Kick, punch, grapple: Exploring women's motivations for mixed martial arts participation

Adam Ali, Alexander DiBiase, Kylie Wasser, Mathew Brooks

University of Windsor: Faculty of Human Kinetics
Introduction

The most popular spectator sports in the United States are those perceived as masculine (Messner, 2002), and mixed martial arts (MMA), the exemplar of masculine sport, is dominated by male participation in both competition and recreation. The number of women competing in traditional masculine sports, such as combat sports, has significantly increased and it is predicted that women’s participation in MMA will likely conform to this trend (Leng et al., 2012; Pfister, 2010). MMA is also becoming increasingly popular through promotional efforts from companies, such as the Ultimate Fighting Championship (UFC) which hosts live events all around the world. Furthermore, as MMA has grown so has participation in MMA training, including women’s participation (Mayeda & Ching, 2008). Sports managers and facilitators for MMA organizations and clubs are in a position to benefit from increased female participation in MMA. Tom Wright, Canadian president of the UFC said in an interview that he believes there is a definite place for women in the future of MMA (2012). In order for this to be accomplished, sport managers and facilitators need to have a basic understanding of potential female participants’ motivations towards MMA. Identifying these motivations has the potential to act as a vehicle for increasing women’s involvement in MMA.

However, there are a variety of constraints that may hinder the growth of women's participation in the sport. Women may be discouraged to participate in MMA because of the influence of the media, which portrays and maintains it a masculine sport. Research has found that there are male spectators who believe females should restrict participation to sports labeled as 'feminine' (Cuneen & Claussen, 1999; Fink & Kinsicki, 2002; Jollimore, 2002). Female athletes are covered by the media less frequently and are not highlighted on their athletic achievements, but rather their personal lives, physical appearances, and clothing choices (Cooky,
Wach, Messner, & Dworkin, 2010; Wanta, 2006). The existence of this male hegemonic order in the sport context serves to restrict females to what is perceived as 'appropriate' athletic and recreational activities, and could act as a de-motivating factor for women to become involved in a 'deviant' form of physical activity such as MMA.

Conversely, the passage of Title IX in 1972 in the United States provided an avenue for the movement of girls and women into many sports that were not considered "feminine." Despite the aforementioned spectator and media insinuations regarding gender differences in MMA participation, female participation continues to increase in this male-dominated sport. The existence of women’s-only training classes provides evidence of female participation, as does promotional organizations like Strikeforce and Bellator Fighting Championships. It is evident that women are training and competing in MMA, but limited research exists on what motivational factors influence their participation.

**Purpose**

With this in mind, the purpose of this exploratory study was to develop an understanding of the motivations for why females train in MMA. While there is research that observes spectator motivations surrounding the consumption of MMA, there is limited literature that defines participant motivational factors, substantiating a need for knowledge in this area. The results of this explorative analysis may help to lay the groundwork for future research while assisting in facilitating improved promotional practices for MMA training facility managers. In order to begin this study, a literature review concerning motivation, the constraints that limit female participation in sport and female-specific motivational factors for participating in sport was completed. The methodology of our exploratory study will be laid out, as well as the results
and discussion concerning female participator motives in MMA. Conclusions of this research as well as limitations, future research directions and practical implications will also be discussed.

**Review of Literature**

**Motivation**

The role of motivation in sport participation is an area that has been extensively explored by sport researchers. Lox, Martin Ginis and Petruzello (2010) define motivation as “the degree of determine, drive, or desire with which an individual approaches or avoids a behaviour” (p. 48). Driving motivational research has been self-determination theory (Deci & Ryan, 1985), which proposes that individuals seek challenges based on three primary psychosocial needs: the need for self-determination (autonomy, self-dependent behaviour), the need to demonstrate competence, and the need for relatedness. These needs are fulfilled along a continuum that have three themes including amotivation (or the lack of motivation), extrinsic motivation and intrinsic motivation (see Appendix A) (Deci, 1975).

Amotivation, or a lack of motivation lies at one end of the continuum, while intrinsic motivation, or engaging in activities for the purposes of pleasure or satisfaction, lies at the other (Deci, 1975). Intrinsic motivation can further be broken down into three separate internally emanating driving forces: intrinsic motivation to know, to accomplish things, and to experience stimulation (Vallerand, Blais, Brière & Pelletier, 1989). Intrinsic motivation includes constructs such as exploration, curiosity, learning goals and the basic need to learn, and revolves around the concept that individuals are internally motivated by the pleasure or satisfaction they experience when learning something new. Intrinsic motivation toward accomplishments is as its name suggests: pleasure experienced when an individual attempts to accomplish something or attempts mastery.
Extrinsic motivation emanates from sources outside the individual, and is further broken down into four subcategories of regulation that also follow the continuum: external (to gain reward or avoid punishment from external pressures), introjected (to avoid guilt from a sense of obligation), identified (to achieve personal goals) and integrated (to confirm one’s sense of self) (Deci & Ryan, 1985). While an understanding of general motivation is essential to framing our study, a review of the literature concerning specific constraints to participation as well as specific motivational factors with regards to female sport participation is critical to the formation of our research questions.

**Drop Out and Constraints Involving Sport Participation**

There is substantial research concerning drop-out rates of both those who participate in supervised exercise programs and those who begin exercise on their own, which collectively shows that about 50% of those participants drop out within three months (Dishman, 1988; Engstrom, 1989; Franklin, 1978; Gill & Overdorf, 1994; Martin & Dubbert, 1982; Powell, Spain, Christenson & Mollenkamp, 1986; Robinson & Godbey, 1993; Stephens, Jacobs & White, 1985 as cited in Koivula, 1999). So whether or not a person exercises alone, with a partner or in a group, a large portion seems to struggle in maintaining a form of exercise. The perceived constraints over motivations may have an influence in this regard.

Constraints are any physical or psychological factors that inhibit a person from participating in an activity. Crawford and Godbey (as cited in Alexandris, Tsrbatzoudis, & Grouios, 2002) classified constraints into intrapersonal, interpersonal, and structural. Intrapersonal constraints are internal factors related to individual preferences and needs while interpersonal constraints result from interpersonal interactions and include constraints related to how participants interact with one another. Finally, structural constraints are external constraints
related to the participant's ability to obtain the equipment needed to participate in the activity. Intrapersonal constraints specifically can be explored more in regards to female participation in MMA.

Two examples of intrapersonal constraints that are of great concern to female participation include time and individual knowledge. Time constraints refer to the hours of operation, frequency, and duration of recreational events. The implication of individual knowledge indicates that the more educated a person is about a specific event, the more likely that person is to participate. According to Crawford and Godbey (as cited in Alexandris et al., 2002), intrapersonal constraints have the strongest effect on motivations and therefore are the most powerful predictors of commitment to a recreational activity. Leisure participation is dependent on how potential participants are able to negotiate constraints. If a potential participant can retrieve the required information about an event, and the time frame of the event corresponds with the individual's schedule, then there is increased potential for participation. While the relationship between motivation and overcoming constraints requires further examination to accurately determine whether constraints are dependent on motivation or vice versa, Carroll and Alexandris (as cited in Alexandris et al., 2002) were able to provide empirical data proving there is a relationship between the two constructs. In order to fully understand how a participant would be affected by constraints, more must be known about personal motivating factors.

**Motivational Factors for Participation in Sport by Gender**

There are numerous studies suggesting that overall enjoyment is a very important motivating factor for participating in sport, regardless of gender (Gould, Feltz, & Weiss, 1985; Kolt et al., 1999; Lee, Whitehead, & Ralchin, 2000; MacLean & Hamm, 2008). More recently
in Gitonga and Nteere's (2011) review of previous literature on participation motivation, it was revealed that athletes participate in sports due to the following factors: it increases their competence such as learning and improving skills; affiliation such as being with friends or making new ones or being a part of a team; competition; as well as fun and excitement.

There are underlying differences that exist when specifically observing female participation motivations in sport. There is conflicting evidence in the literature of what factors play the most significant role in motivating female participation in sport. For example, Koivula (1999) found that female subjects rated maintaining their appearance in line with what is deemed acceptable by society as more significant than male subjects did. Further, females also identified body image factors such as maintaining and/or losing weight and staying slim or toned in a number of studies (Henry, Sanborn, Senne, & Nichols, 2011; Myers & Roth, 1997) as motivational factors for sport participation. These motivational factors also held true for female college students as fitness, weight management, appearance and revitalization were found to be highly influential while the motivating factors for participation with the least influence included strength and endurance, competition and skill development (Rintaugu & Ngetich, 2012).

However, there is also evidence pointing to the need for social interactions and outcomes, such as forming or enhancing relationships with peers, as an important motivating factor for female participation in sport. Research has identified an outward focus integrating social interaction as a female point of emphasis for participation (MacLean & Hamm, 2008; Simmons & Dickinson, 1986). Social interaction was also identified as a source of motivation for females in Perry, Saelens, and Thompson's research (2011), where youth females identified 'team' as a source of motivation that can enhance enjoyment, support and commitment to the group in team sports. Moreover, Dixon's (2009) observation of barriers to physical activity and sport
programming for working mothers showed that most of the participants felt that group participation was the most desirable form of participation that led to more accountability, social interaction, and enjoyment.

Another category of motivation for women's participation in sport that should be considered is resistance to the hegemonic femininity that is existent within the culture of sport. Lim et al. (2011) argued that there is substantial research in the sport and leisure field that describe how women utilize sport as a form of empowerment. In this particular context, female athletes could overcome barriers and empower themselves through making changes in their choice of leisure activity to receive increased benefits (Dixon, 2009). This empowerment may come from participation in sport and exercise. Young and White (1995) also suggest that participation in sport has potential for reshaping gendered expectations. Women who participate in sport may then become motivated to create alternative images for women in sport (Krane, 2001).

So, while there is evidence that appearance, health, and body image are strong underlying influences in sport participation factors for women, other studies have shown that social outcomes and relationships are also important to consider. In addition, the empowerment of challenging the existing gender norms by participating in a 'masculine' sport such as MMA could act as a significant factor for female participation. In contrast, factors such as competition and skill development were not shown to be influential in motivating sport participation amongst females. This study sought to discern important motivational factors for women who participate in MMA. This was further broken down into three research questions (RQs):

RQ-1. How did our research participants become involved in MMA training?
RQ-2. Why do our research subjects take part in MMA training and what are their specific motivations that they believe influences them to maintain their participation?

RQ-3. Do our subjects face barriers or constraints, physical, social or otherwise, that affect how often or in what way they participate in MMA training?

With these three questions in mind, we sought to unearth trends and themes involving MMA participation motives for females.

Methodology

Research Design

This paper sought to explore the motivational factors for women who participate in MMA training. Given the growing participation of MMA female participants, a qualitative approach was used by this paper in order to explore multiple realities of subjects, which will set the foundation for future research in this field. Further, Hargreaves (1994) argued that the qualitative method is more appropriate when seeking women’s experiences of sport. Semi-structured interviews were employed since it enables the researcher to cover core topics while having the flexibility to explore additional related topics of interest (Kvale & Brinkmann, 2009). In order to attempt to explore, 'what motivates one to participate in MMA', empirical data was collected from 13 semi-structured interviews. Questions with the interview guide were centered on the following themes: past sports participation and reasons for beginning, and in some cases, continuing, MMA training; the meaning of MMA to the subjects and how the sport fits in with their self-description and identity; and the opportunities and constraints that influence the participation rates of the subjects.
Sample Selection

Contact with the participants was made through the Adrenaline Training Centre in London, Ontario, Canada. The researchers’ professorial advisor made first contact with the acting manager of Adrenaline to inquire if there were females participating in training and if so, for the researchers to come and approach women about their willingness to be involved in a short interview. An incentive of being put in a draw to win one month of free MMA classes was also provided after an agreement was reached between Adrenaline and the researchers. The sample consisted of thirteen females, who after meeting the researchers consented to be interviewed. To ensure accuracy, the interviews were recorded using Olympus WS-500M professional grade voice recorders and later transcribed by the interviewers. Consent to audiotaping was also given by all the participants in the study.

Our sample was focused on recruiting participants from the women’s-only Kickboxing class, with more than half our participants taking part in that class. However, their membership also allowed them access to other classes as well as access to the gym itself, so this may not represent their full MMA participation portfolio. Participants were also recruited through referrals of the females in the Kickboxing class as well as identifying and recruiting females observed participating in other parts of the gym. The subjects ranged from beginner to intermediate with anywhere from very limited to over three years of experience participating in MMA. In addition, there were a small number of participants who were training competitively or looking to become competitive in the near future, while others interviewed did not fight and were recreational in their use of MMA training.
Administration of Interview

The interviews were conducted by all four of the researchers, consisting of three males and one female. Confidentiality was maintained for all participants in the study, and their names were not included in our paper. The possible impact of males interviewing female participants was discussed and it was agreed that it was possible to have male interviewers as long as they were mindful of their language used in the interview as well as limiting potentially perceived power relations in the process. Through discussion of these issues, we were confident as a research group that we would be able to manage the interviews successfully. In particular, one subject was open to discussing, in conversation with a male interviewer, her feelings that male peers in an MMA class took advantage of her small build to inflict pain on her. This displayed her comfort in discussing gendered issues regardless of the sex of the interviewer. Moreover, the open layout of Adrenaline Training Centre as well as the participant's experiences of training often around males in MMA environments meant they were used to men in that environment which also would have helped increase their comfort level around male interviewers.

The term mixed martial arts should be addressed in its application to the methodology of this particular study. MMA is a broad term that can take on many different forms of martial arts within its definition. At Adrenaline Training Centre, these included Muay Thai, Jiu Jitsu (Gi/Nogi), Boxing and Kickboxing. As previously stated, many of the participants in our research were members of the women's-only Kickboxing class, which would fall into this MMA definition. Other participants included a Jiu Jitsu fighter, Muay Thai participant, and boxer.

The researchers met for one to two hours following both interview days to debrief and discuss general themes of the material. Once all the interviews were completed, the interviewers’ transcribed them verbatim. Although follow-up interviews with the participants
were not possible to determine the accuracy of the qualitative findings, the interviewers confirmed answers with participants during the interview to ensure accuracy and validity in the findings. An alternative researcher then checked the transcripts to ensure they did not contain any obvious mistakes and were comprehensible. The researchers then analyzed the data using the coding process described in detail by Cresswell (2009, p. 185-189).

After transcribing the data and taking down important notes in the form of memos, the coding process began where trends from the individual interviews were recorded. This information was collected, with major themes being extrapolated from the data in a group analysis that included all the researchers. The definition of codes and themes being drawn was defined so consistency existed for all the researchers in the data analysis. From here, the interviews were re-coded for further analysis, and the description and interpretation of the data was defined in the results and discussion sections. As suggested by Creswell (2009, p. 191-192), themes identified in the results and discussion sections were “established based on converging several sources of data or perspectives from participants.” Validity was also obtained through the use of rich, thick description to describe the findings of the study along with continual and in-depth review from a professorial advisor to the researchers.

The Sport Motivation Scale-6 (SMS-6), revised by Mallett, Kawabata, Newcombe, Otero-Forero, & Jackson (2007), was utilized to assist the researchers in grouping the coded data into certain pallets of the model. The SMS categorizes individual’s motivations into the following categories: amotivation, external regulation, introjected regulation, identified regulation and intrinsic motivation to know, to accomplish and to experience stimulation, based on results from a 28-item questionnaire (Pelletier et al., 1995). In an attempt to maintain a wide range of interpretations, this study utilized the SMS-6 as more of a guide and did not interpret the
results exclusively through the model. Coded data and trends that were found outside the limits of the SMS-6 was further grouped into different sections as well.

Due to the inability of generalization from qualitative inquiry (Creswell, 2009, p. 192-193) and the findings being drawn from a small number of respondents, they are not representative of all females participating in MMA. However, the findings still offer a significant contribution to the literature on important motivating factors in MMA participation for females. The following section will explore the themes that emerged from data collected focusing specifically on those that discuss the motivations for female participation in mixed martial arts.

**Results and Discussion**

**Introduction to MMA Training**

The interviews conducted with the thirteen female participants from Adrenaline Training Centre produced findings that allowed us to develop a foundation of factors regarding how the female participants in the study were introduced to MMA training. Table 1 below presents the findings of how the participants were introduced to MMA training, if they have any female role models in MMA, the type of training they participate in, how long they have been participating, and at what level (recreational or competitive) they compete.
Table 1: Indicating female participants’ introduction to MMA training.

<table>
<thead>
<tr>
<th>Female Participant (FP)</th>
<th>Introduction to MMA Training (Who; Tie to gym)</th>
<th>Female Role Models in MMA?</th>
<th>Type of Training</th>
<th>Length of Participation</th>
<th>Recreational/Competitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP1</td>
<td>Boyfriend; using gym</td>
<td>Yes</td>
<td>Kickboxing</td>
<td>3 years</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP2</td>
<td>Friend (Male); using gym</td>
<td>No</td>
<td>Kickboxing</td>
<td>1.5 - 2 years</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP3</td>
<td>Coworker (male); trainer at gym</td>
<td>Yes</td>
<td>Kickboxing, Boxing</td>
<td>6 months</td>
<td>Competitive</td>
</tr>
<tr>
<td>FP4</td>
<td>Friend (female); knew trainers</td>
<td>Yes</td>
<td>Kickboxing</td>
<td>1 year</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP5</td>
<td>Sister; using gym</td>
<td>No</td>
<td>Kickboxing, Jiu Jitsu</td>
<td>3.5 years</td>
<td>Competitive</td>
</tr>
<tr>
<td>FP6</td>
<td>Husband; knew trainers</td>
<td>No</td>
<td>Kickboxing</td>
<td>1 year</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP7</td>
<td>Husband; knew trainers</td>
<td>No</td>
<td>Kickboxing</td>
<td>1 month</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP8</td>
<td>Friend; joining gym</td>
<td>Yes</td>
<td>Kickboxing</td>
<td>3 years</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP9</td>
<td>Husband; joined together</td>
<td>No</td>
<td>Kickboxing</td>
<td>3 years</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP10</td>
<td>Friend (female); using gym</td>
<td>No</td>
<td>Kickboxing</td>
<td>1st day</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP11</td>
<td>Family friend (male); trainer at gym</td>
<td>Yes</td>
<td>Kickboxing, Muay Thai</td>
<td>2 years</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP12</td>
<td>Knew of the gym</td>
<td>Yes</td>
<td>Kickboxing</td>
<td>6 months</td>
<td>Recreational</td>
</tr>
<tr>
<td>FP13</td>
<td>Friend (female); using gym</td>
<td>Yes</td>
<td>Kickboxing</td>
<td>3 years</td>
<td>Recreational, wants to be competitive</td>
</tr>
</tbody>
</table>

The female participants in the study were almost all introduced to Adrenaline Training Centre and it’s women’s-only Kickboxing class through word-of-mouth promotion. The word-of-mouth promotion was primarily shared through male trainers at the gym or male members of the gym with seven of the thirteen female participants being introduced this way. Only four of the thirteen participants were introduced through word-of-mouth promotion from a female friend, female trainer, or female gym member. The other two were introduced by other promotional means. Although Adrenaline Training Centre is utilizing posters, advertisements, and other promotions for the women’s-only Kickboxing class, it seemed that word-of-mouth promotion was the most prominent tactic for introducing female participants.
Female Role Models in MMA. The purpose of the interview question asking if the female participants (FP) had a female role model in MMA was to measure the participants' association with MMA versus the health and fitness aspect of the training. Seven of the thirteen female participants indicated that they do have female role models in MMA. FP-1 informed, “[They] have been around for a really long time and now they are getting more attention, which I think is great.” In addition FP-11 stated, “I think it’s motivating seeing how good they are and how they’ve persevered in a male-dominated sport,” while FP-12 mentioned that she would love for her daughters to aspire to be like them. When names were brought up for specific role models in the sport, Ronda Rousey was the top identified athlete. “She’s just a tough chick. She has respect of other MMA fighters, both male and female. She’s amazing and you can see the dedication that she puts into the sport,” remarked FP-4.

The results were fairly split on this aspect since six of the thirteen participants did not have a female role model in MMA and had little interest or negative views towards the competitive components of the sport. FP-10 shared, “It’s so bloody and unnecessarily violent, it doesn’t send a good message to youth.” The results from this study indicate that there are female participants that identify with the overall sport and others that do not identify with the sport but still participate in the training.

Type of Training. All of the female participants in the study were involved with the women’s-only Kickboxing class offered at Adrenaline Training Centre. This is largely due to the recruitment of the female participants revolving around the women’s-only Kickboxing class, although the study garnered female participants that were involved in other aspects of MMA training. The majority of female participants (eleven of the thirteen) were only looking for recreational participation in MMA training. Three of the thirteen female participants were
interested in the competitive side of MMA, and they were more likely to participate in the other classes (co-ed) including Boxing, Jiu-Jitsu, and Muay Thai, as well as one-on-one sessions with the gym’s trainers in order to improve their technical abilities.

**Length of Training.** The female participants interviewed ranged from their first day of training to three-and-a-half years of experience at the gym. Of the thirteen female participants interviewed, the average length of time training at the club was 1.74 years.

Table 1 provides a foundation of knowledge based around the introduction and participation of the female participants that allowed us to identify characteristics of the female participants involved in the study. The information obtained on how they became involved and how they participate is an important component for the recruitment of female participants along with motivational factors (why females participate in MMA training), which is further discussed in the following section.

**Enjoyment of Training**

There are numerous studies suggesting that overall enjoyment is a very important motivating factor for participating in sport, regardless of gender (Gould, Feltz & Weiss, 1985; Kolt et al., 1999; Lee, Whitehead & Ralchin, 2000; MacLean & Ham, 2008). In addition, Gitonga and Nteere (2011) reveal that athletes participate in sports due to factors including fun and excitement. FP-2 stated, “Yeah, it was fun. It’s addicting, like I started going to the gym more.” FP-7 also exclaimed, “Oh my God; it’s so much fun! I am so excited about that [Kickboxing class]; it’s just so much fun!” The results indicate that enjoyment, fun, and excitement for the MMA training are evident in the majority of female participants interviewed. FP-6 and FP-12 shared their experiences with this motivational factor proclaiming, “Like you can’t leave here in a bad mood. This is the real deal here; I think they’re really serious and really
passionate about what they do” and “You just have to come here and experience it and you’re hooked and everyone I’ve talked to is the same way,” respectively.

The motivations stemming from enjoyment of training seem to reflect on other motivations of participation such as the actual programs, the instructors, social interaction, and intrapersonal skills and self-efficacy. Academic literature on fun as a motivation in a workplace, suggests that when people identify fun as a motivational factor, they are identifying with the process of being involved with the activity itself. A sense of reward is felt by simply performing the task not necessarily successfully completing an objective (Leonard, Beauvais, & Scholl, 1997). Our findings directly related to the aforementioned literature. Essentially, the interview results showed that twelve of the thirteen participants identified fun as a motivation for their participation in MMA training. However, when probed deeper, this actually referred to other motivators based around the activity and less around the outcomes. “I love punching, I love kicking; it feels good, I love it,” FP-4 shared. FP-13 also indicated, “[It’s] lots of hard work, dedication, and strategy. It’s fun!”

The above motivations towards enjoyment of training relate to the SMS-6 model based on intrinsic motivation (see Appendix B). The participants identify the excitement they feel when involved, satisfaction from mastering techniques, satisfaction from perfecting abilities, and pleasure of discovering new performance strategies. On the other hand, the enjoyment of training was evident in the responses of the interviewed female participants by their reactions to if they had to stop the activity of MMA training. FP-1 exclaimed, “I would be devastated if I couldn’t participate!” Relating back to SMS-6, this shows that training has become an integral part of the participants’ life and represents integrated regulation; an internal motivation based on a combination of identifications with other goals and values (see Appendix B). The enjoyment
of training thus existed as an internal motivation for why females are participating in MMA training within the findings of our study.

**Health and Fitness**

Another significant theme from the interviews that was identified by all the female participants was health and fitness as a motivator. Health and fitness for females is one of the most important motivators to participation, as seen in the findings from the interviews with females training in MMA. In terms of this study, health and fitness is defined in relation to three main areas: being active and living a healthy lifestyle; losing weight and body image factors; and stress relief. The female participants consistently discussed the importance of health and fitness, specifying which areas motivated them to participate in MMA training.

**Being Active and Living a Healthy Lifestyle.** In terms of being active and living a healthy lifestyle, many of the female participants identified that the MMA training fulfilled a need for them to become active and benefit from the positive outcomes of their sport activity. This was seen when FP-1 stated, “I was getting older and lazy and tired and I thought it was time to actually have like some sort of exercise.” In addition, FP-7 described, “It’s a full body workout. It works out everything. Flexibility, core balance, overall strength.” The motivation of becoming active, through MMA training for the female participants, in most cases led to a move towards a healthier overall lifestyle. “I started going to the gym more…and I was more conscious about eating healthy and using [my] body trying to get into the best shape,” FP-2 reflected. The motivation of being active and living a healthy lifestyle was usually related to losing weight and body image factors.

**Losing Weight and Body Image Factors.** The motivation of losing weight and body image factors found in this study from the female participants interviewed relates back to past
literature. Koivula (1999) explained that maintaining appearance in line with what is deemed acceptable by society is more significant for women in sport participation. In addition, body image factors including losing weight and staying slim or toned are identified as important to female sport participants (Henry et al., 2011; Myers & Roth, 1997). In their interviews, FP-6 identified getting back in shape and to lose weight as her main goals while FP-13 mentioned body toning and losing weight as the positive benefits of participating in MMA training. The theme of weight loss and body image factors arose in twelve of the thirteen interviews. MMA training proved to satisfy the participants’ motivations to lose weight and improve body image.

FP-2 stated,

“Even if they [Adrenaline Training Centre] advertised how good a workout it is; just a full body workout. A lot of girls look for that, right; toned body and everything. MMA will do all that for you and how quick you notice the results is amazing.”

**Stress Relief.** The last aspect of health and fitness that proved a motivator for female participation in MMA training is stress relief. As discussed in past literature, Koivula (1999) found that women rate release of stress and mood enhancement as an important motive for exercising. The theme of stress relief occurred in five of the thirteen interviews. “It’s good stress relief. I can be stressed all day, come in here and after class I always feel that the stress goes away,” FP-8 declared. In addition, FP-5 mentioned, “I need to punch something and have it be legal” as a way to release stress from her daily life.

The motivation of health and fitness identified from the interviews relates to the aforementioned SMS-6 model, specifically within the context of introjected regulation (Mallett et al., 2007). The female participants’ involved in the interview indicated that MMA training is important and necessary to stay in shape and to feel good about themselves. FP-3 reflected, "If I
don't do it [train], I feel like I let myself down." These aspects related to introjected regulation are external motivations as it refers to ideas or norms that are incorporated unconsciously into their psyche. With all thirteen of the female participants mentioning in the interviews that health and fitness was a motivation, it is evident that this was the main motivator for women to participate in MMA training for this study.

**Self-Efficacy**

The potential for increased physical and mental health is an initial motivating factor for female participation in MMA and has a positive effect on secondary motivations for participation. For the purpose of this study secondary motivation will be defined as motivational factors that were not among the original factors listed for participating in MMA and were developed while engaging in the event; influencing continued participation. Participants indicated that an increased feeling of self-efficacy developed while striving to reach goals associated with improved health. While the term self-efficacy was not directly used by any of the participants, the analyzed results from all thirteen interviews regarding the MMA experience indicated the development or an increase in self-efficacy. According to Lox et al. (2010), self-efficacy is the belief an individual has regarding whether or not they can successfully perform various segments of a task. The strength of a participant’s conviction to succeed at completing a task is determined by the individual’s level of self-efficacy. Bandura states (as cited by Lox et al., 2010) that there are four factors used to determine the existence and strength of a participant’s level of self-efficacy; all of which are evident in the statements provided by the participants in the study. The four factors included past performance accomplishments, vicarious experiences, social persuasion, and physiological and affective states (Lox et al., 2010).
Past performances refer to the process of accomplishing a goal or the thorough learning and performance of a skill, technique or behavior. Nine of the participants interviewed during this study indicated that they experienced a sense of improvement including FP-1 who acknowledged that during the process of training, “You learn things about yourself. It pushes you to a different level that you didn’t know existed”. This, in return, increased enthusiasm directed towards future participation. Similarly, FP-8 indicated improvement on past performances by stating, “I started losing [weight] rapidly and gaining skills really rapidly, like I’ve never had this sort of physical fitness experience before.” The second factor that determines self-efficacy refers to the positive feedback and support a participant receives from significant others or a personal trainer. Indication of this is evident in the social interaction portion of the paper. Many of the participants began training at an MMA facility because a friend or significant other encouraged them, as indicated by FP-7 who joined because her husband’s best friend was a trainer at Adrenaline and continued to participate due to the inclusive environment of the facility. The third factor pertains to correctly perceiving the physiological responses the body has to exercise. It is important that participants associate symptoms of exercise, such as sweating and heavy breathing, with a successful work out, and not mistake such symptoms as a negative result. An understanding of these symptoms was indicated clearly by FP-6 while explaining that she enjoys, “feeling like I’ve had a workout,” and FP-9 who claimed she believes in the expression, “no pain, no gain”, after experiencing the physical results of training in MMA facility. The final factor used to determine self-efficacy includes being associated with participants who have taken on challenges similar in nature and successfully overcome them or having an advanced role model to use as an indicator of success (Lox et al., 2010). Vicarious experiences are a limiting factor as few of the participants in the study are aware of professional
female fighters that could be considered a role model; however, FP-6 did indicate that she would strive to increase her technical skills to match that of a female trainer working at Adrenaline. Three of the four factors that influence self-efficacy directly apply to results found in this study, and there is a weak relationship between the fourth. These finding suggest that self-efficacy is a secondary motivation for female participation in MMA.

Self-efficacy can be defined as an intrinsic motivational factor, based on correlation between interview results and the questioned listed on SMS-6 (Mallett et al., 2007). Participants indicated that learning a new skill set is one of the factors that make MMA related classes satisfying. Although all thirteen participants stated possible health benefits as an original motivation, the intrinsic components of the sport related to mastering a new skill appeared to take a more dominant role in terms of motivations. This was exemplified by FP-1 when she exclaimed, “I liked more technical and less cardio over time”, indicating a shift in motivations towards mastery of a skill. The participants in the study also indicated that learning new skills and simply improving acquired skills is a motivational factor for continued participation, as stated by FP-13, “I thought it would be a good skill to learn and I think learning a skill is important”. The correlation between the SMS-6 and interview responses suggests that the internal nature of self-efficacy is an increasingly more dominant predictor of continued enrolment among experienced participants.

Social Interaction

For many of the female participants, social interaction seemed to be a critical factor in their enjoyment of MMA training. The familial atmosphere and the opportunity to spend time with current friends as well as meet new people were echoed by a number of participants. For instance, FP-5 began training at Adrenaline Training Centre with her sisters in the Kickboxing
class, and that allowed her to maintain a level of comfort in the atmosphere. She also met her current significant other while at the gym, and now is able to train with him as part of their relationship. FP-11 had a similar experience, stating, “It’s also like a family in here. You get to know everybody and you see everyone often. (It's) a sense of community.” For some of the participants, the main purpose of training in MMA at Adrenaline Training Centre was the social interaction they shared with peers in their classes. FP-9 stated, “Hanging around with friends is the main purpose for me,” while FP-8 said that the facility was “... like Cheers without the alcohol”. FP-2 stated the she felt that they were a family, and the participants would spend time together outside of the gym settings. In addition, FP-4 said the she would organize social events such as having her friends from the class over to her place to watch a UFC event. For FP-1, self-motivation was simply not enough for her to take part in the Kickboxing class, but participating with familiar peers every week served as a strong form of motivation.

This social interaction component has a minimal relationship in regards to the SMS-6 scale. There is a connection made with just one of the four questions posed in the 'Identified Regulation' portion of the scale which asks to rate the statement "Because it is one of the best ways to maintain good relationships with my friends" (Mallett et al., 2007, p. 612). However, there are not any more statements that use social interacting or group motivation as a factor in sport participation, so we can set social interaction as a unique component outside the SMS-6 scale. This is interesting considering social interaction has been considered one of the primary motives amongst sports participants (Won & Park, 2010). Further, the data appears to be in line with previous research citing social interaction as an important factor in female sport participation (Dixon, 2009; MacLean & Hamm, 2008; Perry et al., 2011; Simmons & Dickinson, 1986).
Social interaction as an indicator of participation is particularly interesting for MMA, which is technically an individual sport at the competitive level. However, the group setting involved in training is prolific in this particular sample, and this is reflected in the data. It should be noted that four out of the thirteen participants did not mention social interaction as a motivating factor in their participation. As such, it did not prove to be as strong a motivating factor when compared to other factors including overall enjoyment, health and fitness, and self-efficacy. Interestingly, nine of the participants were also not interested in the competitive aspect of the sport, and were training recreationally instead.

**Female Acceptance**

Despite the fact that MMA is a male dominated sport, and the majority of those training at Adrenaline were male, many females expressed a feeling of acceptance at the facility. The women acknowledged that they were challenging traditional hegemonic gender norms simply by training at an MMA facility, as FP-10 stated: “most of my friends are female so they don’t really assume they could ever come to a place like this…because it’s very male dominated.” Changing women’s beliefs about perceptions of male-dominated training facilities will be a key focus point for future development of females training in MMA and other traditionally masculine sports.

The female participants explained the extreme level of comfort they felt at Adrenaline, despite it being a male-dominated facility. FP-12 described her experience:

“I didn’t come in here as one of the skinny girls so I was a bigger girl and I was like oh God, how are they going to treat me because I’m not the typical athletic little girl [but] it’s been amazing. The guys have always been like – I just feel really good coming here. They’re great bunch of guys and I’ve never felt uncomfortable coming here.”
It appears that a necessary component of females’ participation in MMA is dependent on a welcoming environment for them to enter. Some of the women expressed that the males not only accepted the females, but encouraged them to get more involved in the sport, as FP-2 explained: “They included me right away, they would take the time to teach me things and they treated everyone equally.” It appears the males training at this facility are not excluding women from participating in MMA. If we assume that the male participants are also spectators of MMA, then this observation contradicts previous research showing male spectators discouraging women from participating in traditionally male sports (Cuneen & Claussen, 1999; Fink & Kensicki, 2002; Jollimore, 2002).

**Empowerment.** Many females acknowledged that their participation in a male-dominated sport such as MMA was looked at as unusual and often misunderstood. FP-13 described the reaction of her peers when she began training:

“[People say] like ‘you’re a mother in the gym and you’re fighting like beating the crap out of each other.’ And I’m like it’s totally not like that right. There’s so much respect to it and it’s just so great.”

This could be perceived as a form of empowerment in participating in a traditionally male sport, especially one, such as a combat sport, where striking is considered of dominant male hegemonic masculinity (Hirose & Pih, 2010). Although the males were accepting at Adrenaline Training Centre, some of the females expressed how the men at the gym still held traditional hegemonic beliefs, as FP-4 explained: “A lot of the guys here they don't expect it when they see little me, and they hear bang, you know; yeah I can do that!” This reinforces Guerandel and Mennesson’s (2007) research that within training environments, women’s bodies are still perceived and positioned as weaker than their male counterparts. Females can challenge these perceptions and
assumptions through what is referred to as thawing the frozen female body (Dowling, 2000; MacKinnon, 1987). The frozen female body conforms to traditional hegemonic beliefs, including those that perceive the female body as weak and incompetent. The thawing occurs when these traditional gender norms are challenged and the females do not comply to notions of subordination within traditional masculine culture.

While these interview statements do not point to a particular source of motivation, they demonstrate a possible constraint to beginning participation in MMA or traditional male sport, which will be discussed later.

**Self-Defense**

Four of the participants mentioned that MMA also provided them with a form of self-defense. Specifically, it gave them the confidence to know that if they were in a dangerous situation, they would be able to defend themselves appropriately if need be due to the training. FP-2 stated that she had previously worked at a bar in a 'rough' area and that she felt more comfortable in that environment because of her MMA training. FP-13 indicated, “I got into (MMA) because I wanted to learn how to defend myself.” Additionally, FP-4 said, “I feel better about myself, that I could defend myself if I'm in a situation where I feel physically threatened.”

We should define self-defense in this context, which would not be as traditional skills learned in a self-defense course, but the Kickboxing concepts that increases the self-confidence of these participants, should they need to defend themselves. This applies to the identified regulation portion of the SMS-6 model where the activity is considered valuable and important to the individual because it is useful and can develop other aspects of her life. The increased confidence the individuals felt outside of the gym is evidence of this relationship. The type of motivation expressed here is labelled as somewhat internal (see Appendix B). However, the
majority of those sampled did not express feelings of self-defense in their interview, concluding that in this particular study there was not a strong influence of self-defense as a motivator for MMA participation.

**Constraints to MMA Participation**

Many of the participants noted certain factors that limited their participation in MMA training. As mentioned before, two examples of intrapersonal constraints related to female participation include time and individual knowledge. Six of the female MMA participants stated that time played an important role in their ability to make it to the gym throughout the week. These results are similar to Rintaugu and Ngetich's (2012) research, where their participants also noted that a lack of time was a factor in hindering their sport participation. Interestingly, this research showed that lack of time was second to lack of motivation, which was the most noted constraining factor to participation. This could be due to the difference in samples, as Rintaugu and Ngetich's study looked at over 100 students in a university, while our results were all from females who were currently participating in sport (in this case, MMA). None of the MMA female participants cited a lack of motivation as a deterrent from their participation. However, they noted other lifestyle factors or priorities such as work and family commitments as limiting factors on their ability to participate in MMA. A number of participants were mothers, while others also stated that scheduling their time around children and work while attempting to train at Adrenaline was challenging. In addition, just under half of the respondents claimed that the lack of skilled or experienced peers as well as the minimal overall participation in female classes was negative from both a logistical and enjoyment standpoint. For example, FP-6 said it would not be worth it to keep the facility open for extended periods of time because there are not enough females to fill the ladies-only classes, while FP-5 claimed that it could be frustrating at times to
not have training partners in the class who are at the same level because it didn't allow her to challenge herself in the class as much. This can lower the self-efficacy portion of the motivations mentioned before, as having an unskilled partner may hinder one's ability to continue accomplishing more difficult or complex skills in the class, and may also stop one from pushing themselves to reach an optimal physiological or affective level. One respondent who takes part in Jiu Jitsu classes stated that she has to sit out of certain portions of the class at times, and does not get nearly as much training in as her male peers. These responses relate to the amotivation section of the SMS-6 (see Appendix B) in that the subjects do feel some reservations about their participation in MMA because of the lack of enjoyment and inability to succeed due to these factors. FP-3 illustrated this point, explaining that the overall the lack of females in MMA makes it harder to find competitive opportunities for females.

Additionally, it appeared that many of the participants were intimidated or afraid of how the men at the facility would treat them when they first began participating, but these feelings stopped almost immediately after commencing training. However, this intimidation factor could relate to a constraint on beginning training in MMA. For instance, FP-9 stated that while she does not believe guys are watching her, some girls do and it can make them uncomfortable. However, she went on to describe that she enjoys working out with the men and learns a lot, even if they try to show their toughness in front of her. Other participants said that males in other classes may have been apprehensive or did not want to work with women, while FP-5 felt that being the only girl in the Jiu Jitsu class led to some of the males taking an opportunity to inflict pain on her. However, she did also state that these were the minority in the class, but she still had to sit out of certain portions of the class sometimes due to her lack of comfort in
participating with them. As stated in the female acceptance section, our study participants felt that overall the male members of the facility were welcoming and inclusive.

Thus, female MMA participants in our study were most constrained in their training due to time, lifestyle factors as well as the lack of females and low skill-level of their peers in the classes. This could affect their self-efficacy, and lead to amotivation as described by the SMS-6 (see Appendix B). It was also found that female participation could be hindered by the perception of male intimidation, but this constraint's effects decreased due to the inclusivity maintained by the staff of the facility and male participants themselves.

**Conclusion**

Despite drawing data from a small number of participants, analysis of the information provided an empirical look into female participation in MMA. Thirteen interviews involving female members of Adrenaline Training Centre provided insight into the motivations influencing female participation. All thirteen individuals’ involvement consisted of participating in a Kickboxing class, and three individuals were also involved in Boxing, Jiu Jitsu or Muay Thai. The most common means of introduction to Adrenaline was word-of-mouth, and twelve of the thirteen participants joined the gym because they knew somebody that was a member at the time of their enrolment. Despite the increasing popularity of MMA and increased level of participation only 54% of individuals interviewed for the study had a female role model in the sport. It was revealed that enjoyment of the sport, health and fitness, and self-efficacy were significant motivating factors for MMA participation amongst our sample, while female acceptance and an inclusive environment, female empowerment, and self-defense were also stated as motivating factors. Time and lifestyle factors served as the main forms of constraints
for this sample, while the lack of skilled peers and small classes as well as male intimidation factors were also identified as possible inhibitors to participation.

**Limitations**

There are limitations to this study, as well as avenues for future research. First, the sample size was limited to female participants at one MMA training facility. It would be difficult to generalize this sample across other training facilities, MMA participants, or geographic locations, as the intricacies of Adrenaline Training Centre may render different trends from the data. Further, our initial recruiting took place in the women's-only Kickboxing class, for which there was a pattern of mostly recreational subjects (see Table 1). Because of this, our motivations for participation applied to mostly recreational participants, but the results are not necessarily indicative of these same motivations for competitive females. In addition, the participants of our study all had 3.5 years or less of experience training in MMA (average experience of 1.74 years). Our results may have been different with more experienced participants, which should be considered as well. The interviews took place in the MMA training facility itself, and were done wherever the researchers and subjects could find adequate space as well as an appropriate amount of quietness. However, this atmosphere was not necessarily ideal for conducting an interview, as the noise level as well as activity going in the background of the facility may have been distracting and affected the depth of the answers of the interviewee as well as the length of an interview. A quieter, more isolated space would have been ideal for more in-depth interviews. Also, due to time constraints we were unable to analyze preliminary data and conduct secondary interviews that may have allowed for more probing of the participants. Additionally, because data collection tended to take place before or following the Kickboxing class, the recency effect may have impacted the results. Subjects may have been
excited as they prepared to take the class, or felt exhilarated following the class which may have impacted their answers to the questions. If the interviews were conducted on days in between classes or later in the week, there is a possibility that results would have been different.

Another limitation in our methodology was the utilization of the SMS-6. While it was helpful in the creation of our interview questions and acting as a guide for our results, it was difficult to extrapolate the results of our data into the categories given by the SMS-6. Because the study participants did not actually answer the questions on each section of the SMS-6, we could not explicitly state that our participants fell into a category, but that there was simply a correlation. Further, categories such as 'female acceptance' and 'social interaction' did not correlate with any of the SMS-6 categories listed, so we went outside of the model as we did not want to be limited in our findings of this exploratory study. Our final limitation is that within the 'self-efficacy' section, we found that our participants had a relationship with one or two but not all four of the self-efficacy factors. Thus, while we again found a trend towards self-efficacy amongst this group, it is difficult to judge how significant the relationship is.

**Future Research Directions**

There are numerous future research avenues that could be explored pertaining to female motivations for participation in MMA. While our study was comprised of mainly recreational or entry-level competitive fighters, there could be more of a focus on why seasoned fighters choose to compete in MMA. This could include what motivating factors played a role in influencing them to move into the competitive stream of MMA after they began in recreational classes or training. While Adrenaline has offered a women's only program over the past number of years, another avenue of research could observe the response to women participating in a program that has just begun and measure its success and retention rates over its start-up period. Similarly,
research could also evaluate dropout rates of women who previously participated in an MMA class or program and what possible de-motivating factors played a part in their decision to stop. In addition, longitudinal studies could be conducted to measure trends and changes in motivational factors amongst female participants in a specific training facility or across a number of different facilities. Another area of exploration would be to determine the socio-economic status (SES) of female MMA participants and discern whether household income or other indicators of SES play a role in motivating MMA participation. Another point of issue is the perceived fears and intimidation expressed by the female participants at the beginning of their training and how this could be a significant barrier to beginning MMA participation. Future research that analyzes the perceived culture of MMA facilities as a place create for heterosexual men where others are not welcome could assist in conquering some of these perceptions that could may serve as a barrier to women’s MMA participation as well as empowering female participants.

Implications for Sport Managers

The findings from interviews with the female sport participants in the study drew possible implications for sport managers. First, it was shown that word-of-mouth was the most effective means of promotion in recruiting female participants. Therefore, the gym could provide incentives for current members to inquire within their networks in order to recruit new members, specifically female participants. Furthermore, due to constraints that may lead to female restraint to pursue a male-dominated environment for classes, external exhibits and demonstrations could be utilized to garner interest and ultimately recruit female participants.

Second, it was also found that the inclusion of a women’s-only class provided benefits for increased female participation. It built comfort for the females within a male-dominated
environment and overcame the constraints of females not feeling comfortable with male training partners, not having training partners similar skill levels, or worried about male judgments and biases during training. In addition, most female participants in the study were recreationally focused, so the classes can be catered to the identified group. Learning a new skill and increasing self-efficacy was important for female participants in the study so once recruited, MMA training programs are conducive to increasing identification and consumption (i.e. participation) of female participants by satisfying their motivations for health and fitness and working to satisfy higher-level motivations such as technical ability through increased participation.

Third, health and fitness was found to be the top motivator for female participation in MMA training for the study. When promoting, advertising, and recruiting female participants, gyms, clubs, and organizations can focus on health and fitness factors such as getting active and living a healthy lifestyle, weight loss and body image factors, as well as stress relief. Other factors including empowerment of females and female acceptance are important for the success of female participation. The culture of the gym, club, or organization must be welcoming to all participants and promote social interaction between the female participants, male participants and the trainers at the gym to develop positive relationships.

Finally, MMA organizations need to be aware of the time constraints of female participants by placing classes at times that allow for optimal participation. Many of the female participants in the study stated that the time the class was held at Adrenaline Training Centre was optimal (5:00 p.m. – 6:00 p.m.). Organizations can also utilize the combination of alternative classes for kids and males so that females are not excluded due to family (lifestyle) constraints. While the female participates in her training, her husband and/or children could be participating
in classes as well. Other classes such as couples classes could be utilized to increase female participation through recruitment by significant others that may already participate at the gym or by offering couple-oriented activities that could be attractive to participants.
References


WOMEN'S MOTIVATIONS FOR MMA PARTICIPATION


Appendix A

Figure 1: The Continuum of Relative Self-Determination taken from Katartzi and Vlachopoulos (2011)
Appendix B

Figure 1: The Sport Motivation Scale-6 (SMS-6) (adapted by Mallett et al., 2007)

### Appendix. Sport motivation scale-6

Using the scale below, please indicate to what extent each of the following items corresponds to one of the reasons for which you are presently practising your sport.

<table>
<thead>
<tr>
<th>Does not correspond at all</th>
<th>Corresponds a little</th>
<th>Corresponds moderately</th>
<th>Corresponds a lot</th>
<th>Corresponds exactly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

*Why do you practice your sport?*

1. For the excitement I feel when I am really involved in the activity  
2. Because it’s part of the way in which I’ve chosen to live my life  
3. Because it is a good way to learn lots of things which could be useful to me in other areas of my life  
4. Because it allows me to be well regarded by people that I know  
5. I don’t know anymore; I have the impression of being incapable of succeeding in this sport  
6. Because I feel a lot of personal satisfaction while mastering certain difficult training techniques  
7. Because it is absolutely necessary to do sports if one wants to be in shape  
8. Because it is one of the best ways I have chosen to develop other aspects of my life  
9. Because it is an extension of me  
10. Because I must do sports to feel good about myself  
11. For the prestige of being an athlete  
12. I don’t know if I want to continue to invest my time and effort as much in my sport anymore  
13. Because participation in my sport is consistent with my deepest principles  
14. For the satisfaction I experience while I am perfecting my abilities  
15. Because it is one of the best ways to maintain good relationships with my friends  
16. Because I would feel bad if I was not taking time to do it  
17. It is not clear to me anymore; I don’t really think my place is in sport  
18. For the pleasure of discovering new performance strategies  
19. For the material and/or social benefits of being an athlete  
20. Because training hard will improve my performance  
21. Because participation in my sport is an integral part of my life  
22. I don’t seem to be enjoying my sport as much as I previously did  
23. Because I must do sports regularly  
24. To show others how good I am at my sport

### Key

- **Amotivation**: 5, 12, 17, 22
- **Identified Regulation**: 3, 8, 15, 20
- **External Regulation**: 4, 11, 19, 24
- **Integrated Regulation**: 2, 9, 13, 21
- **Introjected Regulation**: 7, 10, 16, 23
- **Intrinsic Motivation**: 1, 6, 14, 18