our findings suggest that males' and females' decisions to participate in dance are indeed influenced by the teachers. However, family and peers are also influential, and to a greater extent than teachers. This suggests that an approach that focuses on development of a gender inclusive environment within the classroom only may not be as effective as an approach that considers the wider social influences on pupil participation in school-based dance.

Perceived behavioural control was the weakest predictor of intention. Perception of barriers due to accessibility, dance competence and lack of time due to other commitments was greater for boys than girls and did not change after participation in dance during physical education. As street dance was offered as an extra-curricular activity by all four schools in our study, the perception of inaccessibility and lack of time and commitments may have been due to barriers and facilitators that we did not measure such as reliance on parental support regarding transport to and from school. Strategies that encourage parents to take a more active role in extra-curricular activities may not only reduce the barrier of accessibility but may also contribute to the approval of family members.

For boys, social support is seen as particularly important, helping deal with and overcome barriers associated with the stigma of dance (see Risner, 2014). For any boys who positively appraise their personal involvement, support from others, including family, peers and teachers, may help overcome barriers to participation. The current study, in keeping with previous research, highlights family members, peers and teachers as the prominent influences. Social support appears less problematic for girls who appear more able to act upon their

intention to take part. However girls are perhaps faced with different barriers such as inaccessibility and lack of time which others can help appraise.

Our results confirm that there are a number of influences on motivation such as perception of dance ability which did not change after 12 weeks of tuition for girls and boys, however the barriers to participation that impact on intention may be weaker than personal evaluation and perceptions of approving/disapproving others. To this extent, pupils' motivation to participate in street dance requires an in-depth analysis of the underpinning factors that pupils' elicit as influencing their motivation to take part. There needs to be an account of how pupils' appraise their lessons, in addition to considering the social influences and barriers that affect their motivation. In light of this study's findings we recommend that pupils need to be supported by family, peers and/or teachers to follow up their interest towards extra-curricular dance participation. This would appear easier for girls who, on the whole, possess positive attitudes and who are generally supported to overcome barriers to participation. For boys the challenge appears more difficult. While the pool of those that demonstrate an interest in dance education is undeniably smaller, this only results in a greater need to help those with positive intentions to pursue their interest. Dance continues to be a compulsory content area of the NCPE in the UK. Therefore it is important to promote dance in a way that would be acceptable to pupils, adhering to pupils' views and accounting for the factors that underpin their approval. It is recommended that a targeted approach that accounts for the views of family, peers and teachers is used to help individual pupils make an informed judgment on their involvement with their school's extra-curricular activities.

Several reviews of the effectiveness of intervention to promote children and adolescent physical activity recommend a multi-level approach to the promotion of physical activity in schools (e.g. van Sluijs, McMinn & Griffin, 2007). Targeting multiple components at the personal level has the potential to be more effective than a single level approach such as creating opportunity when targeting adolescents in school. Targeting pupil evaluations and the perceived social pressures presented in this study, alongside efforts to reduce barriers, are therefore recommended where the aim is to increase motivation for participation in extra-curricular dance. Our results suggest that inclusion of dance in physical education alone may not be sufficient to impact on the determinants of participation in extra-curricular dance and that this is so for boys as well as girls.

Limitations

The beliefs making up the indirect measures were the most frequently occurring beliefs selected from a previous study with similar aged participants. The beliefs therefore may not have matched all of the beliefs held by the current sample. Further research would be necessary in order to examine the reliability of the beliefs presented in this study. Also, we did not measure actual dance participation. Although intention is considered a proxy for behaviour (see Ajzen,

1991), additional research would need to be carried out in order to examine fully the translation of motivation into actual participation. We did not examine attitudes towards street dance in general nor dance during physical education in this study. Further research is necessary in order to examine other dance forms and their impact on participation motivation giving careful consideration to the beliefs that differentiate girls and boys.

Conclusion

Girls had stronger motivational intention, more favourable attitudes, perceived greater social pressure and perceived fewer barriers to taking part in extra-curricular dance than boys and this difference remained after 12 weeks of street dance during physical education. Participation in street dance during physical education had neither a positive nor negative impact on motivation to participate in school-based street dance outside of school hours. Regarding the recruitment and retention of pupils in dance education, creating the opportunity to participate in dance during PE may be a useful means of introducing dance to those who may otherwise choose not to participate. This is supported by our finding that boys who participated in street dance during PE did not become more negative in their beliefs regarding voluntary street dance participation. This supports the view held by dance educators that dance forms such as street dance are a potential means of introducing dance in a non-gendered way. Creating the opportunity for boys to engage in dance is a necessary first step if possible stereotype views are to be challenged. Increased opportunity however is only one of several factors that contribute to dance motivation. In this study we highlight the need to consider two further factors namely, social norms and personal attitude. For example, the teachers in the four schools presented here were all women. This may have reinforced the gender stereotypical norms and associated attitudes towards dance such as a lack of enjoyment and embarrassment for boys. Although Risner (2009) found the dance teacher's gender had no significant impact on boys' motivation to dance, we support the view that development of a more gender-inclusive environment for dance education would be promoted through the delivery of dance by male teachers.

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Table 1.

Mean scores of intention and all TPB predictor variables for boys and girls recorded before and after taking part in 12 weeks of curriculum-based physical education dance lessons.

	Boys (start)	Boys (end)	Girls (start)	Girls (end)
INT	2.00 (1.44)	2.03 (1.60)	3.56 (1.95)	3.44 (2.01)
ATT (Direct)	2.87 (1.71)	2.95 (1.77)	4.80 (1.63)	4.67 (1.68)
ATT (Indirect)	46.68 (41.48)	47.65 (47.70)	112.64 (65.33)	109.08 (63.29)
SN (Direct)	2.98 (1.44)	3.17 (1.42)	4.12 (1.29)	4.09 (1.31)
SN (Indirect)	26.96 (23.79)	25.33 (24.47)	46.83 (30.62)	42.58 (28.85)
PBC (Direct)	3.62 (2.03)	3.53 (1.98)	5.25 (2.03)	5.11 (1.56)
PBC (Indirect)	34.93 (21.92)	31.47 (20.82)	55.72 (27.54)	54.12 (27.45)

Note: Mean scores are presented with standard deviation in brackets.