

The Characteristics of Coaches that Verbally or Physically Abuse Young Athletes

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Verbal or physical abuse from coaches has a negative impact on young athletes. To prevent abuse against young athletes, it is important to know the characteristics of abusive coaches. This study aimed to elucidate the characteristics of coaches who commit verbal or physical abuse in youth sports teams. A cross-sectional study was conducted with coaches of youth sport teams in Miyagi prefecture, Japan (n = 1,283), using a self-reported questionnaire (response rate was 24.0%). Multivariate logistic regression models were used for analyses. The prevalence of verbal and physical abuse towards young athletes was 64.7% (n = 830) and 6.2% (n = 79), respectively. Verbal abuse was significantly associated with lower educational attainment (odds ratio (OR): 1.32, 95% confidence interval (95% CI): 1.03-1.69), experiences of verbal abuse by own coaches (OR: 1.85, 95% CI: 1.37-2.50), acceptability for verbal or physical abuse (OR: 2.53, 95% CI: 1.82-3.52), and dissatisfaction with athletes' attitude (OR: 1.62, 95% CI: 1.26-2.07). Physical abuse was significantly associated with experiences of physical abuse by respondents' coaches (OR: 2.71, 95% CI: 1.50-4.92), acceptability for verbal or physical abuse (OR: 3.89, 95% CI: 2.39-6.33), and longer experience of coaching in years (OR: 2.45, 95% CI: 1.20-4.98). The results of this study show that coaches who commit verbal or physical abuse had typically experienced abuse from their former coaches, and adopted a similar style. Breaking the negative cycle of verbal and physical abuse is necessary to eliminate the abuse of young athletes.

Keywords: coach; physical abuse; sport; verbal abuse; young athlete

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Introduction

It is well known that sports activities are associated with numerous health benefit for children and adolescents (Janssen and Leblanc 2010) such as preventing obesity (Klein-Platav et al. 2005), increasing cardiovascular conditioning (Strong et al. 2005), and decreasing depression (Biddle and Asare 2011). Along with health advantages for children and adolescents, participation in sports at younger age improves self-esteem (Slutzky and Simpkins 2009), helps children develop emotional regulation and physical skills (Hansen et al. 2003), and teaches cooperation and leadership (Merkel 2013). Physical activity also has a positive influence on adults' health status (Dennison et al.

1988), preventing hypertension, coronary heart disease, diabetes mellitus, some cancers, and osteoporosis (Warburton et al. 2010). However, physical activity across all age groups is currently declining (Tremblay et al. 2011). Many children and adolescents lead sedentary lifestyles characterized by low physical activity (Bermejo-Cantarero et al. 2017), which is an important predictor of low physical activity in adulthood (Telama et al. 1997). Because exercise habits are established during childhood and adolescence, it is important to promote physical activity in these formative years (Dennison et al. 1988).

Although participation in sports activities has beneficial effects on both the physical and mental health of children and adolescents, it can be a source of stress and anxiety

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ety, due to an overemphasis on winning; the pressure to succeed; and poor relationships with coaches, parents, or peers (Holt et al. 2006; Ommundsen et al. 2006). Further, interpersonal violence, such as sexual harassment, physical abuse, and verbal abuse, is also one of the negative aspects of sports activities, which have a seriously negative impact on the physical and psychological health of young athletes and lead to impaired performance, cessation of sports activities, and psychosomatic illnesses (Mountjoy et al. 2016). Harassment and abuse are generally defined as intimidating behavior against someone weaker or less powerful (Swigonski et al. 2014). The coach-athlete relationship is a focal point because the two have an asymmetrical power relationship (Vertommen et al. 2016). The International Olympic Committee Consensus Statement documented that "all athletes have a right to engage in "safe sport": an athletic environment that is respectful, equitable, and free from all forms of non-accidental violence to athletes" (Mountjoy et al. 2016). Compared to sexual harassment, far less attention has been paid to verbal and physical abuse to young athletes (Vertommen et al. 2017). However, verbal abuse remains a common aspect of coaching, and physical abuse is a negative aspect of coaching in sports (Swigonski et al. 2014; Vertommen et al. 2016). To prevent and eradicate abuse against young athletes, it is important to know the characteristics of abusive coaches.

The purpose of this study was to elucidate the characteristics of coaches who commit verbal or physical abuse in youth sports team.

Materials and Methods

Participants

A cross-sectional study was conducted on coaches who are members of the Miyagi Amateur Sports Association, which was founded with the aim of promoting health among youth through various sports (baseball, soccer, volleyball, basketball, judo, karate, kendo, athletics, tennis, badminton, and others) in Miyagi prefecture, Japan. School-aged athletes (mostly aged 6-15 years) belong to the association. The organization is in possession of the mailing addresses of registered coaches. A self-reported questionnaire and informed consent forms were mailed to all registered coaches in October 2014. A total of 6,356 coaches were members of the associa-

tion and 1,523 provided written informed consent and responded to the questionnaire by the end of December 2014 (response rate was 24.0%). Participants with missing data were excluded from the analysis ($n = 240$). A final sample of 1,283 coaches were included in this study (Fig. 1). The study protocol was reviewed and approved by the Ethics Committee on Research of Human Subjects at Tohoku University Graduate School of Medicine (approval number: 2013-1-564).

Measures

Verbal or physical abuse towards athletes was assessed through the following questions: "Have you ever yelled at young athletes?" and "Have you ever hit or kicked young athletes?" respectively. The response options were on a four-point scale: "yes, frequently," "yes, occasionally," "yes, in the past, but not now," and "never." These responses were further categorized into 2 groups, absence or presence, according to the use of either type of abuse at the time of this survey. The absence group had responses of either "yes, in the past, but not now," or "never," to either type of abuse, while the presence group had responses of either, "yes, frequently," or "yes, occasionally," to either type of abuse.

Sex, age, educational attainment, smoking habits, experience of playing the same sport that one is coaching, coaching experience in years, the number of athletes on participating coaches' team, team competition levels, satisfaction with athletes' attitude towards practice, previous experiences of verbal and physical abuse by own coaches, and acceptability for verbal or physical abuse were assessed by a self-reported questionnaire. Pre-coded questions included those on educational attainment (junior high school, high school, technical school, junior college, 4-year college, and graduate school), and team competition levels (recreation, local competition, prefectural competition, Tohoku distinct competition, and national competition). The coaches' own experiences of verbal and physical abuse were assessed through the following questions: "Were you yelled at by former coaches?" and "Were you hit or kicked by former coaches?" respectively. The response options were "yes," "no," and "I do not remember." Acceptability for verbal or physical abuse was assessed using the following questions: "Do you think that verbal or physical abuse is necessary to improve the ability of young athletes?". The response options were "yes," "no," and "I do not know." Satisfaction with athletes' attitude towards sports activities was assessed using the following questions: "How satisfied are you with athletes' attitude towards sports activities?" The response alternatives were "very satisfied," "satisfied," "unsatisfied," and "very unsatisfied."

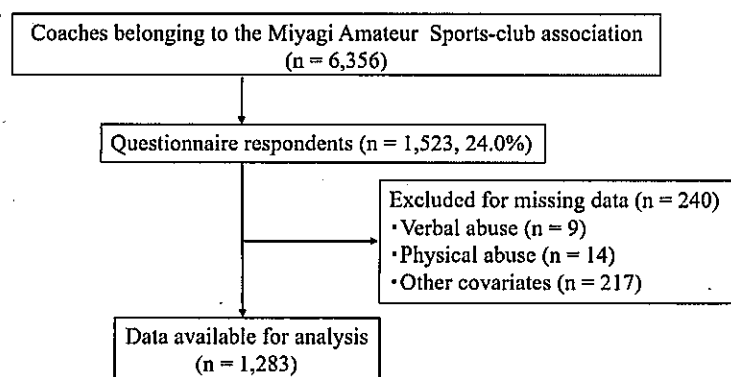


Fig. 1. Flow chart of this study.

The following continuous variables were divided into categories based on the distribution: age was categorized into 3 groups (< 40, 40 to < 50, and \geq 50 years old); experience of coaching in years into 3 groups (< 4, 4 to < 10, and \geq 10 years); the number of athletes in the team into 2 groups (< 20 and \geq 20). The following categorical variables were divided into 2 groups according to clinical significance: educational attainment (college or higher, and high school or less); team competition levels (low: "recreation" or "local competition"; high: "prefectural competition" or higher); experience of verbal and physical abuse by participants' former coaches (absence: "no" or "I do not remember"; presence: "yes"); acceptability for verbal or physical abuse (absence: "no" or "I do not know"; presence: "yes"); and satisfaction with athletes' attitude towards sports activities (satisfied: "very satisfied" or "satisfied"; unsatisfied: "unsatisfied" or "very unsatisfied").

Statistical analysis

Data were presented as numbers and percentages (%). Multiple logistic regression models were used to evaluate the factors related to the verbal or physical abuse of athletes. The odds ratio (OR) and 95% confidence interval (95% CI) for the use of verbal or physical

abuse on young athletes were calculated. Variables considered in the models were sex (male or female), age (< 40, 40 to < 50, or \geq 50 years), educational attainment (college or higher, or high school or less), smoking habits (non-smoker or smoker), experience of playing the same sport (absence or presence), team competition levels (low or high), coaching experience in years (< 4, 4 to < 10, or \geq 10 years), number of athletes in the team (< 20 or \geq 20), satisfaction with athletes' attitude towards sports activities (satisfied or unsatisfied), acceptability for verbal or physical abuse (absence or presence), and experiences of verbal and physical abuse by former coaches (absence or presence). Considering the possible effect of reporting bias for the "experience of verbal and physical abuse by former coaches" category, sensitivity analysis was conducted by dividing "I do not remember" into "yes."

All statistical analyses were performed with SPSS version 24.0 (SPSS Japan Inc., Tokyo, Japan). P value of < 0.05 was considered statistically significant.

Results

Participants' baseline characteristics are shown in Table 1. The prevalence of verbal and physical abuse on

Table 1. Participants' baseline characteristics.

Variables	Categories	N (%)
Sex	Female	148 (11.5)
	Male	1,135 (88.5)
Age (years)	< 40	370 (28.8)
	40 to < 50	497 (38.7)
	\geq 50	416 (32.4)
Educational attainment	College or more	587 (45.8)
	High school or less	696 (54.2)
Smoking habits	Non-smoker	770 (60.0)
	Smoker	513 (40.0)
Experience of playing the same sports	Absence	196 (15.3)
	Presence	1,087 (84.7)
Experience of verbal abuse by former coaches	Absence	415 (32.3)
	Presence	868 (67.7)
Experience of physical abuse by former coaches	Absence	751 (58.5)
	Presence	532 (41.5)
Acceptability for verbal or physical abuse	Absence	971 (75.7)
	Presence	312 (24.3)
Years of coaching	< 4	400 (31.2)
	4 to < 10	335 (26.1)
	\geq 10	548 (42.7)
Number of athletes in the team	< 20	666 (51.9)
	\geq 20	617 (48.1)
Team competition level	Low	580 (45.2)
	High	703 (54.8)
Satisfaction with athletes' attitude towards sports activities	Satisfied	559 (43.6)
	Unsatisfied	724 (56.4)

young athletes by coaches was 64.7% (n = 830) and 6.2% (n = 79), respectively.

Table 2 shows the association between verbal abuse towards athletes and other variables. Educational attainment was significantly associated with the use of verbal abuse on athletes. Using "college or higher" as a reference, the adjusted OR (95% CI) was 1.32 (1.03-1.69) for "high school or less." Experiences of verbal abuse by participants' former coaches and acceptability for verbal or physical abuse were significantly associated with the use of verbal abuse on athletes. Using "absence" as a reference, the adjusted ORs (95% CI) for "presence" in this regard were

1.85 (1.37-2.50) and 2.53 (1.82-3.52), respectively. The sensitivity analysis of experiences of verbal abuse by participants' former coaches also showed a significant result. The adjusted OR (95% CI) was 1.61 (1.26-2.06). Satisfaction with athletes' attitude towards sports activities was significantly associated with the use of verbal abuse on athletes. Using "satisfied" as a reference, the adjusted OR (95% CI) was 1.62 (1.26-2.07) for "unsatisfied."

Table 3 shows the association between the physical abuse towards athletes and other variables. The experience of physical abuse by participants' former coaches and acceptability for verbal or physical abuse were significantly

Table 2. Adjusted Odds ratios (OR) and 95% confidence intervals (95% CI) for coaches' verbal abuse.

Variables	Categories	Verbal abuse		Adjusted OR (95% CI)	P value
		n	Presence, n (%)		
Sex	Female	148	81 (54.7)	1.00	
	Male	1,135	749 (66.0)	1.44 (0.98-2.10)	0.062
Age (years)	< 40	370	254 (68.6)	1.00	
	40 to < 50	497	333 (67.0)	0.95 (0.70-1.30)	0.738
	≥ 50	416	243 (58.4)	0.77(0.52-1.15)	0.2
Educational attainment	College or more	587	352 (60.0)	1.00	
	High school or less	696	478 (68.7)	1.32 (1.03-1.69)	0.026
Smoking habits	Non-smoker	770	470 (61.0)	1.00	
	Smoker	513	360 (70.2)	1.26 (0.97-1.64)	0.081
Experience of playing the same sports	Absence	196	116 (59.2)	1.00	
	Presence	1,087	714 (65.7)	1.32 (0.94-1.86)	0.105
Experience of verbal abuse by former coaches	Absence	415	205 (49.4)	1.00	
	Presence	868	625 (72.0)	1.85 (1.37-2.50)	< 0.001
Experience of physical abuse by former coaches	Absence	751	434 (57.8)	1.00	
	Presence	532	396 (74.4)	1.30 (0.96-1.74)	0.089
Acceptability for verbal or physical abuse	Absence	971	574 (59.1)	1.00	
	Presence	312	256 (82.1)	2.53 (1.82-3.52)	< 0.001
Years of coaching	< 4	400	258 (64.5)	1.00	
	4 to < 10	335	229 (68.4)	1.34 (0.95-1.87)	0.091
	≥ 10	548	343 (62.6)	1.18 (0.82-1.70)	0.372
Number of athletes in the team	< 20	666	419 (62.9)	1.00	
	≥ 20	617	411 (66.6)	1.17 (0.92-1.51)	0.208
Team competition levels	Low	580	364 (62.8)	1.00	
	High	703	466 (66.3)	1.27 (0.98-1.65)	0.066
Satisfaction with athletes' attitude towards sports activities	Satisfied	559	327 (58.5)	1.00	
	Unsatisfied	724	503 (69.5)	1.62 (1.26-2.07)	< 0.001

Table 3. Adjusted odds ratios (OR) and 95% confidence intervals (95% CI) for coaches' physical abuse.

Variables	Categories	Physical abuse		Adjusted OR (95% CI)	P value
		n	Presence, n (%)		
Sex	Female	148	9 (6.1)	1.00	0.991
	Male	1,135	70 (6.2)	1.00 (0.47-2.15)	
Age (years old)	< 40	370	26 (7.0)	1.00	0.558
	40 to < 50	497	31 (6.2)	0.84 (0.47-1.51)	
	≥ 50	416	22 (5.3)	0.58 (0.28-1.21)	
Educational attainment	College or more	587	29 (4.9)	1.00	0.14
	High school or less	696	50 (7.2)	1.45 (0.88-2.39)	
Smoking habits	Non-smoker	770	48 (6.2)	1.00	0.407
	Smoker	513	31 (6.0)	0.81 (0.49-1.34)	
Experience of playing the same sports	Absence	196	11 (5.6)	1.00	0.874
	Presence	1,087	68 (6.3)	0.95 (0.47-1.89)	
Experience of verbal abuse by former coaches	Absence	415	15 (3.6)	1.00	0.591
	Presence	868	64 (7.4)	0.82 (0.40-1.70)	
Experience of physical abuse by former coaches	Absence	751	26 (3.5)	1.00	< 0.001
	Presence	532	53 (10.0)	2.71 (1.50-4.92)	
Acceptability for verbal or physical abuse	Absence	971	34 (3.5)	1.00	< 0.001
	Presence	312	45 (14.4)	3.89 (2.39-6.33)	
Years of coaching	< 4	400	17 (4.3)	1.00	0.12
	4 to < 10	335	22 (6.6)	1.72 (0.87-3.42)	
	≥ 10	548	40 (7.3)	2.45 (1.20-4.98)	
Number of athletes in the team	< 20	666	41 (6.2)	1.00	0.743
	≥ 20	617	38 (6.2)	0.92 (0.57-1.49)	
Team competition level	Low	580	27 (4.7)	1.00	0.092
	High	703	52 (7.4)	1.55 (0.93-2.60)	
Satisfaction with athletes' attitude towards sports activities	Satisfied	559	31 (5.5)	1.00	0.233
	Unsatisfied	724	48 (6.6)	1.35 (0.82-2.21)	

associated with the use of physical abuse on athletes. Using "absence" as a reference, the adjusted ORs (95% CI) for "presence" were 2.71 (1.50-4.92) and 3.89 (2.39-6.33), respectively. The sensitivity analysis of experience of physical abuse by participants' former coaches also showed a significant result. The adjusted OR (95% CI) was 3.37 (1.77-6.42). Coaching experience in years was significantly associated with the use of physical abuse on athletes. Using "< 4" as a reference, the adjusted OR (95% CI) were 1.72 (0.87-3.42) for "4 to < 10" and 2.45 (1.20-4.98) for "≥ 10."

Discussion

The present study revealed the characteristics of coaches who commit verbal or physical abuse on young athletes. Educational attainment, experiences of verbal abuse by their former coaches, acceptability for verbal or physical abuse, and dissatisfaction with athletes' attitude towards sports activities were significantly associated with the use of verbal abuse on athletes. Moreover, experiences of physical abuse by their former coaches, the acceptability for verbal or physical abuse, and longer coaching experience in years were significantly associated with the use of

physical abuse on athletes.

The effects of young athletes' sporting experiences differ according to age (Chan et al. 2012), and their coaches play a pivotal role in creating nurturing environment (Ommundsen et al. 2006). Various behaviors of coaches affect young athletes both positively or negatively (Carlsson and Lundqvist 2016). Coaches' positive behaviors towards athletes can elicit enjoyment and motivation, and induce aspiration towards challenging and mastery experiences (Mollerlokken et al. 2017). Such an environment can contribute to young athletes' physical and mental growth, and subjective well-being (Felton and Jowett 2013). On the other hand, coaches' negative behaviors can induce stress and anxiety in young athletes, resulting in dissatisfaction, burnout, and dropping out from sports activities (Mollerlokken et al. 2017). Verbal or physical abuse is the negative aspect of coaching (Mountjoy et al. 2016).

A few reports have shown the prevalence of verbal abuse of children and adolescents in sports activities, including abuse by their peers and coaches (Shields et al. 2005; Stafford et al. 2015; Vertommen et al. 2017). It has been reported that 45% of young athletes have experiences of verbal abuse by their coaches (Shields et al. 2005). However, to our knowledge, this prevalence has not been reported on, using interviews with coaches. Approximately 65% of the coaches in our study reported that they had used verbal abuse on young athletes. The frequency was comparable with the previous research that was conducted in a similar manner with young athletes (Shields et al. 2005). Further, 67.7% of the coaches had experienced verbal abuse by their former coaches, as shown by baseline characteristics. The experience of verbal abuse from former coaches and the acceptability for verbal or physical abuse were significantly associated with the use of verbal abuse on young athletes. These results presumably mean that verbal abuse is considered a common coaching style, and that many coaches have experienced and accepted it as such in Japan. Further, dissatisfaction with athletes' attitude toward sports activities was significantly associated with the use of verbal abuse in this context; verbal abuse was presumably used as a method to encourage athletes to attain better results. Gervis and Dunn (2004) reported that verbal abuse was used as a habitual coaching tool for elite child athletes. Getting accustomed to verbal abuse justifies the usage of it, minimizes the negative perception of it, and makes it socially acceptable (Swigonski et al. 2014). Further, in our study, lower educational attainment was associated with the use of verbal abuse on young athletes. The coach-athlete relationship is assumed to be different between the grades of school. Coaches with an advanced education might have experienced less abusive sport environments and avoided verbal abuse.

There are a few reports on the prevalence of the physical abuse of children and adolescents in sports activities (Stafford et al. 2013; Vertommen et al. 2016, 2017). Stafford et al. (2013) assessed it using an online survey of

young people (aged 18-22 years) and reported that 55% of the participants had experienced physical abuse by their coaches or teammates at least once as a child. Using an online survey of adults, Vertommen et al. (2016) reported that 11% of the participants had experienced physical violence when they were young (before age 18), and that 43% of this violence was committed by their coaches. The prevalence of the physical abuse of young athletes in this study, as perpetuated by their coaches, was 6.2%, which could be lower than the results of previous reports because this was the prevalence of physical abuse at the time of this survey (Stafford et al. 2013; Vertommen et al. 2016). Further, 41.5% of the coaches had experienced physical abuse by their former coaches, according to the baseline characteristics. Experiences of physical abuse by their former coaches and acceptability for verbal or physical abuse were significantly associated with the use of physical abuse on young athletes. Although many coaches had experienced physical abuse, most presumably considered it negative behavior towards athletes and recognized that it should be avoided. Nonetheless, it has remained an element of coaching. In addition, longer coaching experience was significantly associated with a higher prevalence of physical abuse of athletes. Physical abuse is committed as a means of control or punishment (Stafford et al. 2013). Coaches commit physical abuse to influence outcomes and for winning, which is highly valued in sports activities (Stirling and Kerr 2008). It is assumed that some coaches who have accepted and subscribe to this coaching style, and have longer coaching experience ultimately become familiar with such a controlling style.

The "win/lose" nature is thought to be related to a tacit acceptance or normalization of many types of violence in sports activities (Mountjoy et al. 2016). Coaches desire to achieve wins and their behavior ranges from positive to negative (Swigonski et al. 2014). They are presumably unaware of their negative behavior and overestimate the positive nature of their behavior in relation to athletes (Carlsson and Lundqvist 2016). Although they do not intend to harm athletes, coaches' abusive behavior results in detrimental, long-term effects on young athletes (Stirling and Kerr 2008). The violence makes the athletes feel worthless, less confident, depressed, fearful, and angry (Gervis and Dunn 2004). Furthermore, coaches have an opportunity to function as role models for the young athletes and negative coaching behavior may lead to violence between the young athletes (Stafford et al. 2013). Coaches should know that all forms of harassment and abuse violate athletes' human rights (Mountjoy et al. 2016). Koester (2000) have reported that most coaches of youth teams are either parents or other interested persons without structured, formal training in coaching and they do not have proper knowledge regarding instruction in sports activities. Coaching education and mentoring, which are aimed at developing competencies, should be a priority of youth sport organizations (Bergeron et al. 2015). The results of

this study have shown that coaches committing verbal or physical abuse had typically experienced abuse from their former coaches too, and adopted a similar style. Breaking the negative cycle of abuse is necessary to prevent and eradicate the abuse of young athletes.

Our study had several limitations. First, the results of this study were based on a self-reported questionnaire answered by participating coaches. The test-retest reliability of this questionnaire was not confirmed, which may have negative implication for the accuracy of the results. Second, the questionnaire and documented informed consent were mailed and the response rate was relatively low. The respondents might have had higher awareness, compared to non-responders, which lowered the prevalence of abuse among the former. Third, coaches' experiences of abuse may have been subject to recall bias. Further, some coaches answered "I do not remember" and we categorized this as "absence" of the phenomenon being assessed. This could lead to either over-reporting or under-reporting. For this reason, we conducted the sensitivity analysis and the result was almost the same. Fourth, we did not separately assess the acceptability for abuse in terms of "verbal" and "physical" abuse. Some coaches might have found only one of these behaviors acceptable, and this might have increased reports of acceptability for abuse. Further, because this study had a cross-sectional design, reverse causality could not be ruled out, which meant that abusive coaches would accept abuse. Finally, this study was conducted on coaches of youth team in Japan. Sports environment of youth assumed to be different among countries, and it was unclear whether the results of this study was generalized in the world. Further, there are no reports in English on abuse of Japanese athletes. Therefore, it is difficult to discuss this topic by quoting reports from Japan.

In conclusion, this study has shown that the coaches who commit verbal abuse are characterized by lower educational attainment, experiences of verbal abuse by their former coaches, acceptability for verbal or physical abuse, and dissatisfaction with athletes' attitude towards sports activities. Further, coaches who commit physical abuse are characterized by having experienced physical abuse by their former coaches, acceptability for verbal or physical abuse, and longer coaching experience. Breaking these negative chains of verbal and physical abuse is necessary to prevent and eradicate the abuse of young athletes.

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Conflict of Interest

The authors declare no conflict of interest.

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