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# A qualitative investigation of the factors perceived to influence student motivation for school-based extracurricular sports participation in Japan

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## ABSTRACT

Lack of sufficient physical activity in youth is a worldwide concern. School-based extracurricular sports activities (SBECSA) are considered a central opportunity to increase youth physical activity. However, the factors that influence students' participation in SBECSA are not well established. Therefore, the purpose of the present study was to clarify the factors perceived to influence the motivation of Japanese students to participate in SBECSA. Semi-structured interviews were conducted with 23 junior high and high school students who participated in SBECSA. The KJ method was used to qualitatively analyse the transcribed interview data. Internal/intrapersonal factors included: attraction of sports; sense of responsibility and continuity; spirit of challenge; sense of advancement and physical condition. External factors included: team climate; encouragement and support; attributes of peers; policy and content of coaching; content of practice; events in school life and weather.

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## Introduction

Low levels of physical activity and increasingly unhealthy diets are leading causes of obesity, diabetes, lifestyle-related illness, and death (Dumith, Hallal, Reis, & Kohl, 2011; Kohl et al., 2012; World Health Organization, 2010, 2011; Zhang & Chaaban, 2013). The World Health Organization (2010) and national governments recommend that adolescents engage in physical activities and sport to support their physical and mental well-being (Ministry of Education, Culture, Sports, Science and Technology in Japan [MEXT], 2011; Sport Council Wales, 2009). In many countries, however, the proportion of adolescents meeting the recommended level of physical activity is insufficient (Australian Bureau of Statistics, 2013; Troiano et al., 2008). The economic cost of physical inactivity and sedentary lifestyles is increasingly recognized as an important reason for promoting lifelong physical activity (Carlson, Fulton, Pratt, Yang, & Adams, 2015; Ding et al., 2016; Kruk, 2014). It is therefore vitally important to promote physical activity and sports participation among adolescents.

Globally, school-based extracurricular sports activities (SBECSA) have been widely recommended to encourage adolescent participation in physical activity and sports (Australian Bureau of Statistics, 2012; Edwards, Kanters, & Bocarro, 2011; MEXT, 2013b; Sport Council Wales, 2009). One country with a long history of and a strong emphasis on SBECSA is Japan (Nakazawa, 2011, 2014). Japanese teachers coaching extracurricular activity spend on average 3–4 times longer than those in the other

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30 countries and four regions that participated in the Teaching and Learning International Survey (7.7 h a week; Organization for Economic Co-Operation and Development, 2013). Furthermore, the importance of conducting psychological research in different cultures and contexts beyond America and Europe has been re-emphasized by Hassmén, Keegan, and Piggott (2016). The provision of SBECISA in Japan forms an important part of children's experience in physical activity and sports because scheduled formal physical education (PE) lessons are limited (Japanese junior high and high school have only three 50-min classes a week; MEXT, 2008, 2009). Furthermore, students are rarely active for the entire period, as it includes time for preparation and teacher management (Minamishima & Takahashi, 2007; Takahashi, Okazawa, Nakai, & Yoshimoto, 1991). These restrictions on time and content threaten participation in sports and physical activity among school children, especially if they are not physically active in their leisure time (He et al., 2013; MEXT, 2013a). SBECISA offers schoolchildren an important opportunity for sports and recreational physical activity. Moreover, owing to the relatively low costs, no need for transportation, and the familiarity of the setting, the school may be more attractive to young people than community sports fields for sports and physical activity (De Meester, Aelterman, Cardon, De Bourdeaudhuij, & Haerens, 2014). There is also evidence that SBECISA contributes to the physical, mental, academic, and social development of adolescents (Farb & Matjasko, 2012). Taking all this into consideration, it is clear that SBECISA has a strong potential to increase children's and adolescents' levels of physical activity and participation in sports both in Japan and globally. To increase participation and decrease dropout, and thus to maximize the potential benefits of SBECISA, a strong understanding of the motivation for participation in SBECISA is essential.

In several current and influential theoretical approaches, motivation is viewed as the key determinant behind every action taken and every effort exerted (or not), as opposed simply to energization or arousal (Ryan & Deci, 2000). Thus, understanding the dynamics of motivational regulation in sports and physical activity is vital (cf. Keegan, Spray, Harwood, & Lavallee, 2010a). While aspects of individuals' motivations are determined by their beliefs, cognitions, and values, most theories of motivation acknowledge significant influences of key social agents such as teachers, coaches, or other participants (Ryan & Deci, 2000). A considerable volume of research has been generated attempting to conceptualize and measure these social influences on motivation (for reviews see Harwood, Keegan, Smith, & Raine, 2015; Harwood, Spray, & Keegan, 2008). For example, within achievement goal theory (AGT; Nicholls, 1989), sport participants' immediate goals for achievement are determined by the interaction of their goal orientation (the tendency of individuals to adopt certain goals) with the situational goal climate (the specific situational and contextual circumstances in which the achievement task is defined; Ames, 1992). The dichotomous AGT approach proposed by Nicholls (1989) defines two types of achievement goals: (a) performance/ego goals that emphasize normative evaluations and outperforming others, and (b) mastery/task goals emphasizing effort, personal improvement, and task mastery. Task goals have almost invariably been associated with positive motivational outcomes, whereas ego goals are hypothesized to produce an array of less desirable outcomes, especially when the person's perceived competence is low, or where not accompanied by task goals (for full reviews see Elliot, 1999; Harwood et al., 2008).

Separately, self-determination theory (SDT; Ryan & Deci, 2000) conceptualizes competence, autonomy, and relatedness as core psychological needs. SDT posits that the degree to which any context, situation, or relationship supports these needs directly predicts a person's level of motivation. Although AGT chiefly concerns the pursuit of competence (Roberts, 2001), Stuntz and Weiss (2003) argued that as sporting events take place in public, they are inherently linked with social considerations. Indeed, it can be suggested that social considerations are inseparable from the pursuit of competence in sports settings. Urdan and Maehr (1995) stated that social goal orientations had originally been included in AGT, and argued that they should be explicitly recognized when describing and explaining achievement behaviour. These social goals may include social welfare goals (benefiting society), social responsibility (conscientiousness), social affiliation (feeling a sense of belonging), and social status goals (Urda & Maehr, 1995; Wentzel & Wigfield, 1998). Both these

theories of motivational regulation and their derivatives have been linked with differences in the levels of self-reported intrinsic/extrinsic motivation (Barkoukis, Thøgersen-Ntoumani, Ntoumanis, & Nikitaras, 2007; Kavussanu & Roberts, 1996; Smith, Ullrich-French, Walker, & Hurley, 2006). Despite the dominance of AGT in investigations of the motivational climate, research adopting other theories has frequently and fruitfully addressed interpersonal and social considerations, such as relationships (Mageau & Vallerand, 2003; Ullrich-French & Smith, 2006); autonomy support (Conroy & Coatsworth, 2007; Gurland & Grolnick, 2005; Pelletier, Fortier, Vallerand, & Brière, 2001); peer-friendships and group considerations (Allen, 2003; Weiss, Smith, & Theeboom, 1996); and approach-or-avoidance motivations of significant others (Barkoukis et al., 2007; Church, Elliot, & Gable, 2001; Elliot, 1999).

The above discussion of numerous different theoretical standpoints, all of which are relevant and informative regarding motivation in SBECSEA, suggests that investigations of the motivational climate, particularly qualitative research, may justifiably adopt a 'theoretically agnostic' approach without making an a priori commitment to one or another theory to guide analysis and/or interpretation (as advocated by Henwood & Pidgeon, 2003). This absence of a guiding theory is best understood as an open mind rather than an empty head (see also Sandelowski, 1993), whereby researchers can be aware of and sensitive to existing theories but not guided or constrained by one particular choice.

In the last decade, an increasing body of research has adopted a critical realist approach to motivational climate research. For Keegan, Harwood, Spray, and Lavalée (2009), 2010b, (2014a) explored the influences of coaches, parents, and peers on athletes' motivation at the sampling, specializing, and elite career stages, respectively. Keegan, Spray, Harwood, and Lavalée (2014b) synthesized the qualitative research in this area to illustrate differences between career stages. However, the majority of these qualitative studies focus on organized sports, often outside the school setting. Harwood et al. (2015) noted that many quantitative studies focussed on team sports and PE settings. Furthermore, the vast majority of existing research has been conducted in the US, UK, Spain, and Norway (Harwood et al., 2015). In Japan, SBECSEA is conducted more actively (e.g. high participation rate of students) than in the US and UK (Nakazawa, 2014). SBECSEA provides Japanese students with their main opportunities to participate in sports. Several studies (Ministry of Education, Culture, Sports, Science, and Technology in Japan, 2013b; Sasakawa Sports Foundation, 2014) have found that 65% of junior high school students and 42% of high school students participate in SBECSEA. Furthermore, the links between school education and SBECSEA are very strong (Ministry of Education, Culture, Sports, Science, and Technology in Japan, 2008, 2009; Nakazawa, 2014), and Japanese government policy requires teachers to provide opportunities to participate in and learn about sports and physical activity beyond the standard curriculum. To understand students' motivation in such a context is valuable, yet currently little is known about this in Japan. After-school activities such as SBECSEA may be qualitatively different, and Japanese SBECSEA may be unique due to its pivotal role in Japanese education (cf. Ministry of Education, Culture, Sports, Science, and Technology in Japan, 2008, 2009). Thus, the present study sought to qualitatively examine the factors perceived as influencing the motivation of students to participate in SBECSEA. The research questions of the present study were as follows:

- (1) What factors are perceived to influence the motivation of adolescent students to participate in Japanese SBECSEA?
- (2) What motivational influences of Japanese SBECSEA appear to be unique (or differently emphasized) in SBECSEA and/or Japan than in youth sports and performance sports in Western cultures?

## Methods

### Participants

Based on the sample size recommendations of Guest, Bunce, and Johnson (2006), 23 students from three junior high and three high schools who participated in SBECSEA were recruited. To vary the characteristics

of the participants, purposive snowball sampling was used (Handcock & Gile, 2011), whereby the researcher liaised with class teachers to select new participants. For example, the researcher requested teachers to introduce students of various grades, genders, and types of sports. Participants were from five prefectures of Japan representing nine SBECSA activities/formats (two badminton teams at different schools, basketball, Japanese archery, soccer, swimming, table tennis, track and field, and volleyball). There were 12 females and 11 males interviewed, with a mean age of 15.0 (standard deviation:  $SD = 1.4$ ). All participants were of Japanese ethnicity. The mean years of sport experience was 4.5 ( $SD = 1.9$ ). The competitive level of SBECSA varied from a purely recreational level to winning prefectural competitions and participating in national competitions. Therefore, the study sample represented a wide range of Japanese SBECSA. Participants were offered a gift card worth 1000 yen (i.e. 10 US dollars, 6.6 pounds sterling, or 7.7 Euros as of July 2013) for taking part in the research. The participants and their parents were informed of the purpose and design of the research, and both provided their written informed consent. The protocol and consent form were delivered by the participants to their parents and returned to the researcher. The research proposal was approved by the ethics board of Waseda University (No. 2013–020).

### **Interview procedure**

Interviews took place at the individual's respective school sites. Interviews took an average of 18.6 min ( $SD = 5.2$ ), ranging from 10.3 to 29.3 min, and all interviews were conducted by the first author. Each participant's demographic characteristics were obtained in writing. Following informed consent and the recording of these details, one-on-one semi-structured interviews were conducted following an interview guide that included points of attention during the interview (e.g. maintaining an open-ended approach and using repetition) and the following open-ended core question: What factors increase or decrease your motivation to participate in SBECSA? Based on the core question, the researcher was given the freedom to change the exact phrasing of questions and prompts (e.g. 'Why did you join the SBECSA?' or 'Do you have any reasons to think about quitting the SBECSA?') to obtain a full range of responses and opinions. Participants were asked to respond freely to the questions. For consistency, all the interviews were conducted in Japanese by a researcher who was experienced in using the interview guide (Flick, 2011). The interviews were recorded following an agreement by the participants, and all interviews took place between July and October 2013.

### **Analysis**

The KJ method (Kawakita, 2004; Scupin, 1997) was used to analyse the data. The KJ method, sometimes called the 'idea making method', is a means of qualitative analysis in four steps: (1) label making; (2) label grouping; (3) chart making; and (4) written or verbal explanation. The first two steps created initial categories and facilitated ongoing iterative explorations of the data and its meanings. These two steps are similar to open-coding in a grounded theory approach (Flick, 2011). First, each recorded interview was transcribed verbatim (in Japanese). Three researchers with expertise in sports education or psychology then carefully read the transcripts for familiarization. After careful reading, the researcher who conducted all the interviews selected and coded minimal meaningful units pertaining to motivation. Once this was completed, the three researchers discussed any conflicts in the segmentation, and a final segmentation scheme was determined. Units of similar content were grouped together in subcategories, and the final labelling of all the subcategories was agreed upon by all three researchers. Related subcategories were further grouped to create several main categories, which encompassed the general theme of the included subcategories. As the analysis continued, the research team found it advantageous to divide the emerging categories into internal versus external factors. Independent segmentation and subsequent consensus among the three researchers enhanced the objectivity of the analysis (i.e. triangulation; Flick, 2011). Finally, a peer debrief (Lincoln & Guba, 1985) was conducted with a further expert researcher throughout as well as in a review of the final analysis.

## Results

From 78 pages of verbatim reports (Japanese text; total interview length for 207 min), 284 meaning units were extracted. Internal factors relate to students' own psychological character or attitude, external factors to other people, the system, or the environment. Examples of raw data are described in Tables 1 and 2.

### *Internal factors*

Five categories of internal factors affecting students' motivation to participate in SBECSEA emerged (Table 1): (1) attraction of sports; (2) sense of responsibility and continuity; (3) spirit of challenge; (4) sense of advancement; and (5) physical condition. There were 25 subcategories; for further details, see Table 1.

#### *Attraction of sports*

Participants' perceived favourability of the sport and exercise itself motivated their participation in SBECSEA. This category, which seems the most similar to intrinsic motivation in self-determination theory, comprised the following six subcategories, with further explanation and examples provided in Table 1: Love of the sport; enjoyment; desire to move the body; could not do SBECSEA yesterday; existence of SBECSEA and stress release. As noted above, quotes to further illustrate these themes are available in Table 1.

#### *Sense of responsibility and continuity*

Continuing within a specific sport and not giving up was one motivating factor identified by students. Some students felt a responsibility to engage in SBECSEA, perhaps reflecting a degree of introjected motivation according to self-determination theory. This category included six subcategories: Commitment to continue; the desire to 'keep my word'; feeling of responsibility; honouring previous effort invested; 'feeling natural' to join SBECSEA and guilt for unskilled play. Only 'guilt for unskilled play' was discussed as a negative influence on motivation to participate in SBECSEA, while 'sense of responsibility and continuity' described a perceived emphasis on continuing the sport from earliest childhood. These factors are aligned to reports of the carry-over effect of youth physical activity or participation in organized youth sports (Kjønniksen, Anderssen, & Wold, 2009; Telama, 2009). Students generally join SBECSEA according to their particular school stage (i.e. junior high school or high school). Therefore, continuity from an earlier period could be a key factor in joining SBECSEA. Promoting participation in sports in elementary school or earlier childhood may increase students' participation in SBECSEA later in school. Furthermore, cooperation and information sharing between teachers at each school stage might be valuable.

#### *Spirit of challenge*

This category pertained to motivation derived from overcoming some challenge or difficulty, such as a desired selection, competitive outcome, absolute standard, or skill to learn. This category had six subcategories: Desire to win; sense of accomplishment; existence of competition; intra- or inter-team rivalry; out of condition and desire to avoid the same mistake. 'Out of condition' means that physical or mental conditioning or skill execution had fallen below a previous level, leading to a strong desire to overcome this decline.

#### *Sense of advancement*

This category related to improving one's own performance, skills, ability, and physical fitness and comprised four subcategories: Desire to improve skill; improving one's own ability; improving physical fitness and being unable to play well. 'Being unable to play well' was discussed as a negative influence on motivation to participate in SBECSEA. This category of themes differed

**Table 1.** Internal factors affecting the motivation of students to participate in SBECSA.

Category	Subcategory (direction of effect)	Examples of raw data (number of meaning unit)
Attraction of sports	Love of the sport (+)	I like the sport. It's the biggest reason. (16)
	Enjoyment (+)	There are many joyful aspects than things I find hard. (7)
	Desire to move the body (+)	I just want to move my body. (5)
	Could not do SBECSA yesterday (+)	One day, we couldn't do SBECSA because of teachers schedule. And next day, we had much more motivation. (2)
	Existence of SBECSA (+)	I did it just because there is [the sport] club. (2)
	Stress release (+)	If I was bothered with studying, I can vent my feelings in SBECSA. (1)
	Commitment to continue (+)	I don't like give up. So I want to continue SBECSA. (6)
	Desire to "keep my word" (+)	After the last competition in my previous school, I said that I will continue [the sport]. So I can't quit. (4)
	Feeling of responsibility (+)	I'm captain. I have to be mature. So I don't miss/skip SBECSA no matter how I get tired. (3)
	Honouring previous effort invested (+)	At first, it was really hard and I didn't voluntarily join the SBECSA. But now, I think I can conquer because I have done until now. (2)
Spirit of challenge	"Feeling natural" to join SBECSA (+)	Before thinking quit or not, that (doing the sport) is natural for me. (2)
	Guilt for unskilled play (-)	In the past I really caused trouble to others, so I want to make up for that. (3)
	Desire to win (+)	Because I want to win the game. (15)
	Sense of accomplishment (+)	I try hard in SBECSA, and I feel a sense of accomplishment when I can perform it well in competition. (5)
	Existence of competition (+)	The motivation increases in the day before the competition. (4)
	Intra- or inter-team rivalry (+)	I have fighting spirit with teammates. Therefore I can try hard. (3)
	Out of condition (+)	When I sense I am unfit or out of form, I feel try harder. (2)
	Desire to avoid the same mistake (+)	Once I get criticized, I don't want to make the same mistake again (2)
	Desire to improve skill (+)	I feel pleasure when I practice hard and improve my performance. (25)
	Improving one's own ability (+)	It improves my weaknesses and makes me more capable. (10)
Sense of advancement	Improving physical fitness (+)	It built muscle. Additionally, I get tired soon when I run, but it has changed. (2)
	Being unable to play well (-)	I can't enjoy the sport when my performance isn't good. (5)
	Fatigue (-)	When I'm tired with school or class, and really sleepy, I want to miss/skip SBECSA. (8)
	Injury (-)	I couldn't play well in the game before because insufficient practice with my injury. So injury let down my feeling. (3)
	Bad physical condition (-)	When my physical condition is bad. (2)

Note: (+) means increasing motivation; (-) means decreasing motivation; number after examples of raw data shows all numbers of raw data in the subcategory.



**Table 2.** External factors affecting the motivation of students to participate in SBECSA.

Category	Subcategory (direction of effect)	Examples of raw data (number of meaning unit)
Team climate	High level of achievement/competition in SBECSA (+)	Senior member got a top eight place at the prefectural competition. That impressed me to be as the member, it set the goal for me. (11)
	Serious emphasis on SBECSA (+)	I saw some SBECSA with friends during our probationary period, [the sport] club had a very serious climate. (2)
	Other team member(s) with low motivation (-)	When the team motivation is low, or I can't recognize others' motivation, my own motivation is diminished. (9)
	Bad atmosphere in SBECSA (-)	In practice, when dangerous play occurred, people got angry soon and it made the climate worse. (5)
Encouragement and support	Lack of unity among team members (-)	Our opinions were too varied. (4)
	Disagreement or struggle with a team member (-)	I sometimes struggled with my teammate, it made me not want to go back. (4)
	Other team member(s) not following instruction (-)	Even if I tell something over and over, but they don't follow me, they don't change. (3)
	Lack of focus or serious emphasis (-)	I want to be serious, but now it is a little playful, I want to be more competitive. (1)
Attributes of peers	Encouragement from others (+)	Encouragement cause my motivation. (15)
	Existence of teacher/coach (+)	The coaches and teachers support us, it's their job. (8)
	Family's implementation of the sport (+)	The reason to continue is maybe that my mother also play the sport, so I am following her. (4)
	Support of family (+)	My family support me. (3)
Policy and content of coaching	Gratitude to teacher/coach (+)	My motivation increases when others show trust in me. (1)
	Being trusted by teacher/coach (+)	The day after the competition, my mother said I should have done better. It made me not want to go to SBECSA. (2)
	Existence of peers (+)	I really enjoy SBECSA thanks to teammates. I'm looking forward to SBECSA. (25)
	Existence of friend in another school (+)	I have friends in other schools who I met through [the sport], and I want to meet at competition site. (8)
Content of practice	Arrival of older member (+)	I'm glad when former members come and [play] with us. (3)
	Desire to support peers (+)	There is a member who is struggling to learn and perform. Someone needs to help and I think it's my purpose. (1)
	Retirement of older team members (-)	Senior members will retire soon and I want to do more SBECSA with them before they leave. (1)
	Being praised by teacher/coach (+)	Being praised by teacher increases motivation. (4)
Events in school life	Inconsistency between self's and coach's assessment (-)	Despite I try many times seriously, teacher said that my motivation is insufficient. This decreased my motivation. (5)
	Getting criticized by teacher/coach (-)	What decreased my motivation is, although I know I was wrong, getting criticized. (4)
	Taking collective responsibility (-)	When younger member cause some problems, it reflects on the whole team and makes my motivation decrease. (1)
	Unusual contents of practice (+)	I can think to try harder when we do new and different things. (4)
Weather	Hard training (-)	When the practice are too hard, it's physically and mentally tough. I sometimes feel like quitting. (8)
	Being not able to do desirable practice (-)	I want to do resistance training, and I physically to run. But I have to do what teacher indicated. (4)
	Having a lot of homework (-)	When I have bad day at school, such as too much homework, sometimes I don't want to go to SBECSA. (2)
	Rainy day (-)	It is particular problem of [the sport], the [material] doesn't [work] well. So I don't like rainy. (1)

Note: (+) means increasing motivation; (-) means decreasing motivation; number after examples of raw data shows all numbers of raw data in the subcategory.



meaningfully from 'spirit of challenge' by reflecting a broad emphasis on mastery/task-oriented motivation, as opposed to specific aims/goals, in the same way that achievement goals differ meaningfully from goal-setting.

### ***Physical condition***

Poor physical/somatic condition negatively influenced students' motivation. Particular subcategories were as follows: fatigue; injury and bad physical condition. For illustrative quotes see [Table 1](#).

### ***External factors***

Seven categories of external factors affecting students' motivation to participate in SBECSEA emerged ([Table 2](#)). The categories were: (1) team climate; (2) encouragement and support; (3) attributes of peers; (4) policy and content of coaching; (5) content of practice; (6) events in school life; and (7) weather. There were 29 subcategories; for further details, see [Table 2](#).

### ***Team climate***

Climate, mood, or atmosphere of the team affected students' motivation. This category included eight subcategories: High level of achievement/competition in SBECSEA; serious emphasis on SBECSEA; other team member(s) with low motivation; bad atmosphere in SBECSEA; lack of unity among team members; disagreement or struggle with a team member; other team member(s) not following instruction and lack of focus or serious emphasis. Posterior 6 subcategories were chiefly discussed as negatively influencing motivation to participate in SBECSEA. Thus, 'team climate' affected students' motivation, in that teachers/coaches are expected to deliver not only technical coaching, but also perform other roles such as establishing the psycho-social climate of SBECSEA.

### ***Encouragement and support***

This category is related to the encouragement and support of teachers, coaches and parents/family members. This category comprised the following seven subcategories: Encouragement from others; existence of teacher/coach; family's implementation of the sport; support of family; gratitude to teacher/coach; being trusted by teacher/coach and indication of mistakes. Only 'indication of mistakes' was reported as negatively influencing motivation to participate in the SBECSEA; i.e. when mistakes were pointed out by others, participants reported that their motivation declined.

### ***Attributes of peers***

Peers and team-mates related to students' motivation almost entirely positively. This category comprised five subcategories: Existence of peers; existence of friend in another school; arrival of older member; desire to support peers and retirement of older team members. 'Retirement of older team members' was perceived to be a negative influence on motivation to participate in SBECSEA. Not only school peers, but also friendships with out-of-school friends (i.e. on opposing teams/schools) were motivational factors. Also, intergenerational bonding with older members was reported.

### ***Policy and content of coaching***

Coaching policy and methods positively or negatively affected motivation. This category had four subcategories: Being praised by teacher/coach; inconsistency between self's and coach's assessment; getting criticized by teacher/coach and taking collective responsibility. In this theme, only 'being praised by teacher/coach' was consistently presented as beneficial to motivation towards SBECSEA.

### **Content of practice**

Similar to the above category, students were positively or negatively influenced by the contents of practice. The category included three subcategories: Unusual contents of practice; hard training; and being not able to do desirable practice. 'Unusual contents of practice' was positively linked to motivation for SBECSEA, in that students reporting liking/enjoying variety in practice.

### **Events in school life**

Some troubles or negative events such as 'having a lot of homework' negatively affected participation in SBECSEA. Because SBECSEA is practised on school fields under teachers' supervision, it has a strong connection with school life. In some cases in Japanese schools, students who forget to do their homework are as a penalty not allowed to participate in SBECSEA.

### **Weather**

Bad weather (e.g. cold/rainy) was reported as reducing the motivation to participate in SBECSEA.

## **Discussion**

To clarify the factors affecting the motivation of students to participate in SBECSEA, one-on-one semi-structured interviews were conducted with 23 junior high and high school students who participate in SBECSEA. The resulting thematic analysis identified both internal (beliefs, attitudes, skills) and external (motivational climate, national culture) factors perceived to be relevant to motivation for SBECSEA. While there have been a number of questionnaires validated to evaluate sports motivation, including the Sport Motivation Scale (Kawabata & Mallett, 2013; Mallett, Kawabata, Newcombe, Otero-Forero, & Jackson, 2007; Pelletier, Rocchi, Vallerand, Deci, & Ryan, 2013; Pelletier et al., 1995) and the Behavioural Regulation in Sport Questionnaire (Lonsdale, Hodge, & Rose, 2008), these questionnaires are not specific to Japan or SBECSEA and have a conceptual gap between measurements of motivation and the practical actions and initiative to improve it. The present study clarified practical motivational factors perceived as influencing the motivation of adolescent students to participate in Japanese SBECSEA so as to help improve its management. Regarding the second research question, some unique aspects of Japanese SBECSEA were also identified. For example, Keegan, Spray, Harwood, and Lavallee (2010b) categorized practical/detailed motivational factors in western culture and focused on the general sport field; unlike their results, strong relationships with teachers as opposed to coaches (in 'encouragement and support') and perceptions of school life (in 'events in school life') were identified as relatively unique aspects of the SBECSEA setting. Furthermore, the themes of 'physical condition' and 'weather' were also interesting aspects of the present data. A possible reason for this is that many motivational studies tend to focus on psychological (intrapersonal) and interpersonal factors, rather than physical and environmental factors.

'Attraction of sports' and 'sense of advancement' were categorized as internal factors. These categories were consistent with the notion of intrinsic motivation (Deci & Ryan, 1985; Ryan & Deci, 2000). Additionally, 'policy and content of coaching' and 'content of practice' emerged as external factors similar to those of Keegan et al. (2010b) that relate to coaches' behaviour. Previous studies mentioned that coaches' attempts to enhance autonomy, competence, and relatedness can increase intrinsic motivation (Pelletier et al., 2013, 1995). In order to support autonomy, competence, and relatedness, Standage, Duda, and Ntoumanis (2005) suggested the following strategies: (1) increasing the students' opportunities for choice by providing increased opportunities for student input, and/or establishing peer-learning groups for autonomy support; (2) promoting environments emphasizing self-referenced standards and indicators of improvement, as opposed to competitive situations in which evaluated outcomes are contingent upon the performance of others for competence support; and (3) using small group activities and developing reward structures that support cooperation for relatedness support. Furthermore, coaches' democratic leadership style has been positively related to autonomy, competence, and relatedness (Wang, Koh, & Chatzisarantis, 2009). Therefore, teachers/coaches in SBECSEA should try to

enhance students' autonomy, competence, and relatedness with a democratic style to improve 'policy and content of coaching' and 'content of practice.' In light of the findings of the present study, a wide variety of practice contents would also serve to increase motivation. In Japan, there is a recognition that more teachers without a strong interest or experience in sports become SBECSEA coaches than in the US and UK, where teachers may receive more training in sports and physical education (Nakazawa, 2014). The Japan Sports Association (2014) indicated that 45.9% of junior high school and 40.9% of high school SBECSEA teachers are not PE teachers and lack sports experience. Thus, the findings of this study suggest holding workshops for SBECSEA teacher-coaches to develop their skills to facilitate a greater choice and diversity of activities, especially for non-PE teachers, who have few opportunities to learn such skills.

With respect to 'encouragement and support' and 'attributes of peers,' the viewpoints of coaches, parents, and peers were consistent with previous studies that broadly targeted adolescent and elite sports areas rather than SBECSEA (Keegan et al., 2010b, 2014b). The present study further clarifies the roles of teachers. For example, the commitment of the teacher was considered an important determinant of motivation in SBECSEA. Also, 'events in school life' indicate an important perceived role for the student's 'bond' to the SBECSEA teacher and school life. In particular, Japanese SBECSEA forms a part of school education (Ministry of Education, Culture, Sports, Science, and Technology in Japan, 2008, 2009), and arguably there is no country with such a heavy emphasis on SBECSEA conducted as a part of school education as Japan (Nakazawa, 2011, 2014). This emphasis may explain the apparent importance of internal students' perceptions and feelings towards the teacher and school life. However, Flintoff (2008) indicated that SBECSEA is considered more educational when managed by a teacher. Aoyagi et al. (2016) also reported wider perceived benefits to SBECSEA students when their own teachers were perceived to offer stronger general coaching (perhaps by knowing the students better), facilitated the development of social networks, improved the SBECSEA atmosphere, and participated in SBECSEA, and thus the presence of the regular teacher at SBECSEA was reported as connecting students with school life. Taken together, these findings suggest that it is better for teachers to engage in SBECSEA even if there is an external coach.

Some of the subcategories identified in our analysis – such as 'desire to win' in internal factors and 'being praised by teacher/coach' in external factors – are considered to relate to extrinsic motivation in self-determination theory and ego-orientation in achievement goal theory (Cumming, Smith, Smoll, Standage, & Grossbard, 2008; Nicholls, 1984). In both theories, these forms of motivational regulation are assumed to be unfavourable. Furthermore, based on expectancy theory (Steel & König, 2006; Vroom, 1964), the sum of values is an important concept, as motivation is affected by the combination of several motivational factors, whether intrinsic or extrinsic. The conclusions of expectancy theory are similar to the qualitative results of the present study, suggesting that a complex interplay of motivational factors is involved in students' motivation for SBECSEA. Most researches using existing measurements such as the Sport Motivation Scale (Kawabata & Mallett, 2013; Mallett et al., 2007; Pelletier et al., 2013, 1995) or the Behavioural Regulation in Sport Questionnaire (Lonsdale et al., 2008) do not report such an evolving network of motivational influences, as the data are cross-sectional and relatively abstract. As for the theoretical implications, future research in this area should consider methods for evaluating the sum of a diverse range of internal and external motivational factors in determining student/athlete motivation.

The present study clearly identified the types of factors affecting the motivation of students to participate in Japanese SBECSEA. In the future, clarifying practical (i.e. not conceptual) factors would be valuable to improve SBECSEA. However, among the limitations of this study, the open qualitative responses provided by the participants in this study limited the ability to assess the extent to which students perceive these theoretically specified, well-defined concepts. Future research should be conducted to evaluate the intensity of key motivationally relevant behaviours by SBECSEA coaches and participants in determining an individual's motivation for SBECSEA. Additionally, differences based on participants' characteristics (e.g. age, gender, and prefectural area) were not clarified in this study, and yet we would anticipate that they would play a significant role in determining how coach and peer behaviours are interpreted and their subsequent impacts on motivation. Thus, future research is needed

to quantify the ongoing and dynamic influences of coaches and peers on motivation of SBECSA participants.

## Conclusion

In conclusion, the present study found unique features in perceived motivation that influence students' participation in SBECSA. Compared with previous studies in western culture focused on the general sports field, strong relationships with the teacher and perceptions of school life were identified as relatively unique aspects of Japanese SBECSA. Additionally, the present study clarified practical motivational factors perceived as influencing the motivation of adolescent students to participate in SBECSA. Taking the factors clarified in this study into account in measures to improve SBECSA could help promote students' participation in SBECSA.

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