

Available online at www.sciencedirect.com



**Body Image** 

Body Image 4 (2007) 361-371

www.elsevier.com/locate/bodyimage

# The pursuit of muscularity among adolescent boys in Fiji and Tonga

Lina A. Ricciardelli<sup>a,\*</sup>, Marita P. McCabe<sup>a</sup>, Helen Mavoa<sup>a</sup>, Kalesita Fotu<sup>b</sup>, Ramneek Goundar<sup>b</sup>, Jimaima Schultz<sup>b</sup>, Gade Waqa<sup>b</sup>, Boyd A. Swinburn<sup>b</sup>

<sup>a</sup> School of Psychology, Deakin University, 221 Burwood Highway, Burwood, Victoria 3125, Australia
<sup>b</sup> School of Exercise Health and Nutrition, Deakin University, Melbourne, Australia
Received 2 March 2007; received in revised form 8 July 2007; accepted 9 July 2007

### Abstract

The desire for muscularity is tied to Western views of the male gender role, which prescribe that men be strong, physically fit and athletically successful. Although, these ideals have been primarily studied among Western adolescent boys, there is emerging evidence that the same ideals are valued and promoted among males from the Pacific Islands. The aim of the present study was to examine body image concerns associated with muscularity and the reasons for these concerns among Fijian and Tongan adolescent boys. Semi-structured interviews were conducted with 24 Indigenous Fijian, 24 Indo-Fijian, and 24 Tongan boys aged between 13 and 20 years. A thematic analysis of boys' narratives showed that the pursuit of muscularity was a dominant theme for many boys. Boys' reasons for pursing muscularity included the attainment of strength and fitness, sporting performance, physical work, dominance, and health. These findings are examined in relation to previous research with Western adolescent boys. © 2007 Elsevier Ltd. All rights reserved.

Keywords: Muscularity; Adolescent boys; Fiji; Tonga; Strength and fitness; Sporting performance

### Introduction

Recent studies have shown that many Western adolescent males are dissatisfied with their bodies and are engaging in a range of body change strategies to improve their body image. These include both strategies to lose weight and strategies to increase muscles (Cafri et al., 2005; Field et al., 2005; Jones & Crawford, 2005; Ricciardelli & McCabe, 2004). Both types of strategies are frequently adopted simultaneously or alternatively, in order to achieve what Leon, Fulkerson, Perry, Keel, and Klump (1999) coined "... the masculine ideal of lean muscularity" (p. 194).

\* Corresponding author. E-mail address: lina@deakin.edu.au (L.A. Ricciardelli).

Many Western adolescent males also have dissatisfaction with specific aspects of their bodies which include: muscle size, height, strength, shoulders, biceps, abs, and chests (Grogan & Richards, 2002; Hargreaves & Tiggemann, 2006; Huenemann, Shapiro, Hampton, & Mitchell, 1966; McCabe & Ricciardelli, 2001). Dissatisfaction with each of these body parts is closely related to messages, transmitted by the media, family and peers, which promote the attainment of large and muscular bodies for males (Jones & Crawford, 2005, 2006; McCabe & Ricciardelli, 2005; Smolak, Murnen, & Thompson, 2005). These messages are also closely tied to Western cultural views of masculinity and the masculine gender role, which prescribe that men be powerful, strong and efficacious (Gray & Ginsberg, 2007; Mahalik et al., 2003; McCreary, Saucier, &

<sup>1740-1445/\$ –</sup> see front matter  $\odot$  2007 Elsevier Ltd. All rights reserved. doi:10.1016/j.bodyim.2007.07.001

Courtenay, 2005; Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986).

However, the pursuit of muscularity may not be confined to Western society. It may be prevalent among males in all cultures and be also promoted by sociobiological motives (Gray & Ginsberg, 2007; Lipinski & Pope, 2002). From an evolutionary perspective, a high level of importance has been placed on men's physical attributes associated with muscularity, which include size, strength, speed and physical agility, as these are advantageous for performing many male-dominated behaviors such as hunting, intensive agriculture, metalworking and other physical work, and warfare (Weisfeld & Billings, 1988; Wood & Eagly, 2002). In addition, men with muscular characteristics are considered more physically and sexually attractive (Swami & Tovée, 2005).

Although few studies have examined the pursuit of muscularity among non-Western cultural groups (for reviews see Gray & Ginsberg, 2007; Ricciardelli, McCabe, Williams, & Thompson, 2007), Williams and Best (1990) have shown that two physical traits associated with muscularity, "strength" and "robustness" are highly valued across countries in both Asia and Africa. There is also evidence that the pursuit of muscularity is highly valued and promoted among adults in Pacific Islands. In one study, Lipinski and Pope (2002) found that adult Samoan males had a strong preference for the muscular ideal which was similar to that found among Western males in the United States and Europe. Two other studies that have examined body size preferences among males in Pacific Islands, have shown that both Polynesian adult males from the Cook Islands (Craig, Swinburn, Matenga-Smith, Matangi, & Vaughan, 1996) and Tongan adult males (Craig, Halavatau, Comino, & Caterson, 1999) preferred a larger body size than Whites living in Australia. Similarly, another study showed that Maori and other Pacific Islanders (Metcalf, Scragg, Willoughby, Finau, & Tipene-Leach, 2000) living in New Zealand were more likely than Whites to perceive themselves as being the right weight even though they had a higher body mass index (BMI). Together these findings highlight the preference for a large and robust body size that has been traditionally endorsed by many Pacific Islanders (Becker, Burwell, Gilman, Herzog, & Hamburg, 2002). However, no study was located which has specifically examined the pursuit of the muscular ideal, body size preferences or other body image concerns among adolescents from Pacific Islands. It is important that Pacific adolescent males are also studied as there is extensive research from studies from Western studies,

which show that many of the concerns associated with muscularity develop during this period (Ricciardelli & McCabe, 2007).

In addition, we need to learn whether males in other cultures also pursue muscularity for the same reasons as those identified among Western males. One of the main reasons identified by Western boys for placing a great deal of emphasis on muscularity is to improve their performance in sport (Ricciardelli, McCabe, & Ridge, 2006). The sporting context is one of the main forums that Western males have for demonstrating the various aspects of mascularity. These include athletic strength and superiority, competitiveness, toughness, endurance, leadership, status, power, and authority (Connell, 1995; Drummond, 2002; McCreary et al., 2005; Smolak & Stein, 2006; Weisfeld & Billings, 1988).

In our qualitative work with European Australian males we specifically found that the majority of adolescent boys were reluctant to focus on their body but through their talk about sport, the boys openly discussed what they liked and did not like about their body (Ricciardelli et al., 2006). In addition, we found that what males liked about their bodies and the aspects they wanted to improve were synonymous with the attributes associated with being successful at sport. These included functional aspects of the body such as overall size, height, speed, strength, fitness, and endurance. In another recent study, Smolak and Stein (2006) also found that male physical attributes associated with athleticism and physical superiority were among the main predictors of the drive for muscularity among adolescent boys from the United States.

In the present study we examined whether the sporting context was also a useful medium for understanding any pursuit of muscularity and other body image concerns among adolescent males from Fiji and Tonga. Given that there is a strong focus on sport in both Fijian and Tongan cultures, we expected that sport would be used by these boys to discuss some of their body image concerns. Moreover, we wanted to assess whether there was any evidence that boys from Pacific Islands pursue muscularity also for the advantages of being larger and in order to compete with other males. In addition, we wanted to examine whether adolescents from these Pacific cultures identified other reasons for the pursuit of muscularity and other ways of demonstrating their size and strength that are more specific to their cultural traditions. Traditionally Pacific cultures place a great importance on a large body size as this represents high status, power, authority and wealth (Becker et al., 2002).

The present study was designed to examine the pursuit of the muscular ideal and the reasons for pursuing this ideal among Indigenous Fijians, Indo-Fijians and Tongans. A qualitative approach using semi-structured interviews was used. Firstly, our understanding of the pursuit of muscularity among boys is still in its infancy as there has been little theoretical or empirical work, which has examined the development of these body image concerns among adolescent boys from non-Western cultures. This approach was also seen as invaluable as boys' answers could be probed in more depth than would be possible in a structured survey. Specifically, the use of qualitative research designs allows for issues that are specifically relevant for the respondents to emerge from the data (Smith, 2003).

### Method

# **Participants**

The participants were 24 Indigenous Fijian<sup>1</sup> (M = 16.27 years, SD = 1.88), 24 Indo-Fijian (M = 15.67 years, SD = 1.52), and 24 Tongan (M = 16.63 years, SD = 1.81) boys aged between 13 and 20 years. All participants were volunteers who were recruited from seven schools in Fiji, and three districts in Tonga.

### Materials

A semi-structured interview guide was developed by the first three authors for the larger project associated with the present study (Swinburn, Scragg, Pryor, McCabe, Carer, & de Courten, in press). The interview questions were finalized after an extensive review of the literature, discussions with the local research team in each country, and after conducting preliminary focus group interviews with adolescents in both Fiji and Tonga. In addition, there was extensive consultation between the third author and the research team in Fiji and Tonga, in order to ensure that the questions were culturally sensitive and comprehensively covered the topics being studied.

The interview schedule included questions that assessed attitudes, behaviors and future expectations associated with food and eating, physical activity, and body image. The focus for the present paper were the body image questions which covered boys' satisfaction with and concerns about their body size, weight, body shape, and muscles. Boys were also asked about any body change strategies that they were currently using. had used in the last 12 months or planned to use in the future. Example of the main questions included: "What do you think is the ideal body size/weight/body shape/ muscle bulk/size for boys?"; "Are you satisfied with vour ideal body size/weight/body shape/muscles?: "Which of the following things about your body are most important to you? (body weight, body size, body shape, muscles)"; "Would it worry you if you were heavier/bigger than you are now?"; "Would it worry you if you were lighter/smaller than you are now?"; "What are you currently doing to change your body weight/size/muscles?"; "What have you done in the last 12 months/plan to do in the future?" Where appropriate the interviewer followed with more direct probing questions ("Why/why not?").

### Procedure

Approval to conduct the study was obtained from the Deakin University Human Research Ethics Committee, the Fiji National Ethics Committee, and the Tongan Ministry of Health. Students from all grade levels in secondary schools were invited to take part, and teachers worked closely with the local researchers to ensure we had a representative group of ages. All interested students were provided with a brief information package outlining the nature of the study and included the consent forms that needed to be completed by participants and their parent/guardian. They were assured that their answers would be kept confidential.

All boys were interviewed by a male interviewer<sup>2</sup> from the same cultural group who was fluent in the participant's first language. Participants were interviewed individually at their school, church or youth group. These different venues were used to best fit in with the participants' availability. Each interview took about an hour. Interviews were tape-recorded, transcribed and translated into English, and double-checked for accuracy.

<sup>&</sup>lt;sup>1</sup> The Republic of Fiji consists of approximately 865,000 people. Indigenous Fijians comprise approximately 51% of the population and Indian Fijians account for 44%. The remaining are of European or Chinese descent or from other Pacific Islands.

<sup>&</sup>lt;sup>2</sup> The male interviewers were local research assistants in their twenties and thirties who had experience working with young people in their owe cultures, either as researchers and/or as health professionals. They were trained in interviewing methods and supervised by the third author. The research assistant in Tonga was also supervised by fourth author who was based in Tonga. In addition, the Indigenous Fijian and the Indo-Fijian researchers were supervised by the sixth author who was based in Fiji.

# Analyses

The analyses involved three stages. In the first stage the transcripts were coded into N6<sup>3</sup> software according to text/sections that related to a specific idea and interview questions. N6 was then used to locate all text where boys talked about their body and the focus on muscularity. In the second stage, the first three authors<sup>4</sup> used thematic analysis to develop the themes and link to past research (Layder, 1993). In the third stage, the middle four authors<sup>5</sup>, who were local researchers from three cultural groups (Indigenous Fijian (2), Indo-Fijian, and Tongan) independently reviewed nine transcripts from their respective cultural group and also identified the main themes pertaining to boys' body image and the pursuit of muscularity. This stage revealed no additional themes from those already identified in stage 2. However, the local researchers were able to provide their personal understanding and cultural knowledge in order to further shape and interpret the themes (Layder, 1993).

### Results

The pursuit of muscularity and the pursuit of specific body change strategies to achieve this ideal were main themes among many of the boys' narratives and across all three cultural groups. In addition, boys primarily raised functional reasons such as fitness and sporting performance. These results are illustrated with excerpts<sup>6</sup> that include participants' ethnicity and participant number (FJ = Indigenous Fijian, INFJ = Indo-Fijian and TON = Tongan), and their age in parentheses. The endorsement of each of the main themes according to cultural group is summarized in Table 1.

#### Table 1

Number of participants who endorsed each theme across the three cultural groups (n = 24 per group)

Main themes	Indigenous Fijians	Indo-Fijians	Tongans
The pursuit of muscularity	21	16	16
Body change strategies	24	22	22
utilized to pursue muscularity			
Strength and fitness	19	17	2
Focus on sports	15	4	13
Physical work	5	0	7
Health reasons	12	11	18
Cosmetic reasons	9	9	9

# The pursuit of muscularity

The pursuit of muscularity was a dominant theme raised by boys in each of the three cultural groups. Boys frequently desired an ideal body image, which was characterized by muscularity. This included larger muscles, overall body strength, and a larger body size.

Are you satisfied with you muscle size now? No ... Because my muscles are not that big. (FJ40 age 14) I want to be big. (FJ30 age 16)

No I'd like to be a bit bigger. And would it worry you if you were smaller or lighter than what you are right now? Yes I'll work on that...I don't want to be small. (INFJ36 age 16)

I think I am right size and in good shape. Good shape and fit. ....I want strong and bigger muscles. (INFJ30 age 17)

No, I need to be much stronger (TON26 age 14) I am tall and I'm not too heavy. I wish I had a bigger body size. (TON41 age 18)

Although the majority of the boys talked about their overall ideal body strength and size, other boys were also more specific in terms of their body image concerns, and often referred to specific body parts. However, the focus across the three cultural groups was again primarily on body parts that would enhance one's muscularity. Boys talked about wanting stronger/more muscular arms, toned muscles, broader shoulders, chest, biceps and abs, and upper body strength.

Upper body muscles. Arm muscles ... I want to make it strong (FJ38 age 14)

I just want to make my arms strong. (FJ26 age 17) My biceps and chest. (INFJ28 age 13)

I would like to have big muscles, have more packs. Six packs. ... Biceps and bigger arms. (INFJ38 age 17)

 $<sup>^{3}</sup>$  N6 is a software program designed to assist in managing and analyzing textual data.

<sup>&</sup>lt;sup>4</sup> Lina Ricciardelli and Marita McCabe are research psychologists who have been working in the field of body image for over 15 years and have conducted previous qualitative work with Australian boys (McCabe & Ricciardelli, 2001; McCabe, Ricciardelli, & Ridge, 2006; Ricciardelli, McCabe, & Banfield, 2000; Ricciardelli et al., 2006). The first author has also completed three additional qualitative studies in the field of substance abuse. The second author has conducted extensive qualitative research in the field of chronic illness. The third author is a social researcher who has extensive experience in conducting and teaching qualitative research methods.

<sup>&</sup>lt;sup>5</sup> The middle four authors, who conducted the third stage of the data analysis, all completed a 3-day training course in qualitative methods run by the third author.

<sup>&</sup>lt;sup>6</sup> We ensured that we included as many participants' responses as possible, and these were selected to best illustrate the main themes. Additional quotes are available from the authors.

Muscles. I'd like to tone them up especially my stomach and my chest. (TON40 age 15)

... I think we should have broad shoulder build and a little waist and big feet (TON46 age 18)

All of the Indo-Fijians were aware that on average they tended to have smaller body frames, were more slender and less muscular than Indigenous Fijians. Many of the Indigenous Fijians were also aware of this.<sup>7</sup> These mutual views are highlighted by the following quotes.

Compared to Fijians do you have the same physique as well? No. How are they different? They are more muscular. ... They are more built. ... Indians are more skinny. (INFJ27 age 15)

Indians are a bit slim and Fijians have better body shape and are more built. Some are fat, some are skinny. (INFJ25 age 17)

[Fijians] They are more muscular. ... They are more built. ... They are more fit. ... Indians are more skinny. (FJ27 age 15)

Sometimes Indians are not strong enough and that's why they are not physically active. (FJ34 age 18)

# Body change strategies utilized to pursue muscularity

Across the three cultural groups boys reported using a range of body change strategies to pursue muscularity and many worked at these quite rigorously. More specifically, they included changes in eating patterns to consume more food, less food or more healthy foods, and different kinds of exercise with a focus on building muscles. The exercise included weight lifting, going to the gym, running, and playing sports. Some of the boys also mentioned using a combination of eating more and then exercising excessively, which may be a more effective way of achieving muscularity.

Eat the right kind of food and exercise every day. ... Healthy food. Vegetables and fish. ... Run, lifting. (FJ37 age 13)

I have been training. ... I run from home in the morning. ... Because I don't want to be fat. ... I train. I lift weights. ... I want to make my body strong. (FJ26 age 17)

I am like Batista .... I wana be like him, so I am working on him ... doing weight lifting and stuffs. Eat more ... If you will not eat, you will not be strong enough. (INFJ29 age 13)

Actually I have increased my eating. I do more eating. ... I'm eating more vegetables to keep my weight right and started to eat more than before. ... I usually pump up the weights three times a day. Yes I'm doing bench press to get strong chest. ... Actually am doing right now, stomach crunch and doing all sorts. I've read magazines about that. ... How to get a six pack in a month. (INFJ30 age 17)

Just doing weights and eating a lot. (TON40 age 15) I used to do weights but more towards doing other exercises. But now, I'm on a program. In the morning I go for a run along the roads and then in the evenings, I do weights for 1 1/2 h and then do punching bag. (TON42 age 18)

# Reasons for pursuing muscularity

The main reasons boys provided for desiring a more muscular body image or improving their body image were functional ones and/or associated with masculine ideals. These included the attainment of strength and fitness, sporting performance, physical work, dominance, and health. A less frequently mentioned reason for improving boys' body image was to look good.

### Strength and fitness

The pursuit of muscularity to display strength and fitness were seen as important outcomes in their own right and often were not justified further. This was more notable for the two groups of Fijians. The boys' focus on being strong and fit has already been noted in many of the above excerpts across the three cultural groups. However, the following quotes further highlight boys' preoccupation with strength and/or fitness among both Indigenous Fijians and Indo-Fijians.

Why do you want to train the upper body muscles and lower body muscles? For fitness. ... I use to play soccer and play with other schools and do road run. ... To remain fit. (FJ40 age 14)

So that I can be fit and strong. (FJ29 age 16)

... Because I want to be more masculine and fit (INFJ32 age 16)

To have more power (INFJ45 age 16)

# Sports

The majority of Indigenous Fijians and Tongan boys discussed aspects of their body image that they would like to improve with reference to sport. This theme was also found among the narratives of the Indo-Fijians but it was less prevalent. In particular the boys highlighted

<sup>&</sup>lt;sup>7</sup> Both Indigenous Fijians and Indo-Fijians were specifically asked how their body builds differed from one another.

the attributes of strength, endurance, speed, size, and fitness and explained that they would like to improve these traits specifically for the purpose of improving their sporting performance.

Which muscle group are you working on now? The upper body muscles. Why the upper body muscles? Muscles for playing rugby. (FJ30 age 16)

Because I want my shoulder to be strong because I play rugby so when I tackle my shoulder should be strong. ... I want to be like Satala [Fijian rugby player] for the height, size, the shape and weight of my body (FJ34 age 18)

*Ok, would it worry you if you were heavier or bigger than what you are now?* Yes. *Why?*.Because I won't be fit and would not be able to take part in sports in my school .... (INFJ48 age 13)

To get more built, so that I can play good soccer . . .. (INFJ29 age 16)

Yes, I want to be more heavy when playing. ... It is good for playing as it will be difficult to get you down. (TON33 age 16)

I need to put on more weight. When I play I have difficulty because I am too light. (TON28 age 20)

# Physical work

In addition to being important for sport, strength and body size were also seen as important for physical work, another functional domain and male-dominated behavior (Wood & Eagly, 2002). This theme was found only among the narratives of the Indigenous Fijians and the Tongans, and it was more prominent among the Tongans.

I want to increase my figure. *Why?* To help me do hard work. (FJ33 age 17)

I can't do any work if I was fatter. (FJ37 age 13)

[satisfaction with muscles] No, I would like to grow more for hoeing. (TON34 age 14)

[which aspect is more important] My body strength so that I can do heavy work. (TON45 age 17)

### Dominance

The boys in each of the groups also talked about how a larger body size gives males a competitive advantage over other males. In particular boys, talked about how their size could be used to dominate, intimidate and avoid being bullied or teased by others. This theme was more prevalent among the Indo-Fijians.

Would it worry you if you're lighter than you are now? Yes. Why? Because people can just throw me anywhere when I am lighter. (FJ36 age 14)

[if lighter or smaller] I might get bullied by other people. (INFJ29 age 16)

Yes, that will also worry me because, if I am skinny I have seen in today's world, people bully you. (INFJ39 age 17)

Because I don't want to be a bit smaller and if somehow I am in a brawl or something, I don't wana get one shot and get down.... Not exactly bulk but at least fit enough to take one punch and still be standing there.... I am not interested in showing my 6 pacs and stuff but I am interested in making my stomach a bit harder so if anyone gives a punch on it I will be prepared. (INFJ40 age 17)

I'd like to tone them up [muscles] especially my stomach and my chest, in case there's a contest. I'd be ready. (TON40 age 15)

Body appearance and body size because I like to be big in size and a good appearance to protect myself. (TON47 age 18)

# Health reasons

Another reason that many boys gave for pursuing their ideal body size and associated body change strategies was health. Some boys focused on health reasons alone whilst others saw health and physical activity, or health and looking good as closely interlinked.

I was eating too much and keep on training. *So you eat too much but you still trained*. Yes. *Why do you do that?* Because it will keep me healthy. Playing rugby. ... Because I want to be healthy. (FJ27 age 16)

Jog a lot – running in the afternoon, go to the gym and do weights. *Why do you want to do that?* So that I can be healthy. (FJ34 age 18)

.... Ok, which of these about your body are most important to you, body weight, height, tone muscles or body shape? Ummm ... my body weight and my body shape. Why is that? ... because the weight will determine how healthy you are ... and so that I can look good (INFJ29 age 16)

I would like to maintain the weight the healthy weight that a person of my age should have ... Ok, which of these about your body are most important to you? Body weight, size, shape, bulk, muscle, or height? weight. Why? ... Because, weight determines the activeness of a person and it also determines, how healthy that person will be in future. (INFJ39 age 17)

*If you become overweight, would you worry?* Yes and I would try to loose weight so that I won't become ill. (TON41 age 18)

Yes I'd be very worried if I become overweight because I'd be unhealthy and more prone to all sorts of diseases. (TON42 age 18)

### Cosmetic reasons

It was less common that boys gave cosmetic reasons for wanting to improve their body, however, as illustrated by the following extracts some of the boys did see looking good as an important motive.

Not too big or not too small just enough, just right. ... To look good. (FJ28 age 16)

It will make my body look good. (FJ44 age 17)

Ok, which of these about your body are most important to you, body weight, height, tone muscles or body shape? Body shape. Why is that? ... To look more attractive. (INFJ28 age 13)

To look more strong and attractive. (INFJ42 age 14) Just toned. Not too muscular because it is unattractive. (TON39 age 16)

A nice physique that looks gorgeous. (TON44 age 16)

# Discussion

The findings from the present study clearly show that the pursuit of muscularity was a dominant theme among boys' narratives across the Indigenous Fijians. Indo-Fijians, and Tongans. In line with increasing work from Western countries such as the U.K. (Grogan & Richards, 2002), the U.S. (Cafri, van den Berg, & Thompson, 2006; Jones & Crawford, 2005; Smolak et al., 2005), Canada (McCreary & Sasse, 2000), and Australia (McCabe & Ricciardelli, 2001; Hargreaves & Tiggemann, 2006), many of the Pacific males in the current study desired more muscularity, a stronger body and a larger body size. In addition, boys from all three cultural groups highlighted specific concerns with body parts primarily associated with the attainment of muscularity. These included wanting broader shoulders, stronger arms, and overall upper body strength. The boys in the present study also reported using comparable types of normative body change strategies to increase their muscularity as found in studies with Western adolescent boys (Cafri et al., 2005; McCabe & Ricciardelli, 2001; McCreary & Sasse, 2000; Ricciardelli et al., 2006). These included eating more or less, eating more healthy foods, and various kinds of exercise, often with a focus on weight training. However, studies are now needed to examine whether these strategies are being utilized to the same extent as boys from Western countries.

None of the boys mentioned more extreme body change methods such as the use of steroids and other supplements such as creatine, ephedrine and prohormone, which are becoming more widely used among adolescents in the U.S. (Ricciardelli & McCabe, 2007). However, several of the boys were pursuing some of the body change strategies fairly rigorously which may put them at a greater risk of using supplements to achieve quicker results if they were available and affordable (Cafri et al., 2005). It would appear that these supplements were not readily available in Fiji and Tonga. Many boys may be reluctant to disclose more sensitive information of this kind in an interview format, even if they were using these substances (Hargreaves & Tiggemann, 2006). Therefore, the findings need to be verified using less intrusive methods such as surveys. In addition, research is needed to examine how normative body change strategies may lead to more extreme behavioral problems such as the use of steroids, exercise dependence, and muscle dysmorphia (Cafri et al., 2005; Ricciardelli & McCabe, 2004; Thompson & Cafri, 2007), and the extent to which these may also be developing among males in the Pacific. Also, we need to pay more attention to the practice of overeating that many boys appear to be using to improve their muscular build. In the longer term overeating may lead to weight gain and obesity.

Consistent with previous work with Western adolescent boys, the main reasons boys gave for pursuing a muscular body were instrumental and/or highlighted primarily masculine domains (Grogan & Richards, 2002; Hargreaves & Tiggemann, 2006; Ricciardelli et al., 2006). Firstly, many boys across the three groups focused on the attainment of strength and fitness as important goals. "Strength" was also identified as a valued masculine trait among males in all 25 countries investigated by Williams and Best (1990).

In addition and consistent with our work on Australian boys (Ricciardelli et al., 2006), many boys in the present study used the sporting context, another functional and male-dominated domain to highlight their body image concerns. Again the emphasis was on strength and fitness, and how the enhancement of these two physical traits would benefit boys' sporting performance. Overall, this theme, although present among the Indo-Fijian narratives, was not as prominent as found among the other two groups. As noted by our Indo-Fijian co-analyst, many Indo-Fijian boys are not encouraged to play sports as this is seen as interfering with their school work. However, Indo-Fijian boys would also have fewer international sporting heroes from their culture, as the main international sport in Fiji, rugby, is dominated by Indigenous Fijians. Moreover, the fact that many Indo-Fijians have smaller and less athletic body builds than Indigenous Fijians would be another disincentive to pursue and put as much importance on sport. The "dominance" theme was also more prevalent among the Indo-Fijians, and again this may be because this group tends to have a smaller body build than either Indigenous Fijians or Tongans.

An additional functional and masculine domain highlighted as important for the attainment of muscularity by both Indigenous Fijians and Tongans was the realm of physical work. Physical work for Indigenous Fijian boys is a central aspect of everyday life from a young age. Boys are expected to take part in community life and help with daily chores (Ravuvu, 1983). Physical work is highly valued in Tonga as many Tongans rely on farming and livestock to supplement their living (http:// www.state.gov/r/pa/ei/bgn/16092.htm), and most adolescent Tongan males assist with cultivating the land. On the other hand, Indo-Fijian boys are taught to put school work ahead of working around the home and doing extra chores (Otsuka, 2006). Therefore, the importance of physical work may have less salience for Indo-Fijian boys.

Although the role of sport was a less salient theme for the Indo-Fijians, and physical work did not feature in their narratives, several of the Indo-Fijians boys placed as much importance on a larger body size and the advantages associated with strength and dominance as the other two groups of boys. In particular, Indo-Fijians noted how a larger body size can intimidate and protect boys from bullying and teasing. This is more likely to have been salient among the Indo-Fijians, as their body build tends to be on average smaller and weaker than Indigenous Fijians. In fact, all the Indo-Fijians pointed this out in their narratives, and so did many of the Indigenous Fijians. More research is now needed to examine whether Indo-Fijians are more at risk of developing chronic body image concerns, and other social and emotional problems than the other two groups. Males who are below average weight for their height or view themselves as underweight tend to be more negative in their body image concerns, social adjustment, achievement aspirations, and overall selfconcepts (Falkner et al., 2001; Harmatz, Gronendyke, & Thomas, 1985; Tata, Fox, & Cooper, 2001). Moreover, Indo-Fijians males would provide an interesting comparison group for future research as they are appear to be less engaged in traditional masculine pursuits such as sport and physical work.

Many of the boys across the three cultural groups gave health reasons as another main motive for

improving their body image and engaging in body change strategies. On the other hand, the need to look good was mentioned less frequently. The domain of health, as with fitness and athleticism, was also noted by Grogan and Richards (2002) as providing an important context for discussing young men's body image concerns. Consistently Western boys have been shown to place more importance on what a fit and healthy looking body can do, rather than on looking good (Franzoi & Shields, 1984; Grogan & Richards, 2002; Lerner, Orlos, & Knapp, 1976). Moreover, adolescent Western men appear to feel less comfortable talking about the appearance of one's body as this is not seen as masculine-appropriate behavior (Hargreaves & Tiggemann, 2006; Ricciardelli et al., 2006). However, additional studies are needed to more fully examine cross-cultural differences on the importance of looking good. Some of the Pacific boys did mention wanting to look good in their interviews. Thus they do not appear to show the same level of discomfort in talking about their looks as has been noted in previous studies with European Australian (Hargreaves & Tiggemann, 2006; Ricciardelli et al., 2006), and British adolescent boys (Grogan & Richards, 2002). Moreover, a focus on one's appearance may be become more salient during early adult, as this was a main theme found by Ridgeway and Tylka among adult males in the U.S. (2005). This hypothesis is also consistent with the "attractiveness" literature, as both looking good and a muscular body build are important criteria for selecting a male partner (Swami & Tovée, 2005).

An interesting finding from the current study was that the adolescent boys did not highlight many of the traditional views for having a large body among males from the Pacific Islands. The indigenous Fijian and Tongan boys highlighted the need for a large body for physical work but there was no mention of a large body representing wealth, power or status as Becker et al. (2002) suggest. Although dominance was identified as a theme, this was defined more in terms of avoiding bullying rather than a representation of power or status. Perhaps the traditional symbols of status and power are more prevalent among adult males. However, it may also be that the avoidance of bullying is an indicator of status and power among Pacific Islanders. Alternatively, males from Pacific Islands may have become more acculturated to the Western views of the role of a large and muscular body. Further research is needed to examine these possibilities.

In the present paper we did not examine the extent which boys' pursuit of muscularity was also being promoted by sociocultural messages from family, friends and the media. Nor did we examine the extent to which three cultural groups were exposed to Western ideals of attractiveness. Sociocultural pressures from family, friends and the media have all been found to be important contributors to the drive for muscularity among Western boys in the U.S. (Jones & Crawford, 2005, 2006; Smolak et al., 2005) and Australia (McCabe & Ricciardelli, 2005; Ricciardelli & McCabe, 2003). Moreover, peers and the media have been found to be very important in promoting body image concerns among Fijian girls (Becker et al., 2002; Williams, Ricciardelli, McCabe, Waqa, & Bavadra, 2006; Williams, Ricciardelli, McCabe, et al., 2006). However, Fijian girls receive competing messages from older community and family members that focus primarily on the importance of eating more and attaining a larger body size in line with traditional values (Becker et al., 2002; Williams, Ricciardelli, McCabe, et al., 2006). Unlike girls, Fijian boys and boys from other Pacific cultural groups are likely to be receiving consistent messages about pursing muscularity from all sources. Moreover, as the pursuit of a larger body size is consistent with traditional values, the drive for muscularity may be even more marked among boys from Pacific cultures than among Western boys. Additional research is needed to more fully examine how sociocultural pressures may be working in tandem with sociobiological motives (Grav & Ginsberg, 2007). Both processes may also be moderated by biological factors such as body build and BMI (Ricciardelli et al., 2007), and pubertal development and pubertal timing (Ricciardelli & McCabe, 2004).

One of the main strengths of the present study was the use of a qualitative research design in order to allow issues that are specifically relevant for the respondents to emerge from the data. However, the focus was on identifying global themes and not on specifically examining differences among the three cultural groups. A comparative analysis between Indigenous Fijians, Indo-Fijian and Tongans and Western boys from countries such as the U.S., the U.K., and Australia is now needed so we can more fully evaluate the similarities and differences between these cultural groups.

Several limitations also need to be acknowledged. Firstly, the views of the researchers and interviewers were not articulated and discussed among the research team prior to conducting the interview and analyses (Ridgeway & Tylka, 2005). Secondly, participants were not re-interviewed to evaluate whether the overall themes and categories generated by the research team to see if these themes appropriately reflected their experiences (Smith, 2003). Both of these are additional practices in qualitative research, which would help to strengthen the credibility of the findings. In addition, we did not obtain any information on the socioeconomic status of participants' families. This is another variable that needs to be addressed in future research as low socioeconomic status is directly correlated with obesity but inversely with weight concerns (Brown & Konner, 1987).

Overall, the main themes highlighted across the three cultural groups were similar to those that have been identified in studies with Western adolescent boys. Across all three cultural groups, the boys were highly focused on pursuing muscularity, and they gave primarily functional reasons associated with masculine ideals. One theme found among both Indigenous Fijians and Tongans but not identified in previous work with Western boys was the focus on physical work. However, as with sport, this appears to be another way that boys can promote strength and other masculine attributes. This focus on functional domain is also likely to be a protective factor that helps men maintain a more positive body image and higher self-esteem than is found among women (Strahan, Wilson, Cressman, & Buote, 2006).

### References

- Becker, A. E., Burwell, R. A., Gilman, S. E., Herzog, D. B., & Hamburg, P. (2002). Eating behaviours following prolonged exposure to television among ethnic Fijian adolescent girls. *British Journal of Psychiatry*, 180, 509–514.
- Brown, P. J., & Konner, M. (1987). An anthropological perspective on obesity. Annals of the New York Academy of Sciences, 499, 29–46.
- Cafri, G., Thompson, J. K., Ricciardelli, L. A., McCabe, M. P., Smolak, L., & Yesalis, C. (2005). Pursuit of the muscular ideal: Physical and psychological consequences and putative risk factors. *Clinical Psychology Review*, 25, 215–239.
- Cafri, G., van den Berg, P., & Thompson, J. K. (2006). Pursuit of muscularity in adolescent boys: Relations among biopsychosocial variables and clinical outcomes. *Journal of Clinical Child and Adolescent Psychology*, 35, 283–291.
- Connell, R. (1995). Masculinities. Cambridge: Polity.
- Craig, P., Halavatau, V., Comino, E., & Caterson, I. (1999). Perception of body size in the Tongan community: Differences from and similarities to an Australian sample. *International Journal of Obesity*, 23, 1288–1294.
- Craig, P. L., Swinburn, B. A., Matenga-Smith, T., Matangi, H., & Vaughan, G. (1996). Do Polynesians still believe that big is beautiful? Comparison of body size perceptions and preferences of Cook Islands, Maori and Australians. *New Zealand Medical Journal*, 109, 200–203.
- Drummond, M. J. N. (2002). Sport and images of masculinity: The meaning of relationships in the life course of "elite" male athletes. *The Journal of Men's Studies*, 10, 129–141.

- Falkner, N. H., Neumark-Sztainer, D., Story, M., Jeffery, R. W., Beuhring, T., & Resnick, M. D. (2001). Social, educational, and psychological correlates of weight status in adolescents. *Obesity Research*, 9, 32–42.
- Field, A. E., Austin, S. B., Camargo, C. A., Taylor, C. B., Striegel-Moore, R. H., Loud, K. J., et al. (2005). Exposure to the mass media, body shape concerns, and use of supplements to improve weight and shape among male and female adolescents. *Pediatrics*, *116*, 214–220.
- Gray, J. J., & Ginsberg, R. L. (2007). Muscle dissatisfaction: an overview of psychological and cultural research and theory. In J. K. Thompson & G. Cafri (Eds.), *Muscular ideal: Psychological social, and medical perspectives* (pp. 15–39). Washington DC: APA.
- Franzoi, S. L., & Shields, S. A. (1984). The Body Esteem Scale: Multidimensional structure and sex differences in a college population. *Journal of Personality Assessment*, 48, 173–178.
- Grogan, S., & Richards, H. (2002). Body image: Focus groups with boys and men. *Men and Masculinities*, *4*, 219–232.
- Hargreaves, D. A., & Tiggemann, M. (2006). 'Body image is for girls': A qualitative study of boys' body image. *Journal of Health Psychology*, 11, 567–576.
- Harmatz, M. G., Gronendyke, J., & Thomas, T. (1985). The underweight male: The unrecognised problem group of body image research. *Journal of Obesity and Weight Regulation*, 4, 258–267.
- Huenemann, R. L., Shapiro, L. R., Hampton, M. D., & Mitchell, B. W. (1966). A longitudinal study of gross body composition and body conformation and association with food and activity in teenage population: Views of teenage subjects on body conformation, food and activity. *American Journal of Clinical Nutrition*, 18, 323–338.
- Jones, D. C., & Crawford, J. K. (2005). Adolescent boys and body image: Weight and muscularity concerns as dual pathways to body dissatisfaction. *Journal of Youth and Adolescence*, 34, 629–636.
- Jones, D. C., & Crawford, J. K. (2006). The peer appearance culture and adolescence: Gender and body mass variations. *Journal of Youth and Adolescence*, 35, 243–255.
- Layder, D. (1993). *New strategies in social research*. Cambridge: Polity.
- Leon, G. R., Fulkerson, J. A., Perry, C. L., Keel, P. K., & Klump, K. L. (1999). Three to four year prospective evaluation of personality and behavioral risk factors for later disordered eating in adolescent girls and boys. *Journal of Youth and Adolescence*, 28, 181–196.
- Lerner, R., Orlos, J. B., & Knapp, J. R. C. (1976). Physical attractiveness, physical effectiveness and self-concept in late adolescents. *Adolescence*, 43, 313–326.
- Lipinski, J. P., & Pope, H. G. (2002). Body ideals in young Samoan men: A comparison with men in North America and Europe. *International Journal of Men's Health*, 1, 163–171.
- Mahalik, J., Locke, B., Ludlow, L., Diemer, M., Scott, R., Gottfried, M., et al. (2003). Development of conformity to Masculine Norms Inventory. *Psychology of Men and Masculinity*, 4, 3–25.
- McCabe, M. P., & Ricciardelli, L. A. (2001). Body image and body change techniques among young adolescent boys. *European Eating Disorders Review*, 9, 335–347.
- McCabe, M. P., & Ricciardelli, L. A. (2005). A prospective study of pressures from parents, peers, and the media on extreme weight change behaviors among adolescent boys and girls. *Behaviour Therapy and Research*, 43, 653–668.
- McCabe, M. P., Ricciardelli, L. A., & Ridge, D. (2006). "Who thinks i need a perfect body?" Perceptions and internal dialogue among adolescents about their bodies. *Sex Roles*, 55, 409–419.

- McCreary, D. R., & Sasse, D. K. (2000). An exploration of the drive for muscularity in adolescent boys and girls. *Journal of American College Health*, 48, 297–304.
- McCreary, D., Saucier, D., & Courtenay, W. (2005). The drive for muscularity and masculinity: Testing the associations among gender-role traits, behaviors, attitudes, and conflict. *Psychology* of Men and Masculinity, 6, 83–94.
- Metcalf, P. A., Scragg, R. K. R., Willoughby, P., Finau, S., & Tipene-Leach, D. (2000). Ethnic differences in perceptions of body size in middle-aged European, Maori and Pacific people living in New Zealand. *International Journal of Obesity*, 24, 593– 599.
- Mishkind, M. E., Rodin, J., Silberstein, L. R., & Striegel-Moore, R. H. (1986). The embodiment of masculinity. *American Behavioral Scientist*, 29, 545–562.
- Otsuka, S. (2006). Cultural influences on academic achievement in Fiji. Unpublished manuscript. University of Sydney, Australia.
- Ravuvu, A. (1983). Vaka i Taukei: The Fijian way of life. Suva, Fiji: University of the South Pacific.
- Ricciardelli, L. A., & McCabe, M. P. (2003). A longitudinal analysis of the role of biopsychosocial factors in predicting body change strategies among adolescent boys. *Sex Roles*, 48, 349–359.
- Ricciardelli, L. A., & McCabe, M. P. (2004). A biopsychosocial model of disordered eating and the pursuit of muscularity in adolescent boys. *Psychological Bulletin*, 130, 179–205.
- Ricciardelli, L. A., & McCabe, M. P. (2007). Pursuit of muscularity among adolescents. In J. K. Thompson & G. Cafri (Eds.), *Muscular ideal: Psychological social, and medical perspectives* (pp. 199–216). Washington DC: APA.
- Ricciardelli, L. A., McCabe, M. P., & Banfield, S. (2000). Body image and body change methods in adolescent boys: Role of parents, friends and the media. *Journal of Psychosomatic Research*, 49, 189–197.
- Ricciardelli, L. A., McCabe, M. P., & Ridge, D. (2006). The construction of the adolescent male body through sport. *Journal of Health Psychology*, 11, 577–587.
- Ricciardelli, L. A., McCabe, M. P., Williams, R. J., & Thompson, J. K. (2007). The role of ethnicity and culture in body image and disordered eating among males. *Clinical Psychology Review*, 27, 582–606.
- Ridgeway, R. T., & Tylka, T. L. (2005). College men's perceptions of ideal body composition and shape. *Psychology of Men and Masculinity*, 6, 209–220.
- Smith, J. A. (2003). *Qualitative psychology: A Practical guide to research methods.* London: Sage.
- Smolak, L., Murnen, S. K., & Thompson, J. K. (2005). Sociocultural influences and muscle building in adolescent boys. *Psychology of Men and Masculinity*, 6, 227–239.
- Smolak, L., & Stein, J. A. (2006). The relationship of drive for muscularity to sociocultural factors, self-esteem, physical attributes, gender role, and social comparison in middle school boys. *Body Image*, 3, 121–129.
- Strahan, E. J., Wilson, A. E., Cressman, K. E., & Buote, V. M. (2006). Comparing to perfection: How cultural norms for appearance affect social comparisons and self-image. *Body Image*, 3, 211– 227.
- Swinburn, B., Scragg, R., Pryor, J., McCabe, M. P., Carer, R., & de Courten, M. (in press). The Pacific OPIC (Project Prevention in Communities): Objective and designs. *Pacific Health Dialogue*.
- Swami, V., & Tovée, M. J. (2005). Male physical attractiveness in Britain and Malaysia: A cross-cultural study. *Body Image*, 2, 383–393.

- Tata, P., Fox, J., & Cooper, J. (2001). An investigation into the influence of gender and parenting styles on excessive exercise and disordered eating. *European Eating Disorders Review*, 9, 194–206.
- Thompson, J. K., & Cafri, G. (Eds.). (2007). The muscular ideal: Psychological, social, medical perspectives. Washington, DC: American Psychological Association.
- Weisfeld, G. E., & Billings, R. L. (1988). Observations on adolescence. In K. B. MacDonald (Ed.), *Sociobiological perspectives on human development* (pp. 207–233). New York: Springer-Verlag.
- Williams, L., Ricciardelli, L. A., McCabe, M. P., Waqa, G. G., & Bavadra S K., (2006a). Body image attitudes and concern among

indigenous Fijian and European Australian adolescent girls. *Body Image*, *3*, 275–287.

- Williams, L. K., Ricciardelli, L. A., McCabe, M. P., Swinburn, B. A., Waqa, G. G., & Bavadra, K. (2006b). A comparison of the sources and nature of body image messages perceived by indigenous Fijian and European Australian Adolescent girls. *Sex Roles*, 55, 555–566.
- Williams, J. E., & Best, D. L. (1990). Measuring sex stereotypes: A multination study. Newbury Park, California: Sage.
- Wood, W., & Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: Implications for the origins of sex differences. *Psychological Bulletin*, 128, 699–727.