

# HEIDI EGGLETON AND DEREK SKEA

# WOMEN'S PERCEPTIONS OF HOW MARTIAL ARTS INFLUENCES THEIR PSYCHOLOGICAL WELL-BEING

## ABSTRACT

This study explores how martial arts and combat sports (MACS) can influence women's perceived psychological well-being. Through the use of semi-structured interviews, encapsulating the stories and experiences of eleven women who practice various MACS disciplines, four themes can be distinguished. Firstly, increased self-confidence; secondly, increased self-acceptance, particularly with regards to women accepting their body image and identity; thirdly, positive development in relationships with immediate family; and lastly, an increased sense of belonging through mostly gendered and multigenerational friendships. While some women felt indifferent about gender in MACS, several reported that negative experiences with men posed a threat to the benefits MACS could hold for their well-being.

## CONTRIBUTORS

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## KEYWORDS

Martial arts, women, psychological well-being, self-acceptance, belonging, self-confidence, family, body-image, identity.

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This study seeks to explore how MACS (martial arts and combat sports) may influence women's perceived psychological well-being. The existing body of literature recognises that MACS can increase psychological well-being (Vargas, 2019; Vertonghen & Theeboom, 2010), and this study offers evidence to both support and critique the thesis. By focussing on lived experiences through qualitative exploratory interviewing of women as a marginalised gender within MACS (Follo, 2012), the study seeks to answer this core question: 'How does MACS influence the perceived psychological well-being of women?'

Psychological well-being is a spectrum of positive constructs which include the elements of purpose, relationships, and confidence (Adler et al., 2017). These constructs of mental health include emotional and social well-being, and it is not uncommon for the terms well-being and mental health to be used interchangeably. This study seeks to enable fluidity and exploration of psychological well-being and mental health, using the definitions as guidelines rather than fixed terminology. This allows for some interpretation by participants sharing the ways in which they perceive MACS influencing their psychological well-being. In positive psychology, well-being integrates hedonic (happiness and enjoyment) and eudemonic concepts (purpose and meaning) (Adler et al., 2017). Seligman's positive psychology theory model indicates well-being as the positive emotion, engagement, relationships, meaning, and accomplishment (PERMA) model (Adler et al., 2017; Seligman, 2018). Croom (2014) observes that while research has offered indications that MACS promotes psychological well-being, they are yet to be integrated using the PERMA model.

MACS is an umbrella term used for a wide array of martial arts and combat sports. Channon and Jennings (2014) highlight that there are differences and similarities between individual MACS. Differences include the level of contact participants make while practising. For example, in mixed-martial arts (MMA), the aim is to physically fight your opponent using strikes, kicks, and grappling. Comparatively martial arts such as tai chi are lower-impact and focus on flowing motions and breathing rather than intense physical contact. This article acknowledges the differences among MACS and offers no overt comparisons between them. However, the article does draw attention to the homogeneous nature of MACS when practised as recreational sports and hobbies. That is, MACS have several important shared characteristics, such as that they are embodied activities that can provide a space to develop self-knowledge and personal transformation (Channon, 2018). Another similarity amongst MACS is that they all have some relation to the act of fighting; their implied intention is to improve a person's ability to physically dominate others, or resist attempts at being dominated. This parallels constructs of masculinity, particularly themes of power and physical dominance, and as such all MACS become similarly interesting for gender-based analysis. Channon and Mathews (2015) define recreational MACS to include elements of self-defence, fitness, and inter or intra-club sparring or demonstration opportunities. They also draw attention to

recreational MACS participation varying from casual on-off attendance to more serious participation.

While this study focuses a spotlight on women in MACS, it does so homogeneously. Although gender is a key characteristic shaping an individual's experience and perception, it is not the only influencer. This study acknowledges such limitations and the need to give a platform for intersectionality, specifically including characteristics such as religion, race, class, nationality, and sex and how they influence women in MACS.

Along with others, this study builds on others demonstrating ways in which MACS positively influences psychological well-being more broadly. Through the literature it acknowledges how research can often focus on the experiences of men as distinct from women (Bell, 2008; Moore et al., 2020; Vargas, 2019; Vertonghen & Theeboom, 2010). Thus, this study seeks to capture stories of women and their experience of MACS in influencing their sense of wellbeing. However, the study recognises socio-cultural gender norms that may impact women's sense of well-being as a direct consequence of their experiences in MACS.

## MACS, WOMEN, AND PSYCHOLOGICAL WELL-BEING

The research of Channon and Matthews (2015), Blomqvist Mickelsson (2020), Silva and Quaresma (2019), Viet and Browning (2021) and Weaving (2014), among others, indicate a growing popularity and interest in the practice of MACS and its potential for improving well-being. Although a traditionally hegemonic masculine domain (Follo, 2012) and a largely male-dominated activity (Lindsay et al., 2023), women's participation in MACS has increased in recent decades (Kavoura et al., 2012; Weaving, 2014). A key influence has been gender mainstreaming, for example women's boxing in the 2012 Olympic Games (Channon & Matthews, 2015). This and other initiatives have increased the opportunities for participation by women and girls, which Channon and Matthews (2015) acknowledge has validated and legitimated their practice of MACS "as part of the cultural landscape of contemporary sport" (p. 2).

While women's participation in MACS is increasing, there remain inequalities in participation, impacting upon motivation and overcoming the barriers to access. Bevan et al. (2020) argue such barriers can be deeply rooted in socio-cultural gender constructs. Channon and Matthews (2015) evidence the hierarchal formation of gender in society. Criado Perez (2019) observes that while globally gender norms are slowly shifting, they still largely privilege men. Women do more domestic work, including childcare, and spend a greater amount of time in the family home and spend less time on recreational activities. This begins during adolescence, where girls are more likely to drop out of sports activities than boys (Channon & Matthews, 2015).

A key motivation for women beginning MACS is to learn self-defence. Angleman et al. (2009) recognise that in earlier studies of women and MACS a greater emphasis was on self-defence rather than as a sport and aid to well-being. Much recent literature

emphasises feminist self-defence and empowerment through trauma-informed martial arts. Hollander and Beaujolais (2023) discuss empowerment self-defence (ESD) which combines physical techniques and verbal confrontation skills. As well as reducing violence against women and increasing gender justice, ESD has been found to change women's self-perceptions. Alongside ESD, literature draws attention to empowerment-based MACS, often highlighting positive transformations in women's psychological well-being. For instance, the trauma-informed boxing project 'Shape Your Life' is one example that highlights how MACS can significantly improve mental health outcomes of women (Gammage et al., 2021). While these examples focus on women-only training spaces, other literature explores mixed-training environments and its potential benefits, such as the opportunity to challenge or ignore gender norms (Channon, 2014). Maclean (2017) found that mixed-gender training can challenge sexist interpretations of women's bodies and provides women with the opportunity to be equal and mutually respected by men. On the other hand, Lindsay et al.'s (2023) review paper found mixed-gender training can be problematic. One reason for this could be men fearing being overpowered by a woman, and consequently acting more aggressively than necessary in mixed training encounters (Channon, 2018; Mierzewski et al., 2014; Lindsay et al., 2023). While ideally MACS are built on a foundation of respect, control, and discipline (Lafuente et al., 2021; Viet & Browning, 2021), they often simultaneously foster a hegemonic masculine environment composed of egos, athleticism, and competence biases (Follo, 2012).

Some studies overlook gendered experiences, notably Croom (2014), Lafuente et al. (2021), Veasey et al. (2022) and Vertonghen and Theeboom (2010). Bird et al. (2019) indicate that integrating MACS with psychotherapy can improve men's mental health. Blomqvist Mickelsson (2020) acknowledges how mixed martial arts carry a risk of increased aggression among young boys and men. At the same time, he indicates that the practice of Brazilian jiu-jitsu (BJJ) can reduce aggression. This is somewhat contradicted by Reynes and Lorant (2004) who found judo, a very similar discipline to BJJ, to increase levels of aggression amongst boys. Despite these mixed findings, Vertonghen and Theeboom, (2010) analysed the overall social-psychological outcomes of MACS on youth and identified them to be generally beneficial.

Resilience and social relationships are focussed on in several MACS studies (Bell, 2008; Greco et al, 2019) rather than overall psychological well-being. Vargas (2019) found people who participate in MACS experience positive effects across a range of psychological well-being and mental health factors. However, Vargas' (2019) study still lacks the gendered lens this study is built on.

Using psychological theories, Tadesse (2017) supports the view that MACS training increases the psychosocial well-being of adolescents. Tadesse (2017) uses Glasser's choice theory to demonstrate how MACS can help adolescents meet the five fundamental needs: power, belonging, survival, freedom, and fun. Glasser's theory is rooted in mental health and positive

relationships with others (Onedera & Greenwalt, 2007). Tadesse (2017) indicates how MACS training can fit in with Maslow's hierarchy of needs, drawing similarities with Glasser's theories and aligning them with aspects of training. Glasser's theory in a MACS environment includes physical exercise, belonging to a community, and enjoyable activities. Tadesse (2017) draws links seeing self-actualisation as the ultimate goal in both MACS and Maslow's theory.

The significance of relationships among immediate family members is a key component of psychological well-being (Bell, 2008; Tadesse, 2017), yet too few MACS studies reflect on family relationships. One exception is a study by Lantz (2002) who found MACS provides positive family development. Green's (2016) five-year ethnographic study about men in mixed martial arts mentioned family life briefly. Studies exploring family relationships tend to focus on children. For instance, Greco et al.'s (2019) study of 14–16-year-olds on a twelve-week karate course found significant improvement in relationships amongst them and with their caregivers; as social relationships developed, psychological well-being improved.

MACS are accessed for recreational and professional purposes, and there can be variation in how they influence psychological well-being. An example of this could be within perceptions of body image. A review by Sabiston et al. (2019) found that participation in sports was related to a more positive body image, but how body image can either be a protective factor or a deterrent for sports. Bueno et al.'s (2022) systematic review showed how competitive martial arts practice can lead to an increased risk of developing an eating disorder. This risk is largely due to the focus on body weight for categorisation and the pressure that is associated with weight classes (Channon & Matthews, 2015). It should be acknowledged that this study solely focuses on women who participate in martial arts recreationally, accessing clubs and training opportunities through their local community, and not for professional purposes.

Jennings (2019) acknowledges a light and dark side to MACS. The 'light' side reflects the benefits of MACS training, such as an increase in physical fitness and a sense of belongingness. The 'dark' side includes potentially injurious training, such as outdated practices like doing press ups on fingertips or punching hard objects like wood. Viet and Browning (2021) recognise how MACS can be criticised as a problematic activity. This claim is partially fuelled by stereotypes formed from popular MACS movies which show high levels of violence and aggression, patriarchy, and conflict resolution through violence (Bowman, 2020). More recent studies draw our attention to reframing the concept of violence within MACS, particularly mixed martial arts (Brett, 2017). Harwood et al.'s (2017) meta-analysis highlights that MACS are becoming widely recognised not only as an intervention to reduce of violence and aggression, but one that increases social and emotional wellbeing. Maclean (2021) explores how karate helps people move on from emotional trials (such as abuse, bereavement, and mental health) by engaging in reflexivity; how we think and feel through an activity, e.g. karate.

Jennings et al. (2022) acknowledge that as well as being potentially dangerous, MACS can be healing and therapeutic. Indeed, Van der Kolk (2015) suggests MACS can be beneficial as a form of trauma therapy. While this is still largely under researched, certain elements within martial arts practise align with approaches used in talking therapies. Lukoff and Strozzi-Heckler (2017) highlight how Aikido embeds mindfulness, a popular psychological tool used in interventions such as acceptance and commitment therapy. Vargas (2019) illustrates in nine participants the psychological effects of MACS after interpersonal traumas. Vargas (2019) affirms MACS can promote a sense of purpose, achieve community and belonging, supports people coping with stress, and develops stronger family relationships.

A large body of literature draws attention to understanding gendered participation in MACS and its impact on psychological well-being. Particularly when thinking about well-being and mental health, this study seeks to explore women's perceptions of their MACS experiences.

## METHOD

### Participants

11 self-identifying women, aged 18 and over who practise MACS, were recruited to the study. Participants were aged between 19 and 63 years old and live in the UK. Demographic characteristics included training in MACS for at least two hours a week for a minimum of 6 months. The shortest time a participant had been training was 18 months, and the longest was over 25 years. The MACS practised by participants were Karate, Taekwondo, Kung Fu, MMA (mixed martial arts), Muay Thai, Kickboxing and Brazilian Jiu-jitsu. Details of the participants are provided below in Table 1.

### Design

This was a qualitative study with the aim of developing a clearer understanding of how MACS affects the psychological well-being of women. The data collection method was semi-structured by individual interviews. In qualitative research this is a primary method of data collection (Flick, 2018). As a method it enabled the participants to share their stories and lived experiences freely and elaborately.

### Materials

Participants followed an interview schedule and answered the same ten questions. As advised by Flick (2018), follow-up, probing questions were asked, which depended on how the participant answered each scheduled question. The questions allowed participants to contribute and talk sufficiently about the topic. The questions were inspired by previous academic studies including Vargas (2019) and Jiménez and Orozco (2021). The duration of interviews ranged from 22 minutes to 56 minutes.

### Procedure

Brunel University Research Ethics Committee approved the study. Participants were recruited through a social media advert, specifically from Facebook pages either they or their MACS coach saw. The sample size of eleven, as recommended by Braun and Clarke (2020), was small enough to be managed within the timeframe of this study but large enough to provide sufficient data for analysis (Fugard & Potts, 2015). Interviews were conducted online using MS Teams and were audio-recorded in line with Brunel University's data protection policy framework. One contributing factor to the duration of the interviews was dependent on the speed with which participants spoke and how much they had to say. The data collection process took two weeks to complete and subsequently interviews were transcribed and anonymised ready for analysis.

### Ethical Issues

The participants were given a Participant Information Sheet (PIS) and a consent form to sign. The consent form was returned prior to the interviews where they also gave verbal consent. Pseudonyms ensured anonymity for participants: Kyra, Lotty, Daisy, Francesca, Aadila, Fatima, Issie, Sophie, Grace, Yusra, and Erin. To ensure confidentiality the audio-only recordings were deleted after transcription. Up until data analysis, participants understood they could withdraw from the study. Participants were given time to read the PIS and reminded of their right to ask questions at any time. Following the interviews, participants were emailed a debrief sheet.

### Analysis

Thematic analysis (TA) (Braun & Clarke, 2006; 2020) was chosen to enable the experiences of women in MACS to be shared. TA is a method widely used in qualitative psychology studies as a pattern-based approach. This study followed the 6-phase framework provided by Braun and Clarke (2006) to identify themes through analysis from the data set. The first step was to re-read the transcriptions to familiarise with the data. The second step generated the codes and placed data into meaningful groups by reviewing data from across the set. Which, in step three, were then sorted into potential themes including miscellaneous and sub-theme ideas. The fourth step reviewed the themes, including designing a thematic map to refine themes and remove themes lacking supporting evidence. The fifth step renamed and defined the themes and lastly, the sixth step identified extracts from the data set.

## RESULTS

The results section is divided into four themes: self-confidence, self-acceptance, positive relationships with immediate family, and sense of belonging.

Table 1. Participant information.

Pseudonym	Martial Art	Years of Practice	Age	Family Status
Kyra	Karate	10	36	Married with children at home
Lotty	Taekwondo	19	57	Married with children at home
Daisy	Kickboxing	2	28	Single, living independently
Francesca	Karate	20	58	Married with adult children
Aadila	Jiu Jitsu, MMA, kickboxing, kung fu	1 ½	40	Single with children living at home
Fatima	Jiu Jitsu	4	19	Single, living with parents
Issie	Tai Chi and Kung Fu	27	63	Living with a partner; children unknown
Sophie	Kickboxing	2	25	Living with parents
Grace	Muay Thai, Kickboxing	10	29	Living with a partner
Yusra	Jiu Jitsu	3	24	Living with parents
Erin	Karate, kickboxing, MMA, taekwondo, and kickboxing	11	19	Living with parents

**Theme 1: Self-confidence**

All participants were asked how they defined confidence, and many spoke about it before being asked. The participants defined confidence as believing in yourself and feeling safe and comfortable fulfilling daily activities such as going to work, training, or walking home at night. Participants believed MACS training had increased their confidence levels. Issie, Erin, and

Kyra said it had “massively” improved their levels of confidence. Fatima said, ‘My confidence has improved’. In addition to increasing confidence because of MACS training, it also acted as a primary motivator for starting the sport. An example of this is Daisy:

I wanted to do something that would help with my self-confidence, something that made me feel a little bit more, like, physically confident, like if I needed to defend myself...it's kind of like knowing that I had, like, some awareness of a combat.

Participants regularly referred to self-defence being intertwined with their confidence levels. Yusra exemplified this well: 'you do feel much more comfortable walking home late at night or even just asserting yourself in certain situations'.

Participants acknowledged a point of conflict in their MACS training. While feeling more confident in their bodies, anxiety and a sense of vulnerability continued to affect them, particularly when out in public spaces. Aadila says:

...Really made me think so much about like my safety again in a kind of mix of ways of sometimes feeling like safer and more capable and sometimes really realizing like my vulnerability...“Could I actually do this stuff that I'm training to do?” Sometimes that has made me feel quite anxious...but I think overall it has helped me feel more physically confident.

The results show participants' perceived levels of confidence have increased because of their training. This is not a new concept, as demonstrated in Lindsay et al.'s (2023) review paper. Further studies have found having greater confidence to fulfil daily activities increases well-being. Specifically, Ettema and Smajic (2014) found that positive social experience is influenced by someone's perceived safety when walking or using other methods of transport.

### Theme 2: Self-acceptance

This study indicates MACS can increase women's self-acceptance. Recognised as dimensions of psychological well-being (Adler et al., 2017; Ryff & Keyes, 1995), contentment with yourself, your abilities, body image, and identity are the key components of self-acceptance.

Aadila recognised 'It's okay to be rubbish at stuff', indicating an acceptance of weakness without losing a sense of positive experience. Whether participants perceive themselves to be good at MACS or not, they still 'love' going. Participants recognise their peers' talents in MACS, and instead of feeling jealous, feel content with themselves. Lotty says 'by no means am I Yoda. I love it. I'm the best that I can be, not the best'. In this study, women often referenced their weaknesses but concluded they were content with them, emphasising how MACS can nurture self-acceptance.

Identity plays a key role in self-acceptance as a person chooses to be accepting of who they are. Participants vocalised how MACS helped shape their identity. Sophie said 'I do a bit of cycling and stuff, but I wouldn't call myself a cyclist, but I would call myself a kickboxer'. Results show a high level of commitment to MACS and how it can infiltrate other parts of women's life and consequently her identity. Lotty said MACS is just 'part of life for us now' and how it's 'part of you' for Issie. Literature suggests participation in leisure activities encourages the development of

self-identity, this in turn can contribute positively towards psychological well-being (Trainor et al., 2010; Winstone et al., 2020).

The sub-theme of body image explores how MACS positively influences the way in which women may perceive and accept their physical selves. Participants referred to societal and cultural pressure they felt was often placed on them as women but were often quick to dismiss them. Grace said '...we're not fragile, we're really strong...'. Lindsay et al., (2023) review suggests how MACS can successfully challenge gendered stereotypes of women, and that this can begin by women simply being in the space. As a result of her MACS training, Daisy said 'how people are perceiving me doesn't matter so much'.

Participants in this study were often proactive in recognising how their body looks is irrelevant in their MACS space. Aadila comments 'It's not about like...body image or losing weight or anything like that'. Participants acknowledge how they look doesn't influence how they train. For Yusra, this involved not worrying about how she looks at MACS:

Sometimes on the mats... you look a complete mess, and just recognizing that there's nothing wrong with that. It's fine to look messy. It's fine to look unkempt... it's part of being a person. I think, again, as women, I think we're expected to always look really nice and be really sweet and be very friendly and I think jiu jitsu just taught me that you don't have to be like that and that's completely okay.

Body image as a facet of self-acceptance can be influenced by social norms. MACS has guided Yusra and other women to have a positive body image, arguably liberating them from the restrictive nature of those norms.

### Theme 3: Positive relationships with immediate family

The theme of positive relationships with immediate family explores how MACS influences the relationships women have with their children, partners, parents, and siblings. Participants were motivated to start MACS by their immediate family. Kyra, Lotty, and Aadila, took their children, particularly their daughters, to MACS classes for self-defence, and before long, were attending a class themselves. Kyra said, 'we've been part of the club for 10 years with my daughter training and then the other daughter starting'. For Erin, her mum acted as motivation: 'Mum said that she's found this ladies only class and that she wants to go and she said, "Can you come with me?"

For Sophie, her sister encouraged her: 'My older sister had joined a kind of local kickboxing club...And she kind of said to me, "Oh, they have a six-week beginner course, you should come and give it a go". So, I thought, why not?'. Training with immediate family improved the relationships women had at home. Furthermore, Aadila noticed MACS gave them something to do 'as a family'. Similarly did Erin: 'We can share that together and our journey and, you know, we can, train at home together and work towards the same things together...'. Francesca and Lotty recognised training as a family was particularly beneficial with adolescent children. Francesca said: 'It was quite good from the point of view

of having something to do with your kids. Sort of the bonding thing that we could all practise together'.

Fatima now has something to talk about with her brothers, who also participate in different MACS:

Sometime before I wouldn't know what to say to them much because they're kind of doing like video games type of stuff and I'm not that much into video games. But now my oldest brother does judo, so we always play with each other, like we try and tackle each other around.

Another benefit some women found was the convenience. If their children were training, it was easier to plan the family schedule and provide an activity they could do together. The involvement of the immediate family offered support and encouragement to women during training and any competitions, fights, or gradings they participated in, particularly for Francesca: 'It was really actually my son that got me through my first grading. You know, he told me "Come on, mum".'

Participation of immediate family can positively influence women's MACS experiences. Positive relationships with immediate family members can act as a motivator and support network for women in MACS. This can enable the wider benefits MACS training offers women's psychological well-being.

#### Theme 4: Sense of belonging

MACS clubs and gyms can foster a strong sense of belonging through community and friendships. Participants often felt loyalty to their clubs and instructors, speaking of how it is like an extended 'family'. Kyra said, 'It's one big family... you walk in there and everyone talks to you...you don't just stand in the corner on your own.'. Sophie reiterates this: 'Everyone feels like they belong at this gym, and everyone can fit in... actually, one of the hashtags which the gym uses on Instagram is "Together we belong"'. Participants regularly used language like 'belonging' and 'community' to describe their MACS experience.

Strong friendships contributed towards participants' sense of belonging. Participants shared stories of the friendships, often female, they had made in their MACS environment. Lotty says: 'So there's a tight group of us that... we call ourselves the Taekwondo Sisters...and then, then we're friends with, like, teenagers'. Although gendered, friendships appeared to be multigenerational, particularly with participants who described their training environment as family oriented. The friendships began in the dojos or gyms, but many women socialised with their friends outside of training. For Daisy it was coffee dates at the garden centre; for Sophie, Francesca, and Erin, this involved going out in the evening. Erin said, 'We go out for drinks and things and it's just nice for the social side'.

Participants talk about the challenges of adult life. Outside of martial arts, Grace admits 'It's quite hard to make friends as an adult', while Fatima struggles with mental health and loneliness. She says, 'Sometimes I struggle to talk to people...but I love it because I can always talk about the wrestling or the jiu jitsu with

people and I feel not so lonely...I always try to go to training so I don't feel lonely'.

Women's sense of belonging in MACS is coherently gendered. Participants share the positive experiences of training with women, like Daisy: 'I feel like when I train with my female friends and the other women in the gym, like, we train really, really well together in a way that, I don't really, when I get partnered with a male counterpart'. However, further to this observation, many women in the sample noted that training with men could often be a source of problems. Indeed, only two participants spoke positively about their experiences of men in the MACS environment. Aadila spoke about being a victim of sexual harassment from her first jiu jitsu instructor:

The reason I changed jiu jitsu schools is because I experienced, like, sexual harassment... from like the head coach and that has really stayed with me... you go somewhere to try and end up safer... and then that ends up happening.

Francesca shared a negative experience in her karate club when she broke her nose. When confiding to her instructor, he told her: 'Either put up with it, wear a head guard or f\*\*\* off'. For other women, negative experiences formed over time rather than in single, isolated incidents. Lotty found her male Taekwondo instructors 'intimidating'. For Grace, she found kickboxing spaces dominated by 'loud' and 'testosterone-y' men.

Although this study does not necessarily suggest mixed training environments are counterproductive to the perceived psychological wellbeing benefits noted so far, it acknowledges these women's preferences to experience MACS with other women. There are other studies that have argued explicitly the opposite, showing women preferred mixed classes and the potential they have to challenge dominant sexual hierarchies (Channon, 2014; 2018). That being said, literature on self-defence advocates for women's-only spaces (Gammage et al., 2021; Hollander & Beaujolais, 2023), as do MACS classes in areas of cultural and religious diversity. Rana (2018) promotes gender-segregated kickboxing for Muslim girls and women, recognising how they primarily provide an inclusive space to participate, but also empower and provide comfort. This study recognises violence against women in any environment can reduce women's psychological well-being (Oosthuizen & Wissing, 2005). Therefore, a condition of MACS improving women's psychological wellbeing could be the absence of violence or threat of violence from men.

## DISCUSSION

This paper has sought to explore how MACS can influence women's psychological well-being. And, in doing so, illustrates the motivations and positive outcomes of MACS training for women. As argued here and by others, MACS can positively influence psychological well-being and mental health (Bell, 2008; Fuller, 1988; Moore et al., 2020; Vargas, 2019; Vertonghen & Theeboom,

2010). Such influences are often multifaceted and gendered. In the results section four themes are explored. Though they differ considerably, they connect under the umbrella of psychological well-being. Glasser's choice theory gives support to this, arguing how MACS practice nurtures fundamental needs (Tadesse, 2017). Self-confidence and self-acceptance are individual factors identified in this study. In addition, psychological well-being is affected by relationships, interactions with others, and belongingness.

This study evidences that while MACS can increase perceived self-confidence among women, it may not decrease concerns around physical safety. Firstly, self-confidence is a major contributor to psychological well-being (Malkoç & Aynur, 2019), and many studies, including this one, recognise how MACS and self-defence can increase women's confidence (Lindsay et al., 2023; Moore et al., 2020; Standing et al., 2017; Vertonghen & Theeboom, 2010). Lindsay et al. (2023) found MACS can contribute to women's empowerment. Many women in this study spoke of how they were motivated to start MACS training because they wanted to feel more confident, particularly with their physical safety. Sarkova et al. (2014) similarly found motivation to learn self-defence stems from feeling unsafe. It is therefore unsurprising that many classes are shaped around the idea of women preparing to defend themselves against violent and sexual attacks from men and/or to recover from such attacks (Channon & Matthews, 2015). Despite the women in this study acknowledging MACS can increase their confidence levels, their anxiety around their safety often remained. Viet and Browning (2021) recognise that one reason anxiety around safety remains for women could be because MACS can reveal a power differential between females and males, which for women can be a "biological de-powerment" (p. 142).

Secondly this study, along with Cunningham and Turner (2016), found MACS increases women's self-acceptance. Other studies evidence MACS can increase self-esteem (Richman & Rehberg, 1986; Vargas, 2019; Vertonghen & Theeboom, 2010). Surprisingly, in this study women did not discuss self-esteem. Instead, self-acceptance, body image, and identity shaped the conversation. This is not to say self-esteem and self-acceptance do not coexist among participants. Looking across psychological literature, Ryan and Brown (2003) argue self-acceptance and mindfulness are healthier alternatives to self-esteem (Thompson & Waltz, 2008). Thompson and Waltz (2008) identify positive correlations between self-esteem and self-acceptance. Therefore, although this study provides an alternative terminology, the results regarding self-acceptance and self-esteem are similar.

Studies have found a strong correlation between body image satisfaction and women's psychological well-being (Fahami et al., 2018). Body image satisfaction is seen as a major contributor to women's overall life happiness (Stokes & Frederick-Recascino, 2003). Zhang (2021) draws attention to the social and cultural pressures on women to conform to social ideals of body image, particularly the expectation to be skinny, and how this can negatively affect both physical and mental health. Body image as a

facet of self-acceptance is largely under-researched in recreational MACS participation. This study evidences how recreational MACS can increase women's body image satisfaction. Women are enabled to gain greater self-acceptance with their bodies as their priorities shift away from their physical appearance. While this study found recreational use of martial arts to positively influence body image, other studies have shown that competitive or professional martial arts participation can negatively impact women's body image and physical health due to an emphasis on weight and weight classes (Channon & Matthews, 2015; Pjano, 2023).

Although family relationships are a factor in psychological well-being (Ryff & Keyes, 1995), they are not often mentioned in other studies exploring MACS. Yet, women in this study often discussed immediate family members and found them to be key motivators to practise MACS, with relationships often improving as a result. These findings raise important gender-related questions, particularly whether the importance placed on family affirmation and motivation alludes to the psychological impact of patriarchal systems, and to what extent such systems shape women's perceptions. An example of this is the unequal and gendered division of household labour, mental load, and childcare responsibilities (Haupt & Gelbiger, 2023), ultimately influencing women's participation in sport more broadly. This is evidenced in this study, when women discuss how they are planning their schedules based on their children's activities and the convenience for them. However, what this could highlight is how women can work within gendered norms to successfully create opportunities to participate. It is important not to overlook the role of women's agency in nurturing something positive for themselves and their children in MACS experiences that they share.

Identified as a fundamental psychological need underpinning motivation and wellbeing (Cao & Lyu, 2024), a sense of belonging is the final theme. This study indicates women can gain a strong sense of belonging in MACS, particularly through friendships and family. Winstone et al. (2022) found participation in activities outside of work and home lead to a greater belongingness and wellbeing for adults. Other studies acknowledge more specifically how MACS can influence belongingness. Bell (2008) recognises MACS as a community environment. Studies by Bowman (2020) and Dong (2016), which both focus on masculinity in MACS, draw attention to belongingness and stress its importance in men's lives. Recent studies acknowledge the importance of community and a sense of belonging in the MACS space. An example of this is a recent study in Chinese martial arts exploring how belongingness and group identity become motivators for ongoing participation (Cao & Lyu, 2024). Exploring this through a gendered lens, belongingness for women is particularly important in male-dominated spaces like MACS. Rana (2022) explores how young Muslim women have greater opportunities to train due to the increased availability of kickboxing classes that are women-only spaces within their local neighbourhood and therefore align with religious pursuits. Rana (2022) proposes that participation in kickboxing opens the door to a belongingness that



“actively counters the stereotypes” (p. 116) which can surround Muslim women.

Friendships are key to belonging and are an important dimension of psychological well-being (Ryff & Keyes, 1995). Women in the present study spoke about the friends they made at MACS. Spencer (2018, p. 181), who explored masculinity in MACS, speaks of the “centrality of friendships” in MACS, which aligns with the findings of this study. Ryff and Keyes (1995) recognise the significance of friendships in promoting positive psychological well-being. This study and others (e.g., Jones et al., 2006) found strong friendships act as motivation for continued participation in MACS. This study recognises that often friendships are gendered, as women speak of the differences between training with men compared to women. When women train with other women (either in a women’s only space or when they are partnered with women) they may develop greater friendships, feel comfortable, and enjoy MACS.

Some women in this study experienced sexual harassment, verbal abuse, and a sense of exclusion from men in mixed-gendered MACS classes. Therefore, although this study notes a range of positive ways MACS influences women’s psychological well-being, negative experiences with men can be counterproductive to these positive psychological well-being outcomes. This important observation prompts the need for further research and frameworks on how to keep women safe and benefiting from mixed-gender MACS environments.

## CONCLUSION

This paper explored how MACS can influence women’s perceived psychological well-being. Multiple findings align with existing literature that MACS can increase self-confidence, self-acceptance, and a sense of belonging. Where other studies found MACS to increase self-esteem, this study found more evidence towards an increase in self-acceptance. Whether recognised as self-esteem in other papers or self-acceptance in this paper, both can contribute positively as facets of psychological well-being. MACS can strengthen relationships with immediate family, which contributes positively to women’s psychological well-being. Lastly, MACS can increase belongingness through friendships developed and an overall feeling of community within the MACS space. Yet, a potential threat to the benefits of MACS could be negative experiences with men. Furthermore, this article considers how wider societal gender norms could impact women’s involvement and experiences in MACS. A broad sample of MACS shows how gendered concerns can cut across disciplines, ages, and levels of engagement. What is evident is how MACS can positively influence women’s psychological well-being across multiple factors.

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