

# FABIANA TURELLI, MAURICIO SEPÚLVEDA AND YUTONG CHEN ASSESSING EQUITY, DIVERSITY AND INCLUSION OF WOMEN IN MARTIAL ARTS AND COMBAT SPORTS: A SYSTEMATIC REVIEW

## ABSTRACT

This study presents a systematic review that aims to critically map Equity, Diversity and Inclusion (EDI) in MACS, focusing on women's experiences. We followed the PRISMA 2020 statement and collected data from 44 articles hosted on SportDiscus and Women Studies International Forum (EBSCO), Core Collection (Web of Science) and Sociological Abstracts (ProQuest) between June and October 2024. The findings show that women face multiple challenges related to traditional gender norms and unequal power relations, and yet intersecting factors such as religion and race. This review emphasizes the critical role of meaningful committed EDI initiatives in fostering inclusive environments that support women in MACS, which, despite the efforts of the martial-scholar community, are still missing. Systemic and institutional change should be pursued to women to thrive and social justice to reach wider settings. The intersectional framework provides this study with a unique foundation for institutional reforms and change in MACS.

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## KEYWORDS

EDI; women; gender; intersectionality; systematic review

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## INTRODUCTION

For an extended period of time, MACS have been considered a male-only field, with standard gender requirements and performances (Butler, 1990) and a hegemonic masculine culture prevailing (e.g., Turelli et al., 2022; Tjønndal, 2016). Historically, *qualities* such as strength, initiative and hostility have been seen as signs of masculinity, while femininity has been marginalized or decreased the worth of women in society (Marcuse, 2018). The increase of people identifying as women joining MACS has the power of subverting stereotypes and is an opportunity to explore possibilities for gender identities and promote gender equality (Turelli et al. 2023a; Maor, 2019). There is much to be done still though. Women in MACS to this date face numerous challenges around the world on power inequality, discrimination, (sexual) harassment, and (symbolic) violence, to name just a few (Sylvester, 2022). The interaction of gender, race, class and religion substantially add to the intricacy of the challenges, creating barriers for women and girls of all backgrounds, intersections that have not been investigated enough, to the best of our knowledge. This was a motivational factor for us to verify and confirm this gap in the literature.

Given the potential of MACS as a tool for promoting physical empowerment and resistance both to gendered norms and women's subordination (e.g., Maor, 2019; Roth & Basow, 2004), they have been receiving more attention in the academic community in the last three decades. While specific achievements ought to be acknowledged (e.g., Maclean, 2016, highlighting bonds of friendship between women and men karate practitioners in Scotland) pervasive systemic challenges within MACS organizations, such as low involvement of women in management and stereotyped cultural standards (e.g., Dortants & Knoppers,

2016; Tjønndal, 2019), there are still needs to be dealt with. The purpose of the review is to identify, analyze and synthesize how EDI practices have been implemented (or neglected) in MACS, aiming to provide key information for best practices. Yet, we will look at women's MACS experiences reported in relation to converging social elements like race, class, and religion, taking intersectionality as framework. These intersections are involved in a dynamic that is affected by, and simultaneously have an influence on, power and identity. Exploring this venue may help us to develop strategies to promote meaningful change through committed EDI praxis *on* traditionally male-dominated sports, namely MACS. Before proceeding, we directly explain the approach we took through the methods section, in which we state our positionalities, as our standpoint influences the reading of the data, even when following a systematic review protocol. After the methods, we present the findings section, to then discuss them and conclude the paper with some recommendations.

## METHODOLOGY

This systematic review follows an intersectional framework to examine how EDI is experienced by women in MACS. Knowing the complexity of gendered participation in MACS, emphasizes the importance of the framework and the qualitative direction of the analysis to find patterns inside the diversity of contexts and participants. The review follows the PRISMA 2020 statement (Page et al., 2021) with adaptations in the standards for sociological research (Rico-Gonzalez et al., 2022). We employed the SPIDER – sample, phenomenon of interest, design, evaluation, research type – scheme (Cooke et al., 2012) to guide eligibility criteria. Please see table 1 for specifications:

Table 1. SPIDER model applied with boolean operators.

S – Sample	women OR woman  gender  female*
P of I – Phenomenum of Interest	“martial arts”  “combat sport*”  aikido OR boxing OR “Gong Fu” OR Gongfu OR “Hap Ki Do” OR Judo OR Jujitsu OR Karate OR “jiu jitsu” OR “krav maga” OR “Kung Fu” OR “muay thai” OR “Tae Kwon Do” OR Wushu OR Kendo OR Naginata OR Capoeira OR “Tai Chi”
D – Design	Articles  Books  Chapters

E – Evaluation	Intersectional*  Equity  Divers*  Inclusi*  Equity, Diversity, Inclusion  race OR racis* OR racializ* OR religion OR ethnic* OR immigra* OR lgbt* OR gay OR lesbian OR bisexual OR transgender OR “social class*” OR “socioeconomic status” OR minority OR marginaliz*
R – Research type	Qualitative  Mixed method  Quantitative

We selected four databases due to their complementary coverage, as follows: SportDiscus and Women Studies International Forum (EBSCO), Core Collection (Web of Science) and Sociological Abstracts (ProQuest). Design and Research Type were not used in the search strategy application due to a decision of the team to check that in the screening. There was no restriction for time of

publication as a measure to expand the results window and map all publications. Due the multiculturalism of our team, we decided to keep English as the unifying point, allowing for double check of papers. A specialist librarian peer-reviewed and refined search strings. In table 2 we present the search strategy.

Table 2. Search strategy results.

Database	Interface	Search date	Database dates	Initial count	Post de-dup
SPORTDiscus	EBSCO		1917 - 2024	166	163
Core Collection	Web of Science		1900 - 2024	330	278
Sociological Abstracts	ProQuest	July 17, 2024	1982 - 2024	116	62
Women’s Studies International	EBSCO		1972 - 2024	51	36

The search strategy was applied two times, after that we screened the papers using Covidence systematic review software resources. For doing so we decided that every study would be screened by the second and third authors and that would be done blinded to avoid bias in the criteria. The first author was designated to resolve disagreements. For title and abstract screening, we sought that the studies met SPIDER design.

We screened 529 studies in this stage, and 424 were excluded. We checked in deep that the studies complied with the criteria of the [mas.cardiffuniversitypress.org](http://mas.cardiffuniversitypress.org)

SR, excluding those that did not. To collect articles/texts for this screening, the second author used the Anonymous University access to different journals, in addition to the support of the previously mentioned librarian/Library. Collection of full documents delayed the finish date of the screening and extraction to September 24<sup>th</sup>. Nevertheless, we assessed the eligibility of 104 studies instead of 105 as 1 was not found despite efforts. Of 104, a total of 60 studies were excluded. See table 3 below for detailed exclusion criteria.

Table 3. Exclusion criteria used for screening by full text.

Reason	Criteria	Studies excluded
Wrong sample	Study does not focus on Women, Woman or Gender samples	7
Wrong phenomenon of interest	Study does not focus on Martial Arts or Combat Sports	13
Wrong study design	Study is not a paper, book chapter or book	22
Wrong evaluation	Study does not show EDI experiences	10
Lack of information for evaluation	Study shows EDI experiences, but focuses on topics other than research's interest	2
Language	Study is not written in English	5
Authors' criteria	First author authoring the paper, knowing it did not fit the research	1

We developed an extraction instrument with 28 items: two questions for coder identification, seven questions related to bibliographic details and 19 questions for coding the information.

The extraction instrument was set on the Office Forms software to make this step easily accessed. Items are detailed in table 4.

Table 4. Extraction instrument.

Section	Items
Identification	Reviewer (name)
	Review date
Bibliographic details	Author(s)
	Title
	Source (journal/publisher)
	Country of publication
	Year
	Study design
	Research type

Coding	<p>What are the aims of the study?</p> <p>What are the findings of the study?</p> <p>What are the strengths and weaknesses of the study and theory?</p> <p>Methodology (empirical or theoretical)</p> <p>Position of the authors</p> <p>Theoretical framework</p> <p>What data collection methods are used to obtain and record the data? (For example, provide insight into: data collected, appropriateness and availability for independent analysis)</p> <p>How is the sample (events, persons, times and settings) selected?</p> <p>Where is located the sample?</p> <p>What are the key characteristics of the sample (events, persons, and settings)?</p> <p>Over what time period has the study been conducted?</p> <p>Martial Art or Combat Sport researched</p> <p>Ethics (Was Ethical Committee approval obtained? Was informed consent obtained from participants of the study?)</p> <p>Is it identifiable the EDI (literal or subliminal)</p> <p>Is it identifiable intersectionality (literal or subliminal)</p> <p>Were the experiences shown positive or negative or mixed?</p> <p>Highlighted outcomes/conclusions</p> <p>Can the experience be generalized? / Can the experience be replicated?</p> <p>Does the study promote or make recommendations regarding policy and practices best?</p>
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Second and third authors did the extraction phase blinded and the first author supported in case of ambiguities. In addition to the found studies, the first author included four studies manually directly to screening in full text given that they are basis references although not showing up in the databases. We coded

44 studies; the coding phase was followed by meetings to discuss the presentation of information. Several meetings happened both in person and online, once second and third authors went back to their home countries. See table 5 with the final list of studies.

Table 5. Final list of included papers.

Title	Author(s)	Year	MACS
A Literature Review of Women and The Martial Arts: 'Where are We Right Now?'	Follo, G.	2012	Martial arts in general
'Girls are not made of glass!': Barriers experienced by women in Norwegian Olympic boxing	Tjønndal, A.	2019	Boxing
'We could perform much better if we had specific training for girls': impacts of the embodiment of tradition for elite-level karateka women	Turelli, F., et al.	2024	Karate

'Fighting like a girl': Qualitative analysis of the gendered movement learning in the Spanish Olympic karate team	Turelli, F., et al.	2022	Karate
'I don't think they realise how good we are': Innovation, inclusion and exclusion in women's Olympic boxing	Tjønndal, A.	2019	Boxing
'Pra homem, menino e mulher'? Problematizing the gender inclusivity discourse in capoeira	Owen, C., & De Martini Ugolotti, N.	2019	Capoeira
'The Nordic female fighter': Exploring women's participation in mixed martial arts in Norway and Sweden	Alsarve, D., & Tjønndal, A.	2020	MMA
'Will God condemn me because I love boxing?' Narratives of young female immigrant Muslim boxers in Norway	Tjønndal, A. & Hovden, J.	2021	Boxing
'Just Existing Is Activism': Transgender Experiences in Martial Arts	Kavoura, A., et al.	2022	Kendo, Aikido, Muay Thai, Taekwondo, and Boxing
'Some Women Are Born Fighters': Discursive Constructions of a Fighter's Identity by Female Finnish Judo Athletes	Kavoura, A., et al.	2018	Judo
'The issue of weight is a personal responsibility' – Demands for performing in gendered karate in the Western neoliberal society	Turelli, F., et al.	2023	Karate
A Good Fight: How Indigenous Women Approach Boxing as a Mechanism for Social Change	Ross, M., & Forsyth, J.	2021	Boxing
Challenging Stereotypes: The Case of Muslim Female Boxers in Bengal	Mitra, P.	2009	Boxing
Empowered, yet vulnerable: Motives for sport participation, health correlates, and experience of sexual harassment in female combat-sport athletes	Mathisen, T., et al.	2022	Not detailed
Enter the discourse: Exploring the discursive roots of inclusivity in mixed-sex martial arts	Channon, A.	2013	Choi kwang do, Judo, Muay Thai, Jujitsu, Karate, Kickboxing, Kung fu, MMA, Taekwondo, and Taijiquan
Fighting Gender Stereotypes Women's Participation in the Martial Arts, Physical Feminism and Social Change	Maor, M.	2019	Not detailed

Friendships worth fighting for: Bonds between women and men karate practitioners as sites for deconstructing gender inequality	Maclean, C.	2016	Karate
Gender integration in collegiate combative physical education classes	Bedard, A., et al.	2018	Boxing
Gender Roles in Martial Art: A Comparative Analysis of Kalaripayattu Practices in India	Mandakathingal, A.	2021	Kalaripayattu
Girls as the 'new'agents of social change? Exploring the 'girl effect' through sport, gender and development programs in Uganda	Hayhurst, L.	2013	Karate and Taekwondo
Guerreira Tactics: Women Warriors' Sonic Practices of Refusal in Capoeira Angola	Kurtz, E.	2020	Capoeira
'If there were more women coaches around, I think things would be different' women boxing coaches: Struggles to challenge and change a male-dominated sport environment	Hovden, J. & Tjønndal, A.	2021	Boxing
In pursuit of empowerment: Sensei Nellie Kleinsmot, race and gender challenges in South Africa	Jones, D.	2001	Karate
Intersecting identities of elite female boxers: Stories of cultural difference and marginalization in sport	Blodgett, A., et al.	2017	Boxing
'It made me feel powerful': women's gendered embodiment and physical empowerment in the martial arts	Velija, P., et al.	2013	Thai Boxing, Kickboxing, Shotokan Karate
Liberating the amazon: Feminism and the martial arts	Guthrie, S.	1995	Karate
Muslim Piety as Emphasized Femininity in Women-Only Kickboxing	Rana, J.	2022	Kickboxing
Negotiating Gender and Sexuality: A Qualitative Study of Elite Women Boxer Intersecting Identities and Sport Psychology Implications	McGannon, K., et al.	2019	Boxing
Pink gloves still give black eyes: exploring 'alternative' femininity in women's combat sports	Channon, A. & Phipps, C.	2017	Kickboxing, Muay Thai, Karate, Taekwondo, and MMA, among others
Pretty strong women: Ingenious agency, pink gloves and Muay Thai	Davies, S. & Deckert, A.	2019	Muay Thai

Pugilistic pioneers: The history of women's boxing in Norway	Tjønnndal, A.	2016	Boxing
Regulation of diversity through discipline: Practices of inclusion and exclusion in boxing	Dortants, M. & Knoppers, A.	2013	Boxing
Reinterpreting the history of women's judo in Japan	Miarka, B., et al.	2011	Judo
Shape Your Life and Embrace Your Aggression: A Boxing Project for Female and Trans Survivors of Violence	van Ingen, C.	2016	Boxing
Style, stamina and mobile masculinities: The reinvention of Savate in the Anglosphere	Jennings, G. & Delamont, S.	2020	Savate
The death of a female boxer: Media, sport, nationalism, and gender	McCree, R.	2011	Boxing
The gendering of coaching from an athlete perspective: The case of Norwegian boxing	Hovden, J. & Tjønnndal, A.	2019	Boxing
The inclusion of women's boxing in the olympic games: A qualitative content analysis of gender and power in boxing	Tjønnndal, A.	2016	Boxing
The organization of diversity in a boxing club: Governmentality and entangled rationalities	Dortants, M. & Knoppers, A.	2016	Boxing
Throwing your hat in the ring: Women volunteers in boxing	Fitzgerald, H., et al.	2022	Boxing
Towards the 'undoing' of gender in mixed-sex martial arts and combat sports	Channon, A.	2014	BJJ, Choi Kwang Do, Judo, Kickboxing, MMA, Muay Thai, Shotokan Karate, and Taekwondo
Transgender Athletes and the Queer Art of Athletic Failure	Fischer, M. & McClearen, J.	2020	MMA
Using postcolonial feminism to investigate cultural difference and neoliberalism in sport, gender and development programming in Uganda	Hayhurst, L.	2014	Karate/ Taekwondo
Whatever it takes: Women on women's sport	Sandoz, J. & Winans, J.	1999	Boxing/ Wrestling

Positionalities

We want to acknowledge our different lived experiences, and rich diversity in bringing practical and theoretical elements to the analysis. We are in three different age generations and identify as transitioning different income extracts (be it in our own or with our families). Our research team is a CALD (culturally and linguistically diverse) team: multicultural, composed of a Brazilian/ Italian person, a Colombian and a Chinese, thus different mother tongues other than English, and is a multidisciplinary team (backgrounds in sociology of sport/ physical and health education, law and philosophy). Yet, the three of us have diverse ethnicities, varying spiritual beliefs, and plural martial experiences. In common, we all identify as cisgender. Specifically, the first author is a researcher with more than three decades of practice in MACS, who has been studying intersectionality and EDI in those environments for more than two decades. She assembled a team to achieve the objectives of this systematic review, as a mapping of the field to approach its issues. It was proposed as a project to Mitacs Global Research Internship 2024 Canadian program, which led to the selection of two high-qualified international undergraduate students. They became co-authors in this article. The second author is a lawyer, student of physical education and a practitioner of MACS, and the third author is a student of philosophy with interest in gender studies. This background of the team allows us a deep understanding of the sample, phenomenon of interest and evaluation criteria since we were able to multiply cross and confront our interpretations when analyzing the information. We acknowledge though that the fluidity of the paper, written in English as an effort to communicate with the *universal* academic community, may be impacted by our CALD feature.

FINDINGS

Although we would like to see action taken to lead to systemic and institutional change so to women to thrive and social justice to reach wider settings, the main features on the literature indicates issues concerned with a *gendered culture within martial arts; unequal power relations and gendering of leadership; many issues around gender, race and religion; and yet aggression, self-defence and bodily empowerment as attempts for change; and some possibilities for challenging gender norms and stereotypes/doing gender.* We will unpack these features of the literature at the end of this section, after we present the studies selection (in Figure 1) and characteristics, and the methodological and theoretical approaches they followed.

Studies characteristics

The reviewed literature, comprising a total of 44 studies published from 1995 to 2024, dominantly employed qualitative methodologies (n=40), with a minority adopting a mixed-methods approach (n=4). In terms of study design, the majority were journal articles (n=40), followed by book chapters (n=3) and

one full-length book (n=1). Research was conducted across various locations, though some were unspecified or conducted online (n=3\*). The majority of studies has been conducted in Europe, specifically in the UK (n=9), Norway (n=7), Spain (n=3), and the Netherlands (n=3). North American contributions included Canada (n=4) and the USA (n=5). Five articles spanned two or three different locations, for example, the study carried out by Kavoura et al. (2022) considered data from Finland and the United Kingdom.

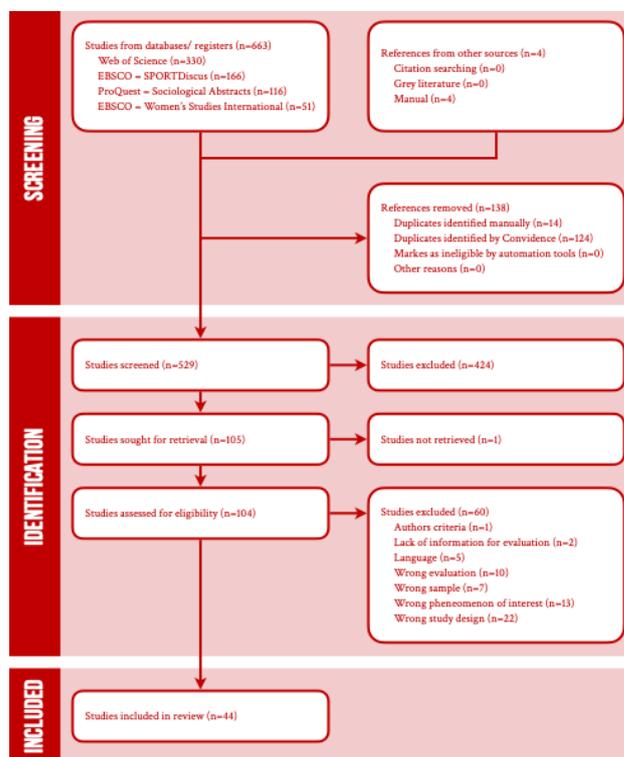


Figure 1. Studies selection.

In terms of sample characteristics, nearly half of the study samples included MACS participants (i.e., athlete or student [n=23]), while 14 articles focused on coaches/ teachers (n=8) or sport organization administrators (n=6). MACS disciplines were diverse, with a focus on boxing (n=18), karate (n=7), judo (n=3), MMA (n=8), and others (n=8).

Methodological and theoretical approaches

Methodologically, the studies largely employed empirical approaches (n=39), with a smaller proportion using theoretical frameworks (n=5). A range of data collection methods were employed, often combining multiple techniques for data gathering. We highlight a couple of contrasting examples; Dortants and Knoppers (2016) employed both interviews and participant observations, while the study of Mathisen et al. (2022) only used a digital questionnaire to collect background information on physical training history, motives for combat sport involvement, and experiences of sexual harassment. The

most common qualitative data collection method was interviewing (n=31 [both in-depth and semi-structured]). Additional methods included direct observation (n=7), questionnaires (n=3), ethnography (n=6), focus groups (n=1), and case studies (n=2). Several data analysis techniques were employed in the articles. Thematic analysis was the most prevalent technique (n=17\*), followed by content analysis (n=9\*). Additionally, media coverage analysis (McCree, 2011), discourse analysis (Fischer & McClearen, 2020), and narrative analysis (n=2) were also utilized. For instance, two studies (Tjønndal & Hovden, 2021; Turelli et al., 2024) conducted narrative analysis to gain insight into interviewees' experiences with martial arts.

Among all the reviewed articles, there was no explicit mention of theoretical frameworks for more than one-third of the articles. Notably, four articles utilized queer theory challenging the traditional binary categories of gender and the normative assumptions of cisnormativity and heteronormativity in sports culture (e.g., Channon, 2013; Kavoura et al., 2022). Two articles were grounded in Connell's theory of masculinity, criticizing hegemonic masculinity in sports (Alsarve & Tjønndal, 2020; Jennings & Delamont, 2020). Four studies adopted critical social constructionist theory to explore women's practices in martial arts, challenging the construction of gender under the influence of traditional cultural norms and social institutions (e.g., Turelli et al., 2023b; 2024). Additionally, four articles applied Foucauldian and post-structuralist theories, where Foucault's concepts of discourse and power relations played a significant role in the sociological study of masculinity in sports (e.g., Owen & De Martini Ugolotti, 2019; Tjønndal, 2016). Two articles employed the doing gender framework, which emphasizes how individuals "do" gender in accordance with socially accepted ideals, thereby constructing their social identities (Channon, 2014; Hovden & Tjønndal, 2021).

In examining power dynamics within sports organizations, two studies used gender leadership theory (Hovden & Tjønndal, 2019; Tjønndal, 2019). Research focusing on embodiment and gender was relatively rare, with two articles employing the physical feminism framework (Maor, 2019; Velija et al., 2012), but with Turelli et al. (2023a) interested on embodied subjectivity under a critical feminist approach. For intersectional studies involving gender, race, and religion, two articles adopted a postcolonial feminist perspective (Hayhurst, 2013; 2014), while other two applied and named intersectionality theory (Blodgett et al., 2017; Tjønndal & Hovden, 2021).

### Main topics addressed in the literature

#### *Gendered Culture and Martial Arts*

As for the research focus, all studies explore women's experiences in male-dominated fields of MACS. These studies provide evidence of how women have been facing substantial barriers to fully accessing MACS environments at all levels, from recreational participation to elite. Although the frequency of women's participation in MACS may be increasing, they continue to

encounter numerous challenges related to EDI. These obstacles arise from traditional gender norms, hegemonic masculinity (Connell, 1995), gender power imbalances, and in some cases, religious and ethnic factors. Collectively, these influences prevent women from participating and reaching belonging in martial arts practices and hinder their advancement to leadership positions within organizational management.

#### *Possibilities for challenging gender norms and stereotypes/doing gender*

The traditional and discriminatory treatment of women is frequently highlighted in the sociological literature on sports. Although martial arts arenas are still and mostly perceived and experienced as male-dominated environments governed by gender norms, Maclean's (2016) work explored how mixed-gender friendships are formed in karate fighting within traditional gender hierarchies. Maclean exposed how, while these gender norms shape martial arts spaces, the formation of mixed-gender friendships can challenge notions of hierarchical difference between women and men through challenging conventional (hierarchical) ways of doing gender in woman-man relationships.

Stereotypes on men and women social performances and interactions lead to the construction of gender differences (West & Zimmerman, 1987). People perform in ways which conform to (or, in some cases, oppose) culturally acceptable types of masculinity and femininity. Rather than simply "being" a certain gender, individuals "do" gender in relation to socially recognized ideals, thus constructing their social identities (Maclean, 2016). Within this framework, women often internalize the traditional gender norms, aligning themselves with expected femininity from them by directly or indirectly emphasizing a physical and intellectual inferiority to men. Specifically on MACS, a traditional martial pedagogy (Cynarski et al., 2012) works in a binary dynamic attributing standardized gendered roles for practitioners (Turelli et al., 2022). Notwithstanding, as more women enter male-dominated MACS spaces and practice alongside men, there is a possibility of challenging hegemonic gender performances and notions of masculinity and femininity.

Channon (2014) interviewed 37 martial artists and observed that mixed-gender martial arts training provides the opportunity to physically perform in ways that deviate significantly from stereotypical ideals of masculinity and femininity. Nevertheless, on another line of the studies analyzed is the strong evidence on how women continue to face restrictions imposed by gender norms. These studies state that women may enter male-dominated spaces but are required to emphasize their femininity (see Connell & Messerschmidt, 2005) through traditional feminine markers, such as wearing makeup, having long hair, and conforming to heterosexuality. Women who challenge gender norms suffer side-effects in an attempt of discouraging them; they are labeled lesbians, deviants, or violators of sexual and gender norms unless they clearly project traditionally expected gender binary. Ross and Forsyth (2020) note in their study that Mercedes Waukago adopted the ring name "Princess Tona Tomah" to

secure her place in wrestling by appealing to an overwhelmingly white, male audience.

*Unequal power relations and gendering of leadership*

The imbalance of gendered power significantly limits women's opportunities to attain leadership positions in sports organizations, resulting in their severe underrepresentation, also verified in coaching leadership in MACS. Women coaches, administrators, and sports managers frequently face resistance or discrimination in this field as pointed out by Tjønndal (2019). In her research, she reported that women coaches are often criticized for being "too feminine" or "too masculine". On the one hand, they are seen as more democratic and nurturing, able to create a better environment in the boxing gym. However, their leadership is not always considered "efficient, necessary and sound in coach leadership" (p. 92), instead, they often appear too weak or lacking confidence. On the other hand, women coaches are also seen as more "masculine" than "ordinary women". Whatever their approach, women coaches are always judged as too masculine to be considered feminine, or too feminine to be effective leaders – a *fight* always ending up in a defeat.

They are consistently measured against traditional gender norms and leadership ideals, and in many cases, they find themselves still bound by the gender stereotypes of mainstream culture. Tjønndal (2019) also noted that gender-mixed leadership teams tend to function more efficiently and with less internal conflict only when women occupy subordinate positions, and feminine leadership traits are categorized as secondary and less important. Consequently, in the field of MACS, the most common pattern is that women hold positions as assistant coaches or are perceived as contributing only through gynocentric leadership traits, which are regarded as gendered, specialized, and less important competencies. Nonetheless, de-masculinization of coaching roles would represent a shift reducing the likelihood of female athletes being excluded, harassed, or abused by men coaches, thereby safeguarding the democratic right of women to participate in MACS such as boxing (Tjønndal, 2019).

*Aggression, self-defence and bodily empowerment as attempts for change*

Women's bodies are conservatively addressed as fragile and weak, rendering them incapable of engaging in high-impact sports, as noted by Roth and Basow (2004), who also emphasize that developing physical strength is crucial for women's liberation. They argue that women's engagement in MACS is not inherently violent; rather, it equips them with the physical power necessary to defend against various forms of violence. Roth and Basow (2004) report an experiment conducted by Mathisen, where 29 female martial artists were surveyed randomly, revealing that 70% had experienced sexual harassment. Roth and Basow use this information to argue that the prevalence of sexual violence against women underscores the urgent need for women to enhance their physical strength for self-defence.

Yet, Velija's (2013) interviews with 11 female MACS practitioners illustrate that women begin to recognize their body through sport

practice, leading to increased strength and empowerment. The realization of physical strength enables women to reject the weak, passive female body, a form of embodiment that these women were used to prior to their involvement in MACS. Given the social embodiment of gender, women often discover relatively late in life that strength and power are not exclusively men attributes; they also can utilize their physical capabilities to fight and protect themselves. Velija (2013) also points out that some women take up MACS to achieve a slimmer, more toned body. In doing so, they may conform to society's beauty standards while rejecting the combative aspects of MACS for them. This phenomenon could contradict the empowering approach of MACS by perpetuating traditional notions of femininity, while it still can be taken as empowering under different approaches, as empowerment happens through strength and feelings of beauty as well. Empowering the body through strengthening though not only challenges traditional gender norms but also provides psychological resilience, allowing survivors of sexual violence to emerge from the shadows and reclaim their lives, as van Ingen's (2016) research reveals. In her research, self-defence itself seems to empower women to question and challenge perceptions that emphasize women's physical weakness, although it was done in a specific environment, to recover from men's abuse mostly.

*Gender, race and religion*

Race and religion can create unique barriers that increase the challenges women face in MACS. In some sociocultural contexts, religious beliefs and norms impose restrictions that conflict with MACS' requirements. For example, Tjønndal and Hovden (2021) studied Norwegian Muslim female boxers. They noted that these athletes often find themselves in a dilemma. They struggle to balance their identities as "good daughters" and "good Muslims" with their desire to become successful boxers, facing pressures from both their families and the boxing community. In the boxing field, they are viewed with suspicion and marginalization. Coaches, who are mostly white men, often question and disrespect the religious beliefs of Muslim women boxers. For instance, they insist that these women wear boxing clothing that does not respect their religious rules. At the same time, women are expected to maintain modesty and fulfill family responsibilities, such as bearing children. Therefore, although Muslim women's participation in MACS could be seen as a direct challenge to the patriarchal structures of their religious tradition, they are charged a very high price for participating.

Similarly, women of colour who participate in MACS also suffer from intersectional discrimination. The dominant narratives and structures within MACS tend to prioritize white, men participants, marginalizing the voices and experiences of women, especially those from racial or ethnic minority backgrounds. These women are not only excluded from decision-making roles but are also more likely to be overlooked in media representations and professional opportunities, often referred to as "girls" rather than "women," thereby infantilizing the achievements of female athletes and reaffirming male dominance. Furthermore, women of

colour are subjected to racial stereotypes as Lajimodiere (2013) points out by informing that “Indigenous women have to be exotic, wild, collaborationist, crazy, to qualify for non-Native attention” (p. 105). Ross and Forsyth (2021) note how Indigenous women boxers continue to face challenges such as inadequate funding, racism and poor education opportunities.

## DISCUSSION AND CONCLUSION

This SR focused on the barriers women experience across all levels of involvement in MACS, from leisure to elite, to assess if EDI practices have been implemented to improve women’s experiences in this field. This review brings originality and novelty in overseeing women in martial arts, therefore speaking to its function and usefulness in thinking of MACS’ transformation. The review of 44 research studies exposes that the majority of women practice in environments where hegemonic masculinity is still prioritized, with women remaining marginalized. Furthermore, they contend with gender stereotypes, including accusations concerning their sexual choices and supposed masculinization of their bodies or the way they carry roles of leadership in the few cases it applies. In this sense, the prevalence of gendered power imbalances has women coaches typically viewed as not having management qualities and mainly serving in secondary functions within organizational systems. This set of challenges is intensified by the intersecting structures of patriarchy with racism, and faith discrimination, which tend to prevent the improvement of women in MACS, keeping them subordinated to traditional hierarchy system instead, with men dictating rules.

As the data show, many women still struggle with gender stereotypes, power inequalities, and sexual violence even if more women are practicing MACS. Encouragingly, though, an increasing number of women are using MACS training to empower themselves, strengthening their bodies, therefore challenging the social stereotypes that have long portrayed women as weak and passive. By their deeds, they expose the ingrained gender stereotypes that place men as protectors and women as victims, thereby discovering to safeguard oneself against undesirable sexual advances and other kinds of aggressiveness that easily turn into violence. Thus, women fighters can challenge gender norms by becoming their own protectors, becoming free of masculine domination disguised of protection. In the world of sports organizations, more women are recognizing the gendered power inconsistencies and are actively striving to turn down standardized gender functions by enhancing their training capability and expert skills, so securing their rights and chances. Concurrently, converging factors such religions, and race include more intricacy to the difficulties women deal with in MACS.

Although there are some attempts and possibilities for women’s empowerment showed to date in the literature, the SR highlights significant gaps or spaces in the literature regarding EDI initiatives specifically for women in MACS. The existing research

identifies many of the challenges faced by women in MACS, but it remains restricted in offering practical solutions – although we acknowledge that solutions are not simple or faster when problems are systemic. Most studies describe and analyze the problems, though not deeply delving into how institutional practical reforms could possibly address (some of) these challenges. Only 15 studies have put forward specific recommendations for institutional change to address gender inequality in MACS. For example, Hovden and Tjønnndal’s (2021) research suggests that women coaches need to be familiar with the gendered power relations that form their day-to-day training practices and boost their coaching abilities and leadership abilities to navigate that. However, we note how demands are again placed on women, as in the previous example, with women being required to learn about the specifics of gendered power relations and then boost their abilities; things that are not expected from men to do. It somehow wants to establish that the martial field is neutral, not creating or reinforcing social issues. We argue that the field is not neutral and reproduces many social inequalities, reinforcing a patriarchal system (Turelli et al., 2024). In this sense, transformation is urgent as EDI initiatives for women in MACS are clearly a lack in the literature and in society.

### *Recommendations and areas for future research and initiatives*

Beyond acknowledged specific efforts, effective approaches should consist of policy, institutional, cultural, and social modifications. Examples include enacting gender-equality policies, motivating greater female representation in functions such as coaching and management, and promoting inclusive and equitable practices in recruitment, training, and promotion processes. But it also goes through daily practice in small gyms, where misogyny and discrimination need to be banned, and queer plural ways of fighting need to be welcomed in opposition to standard binary styles of coaching. New approaches are needed, prioritizing community over competitiveness, and safe spaces over pedagogies of attrition (Rodrigues et al., 2024) that trigger trauma responses. Yet, as a global society, we do not have enough information on women’s history, often making adaptations from men’s registered history in multiple fields to then address women’s needs, e.g., in health matters. We advocate for increasing research on women in MACS implementing pilot projects for change to enhance understanding of gender issues and inform policymakers and sports administrators.

Future efforts in MACS need to integrate institutional reforms with cultural practices that recognize and deal with the complexities of gender, race and ethnicity, social class, and religious beliefs, at least, to more advancements of gender equity in the art kind. Taking this thorough approach is anticipated to contribute to the transformation and ideal removal of enduring gender predispositions, thus making it possible for women to achieve belonging in MACS, driving fair development and advancement in the field. Yet, we missed reading about the implications of financial hardships impacting performances or even attracting practitioners to modalities having lower costs and

possible connections of these with violence. We see a link between internalized oppression and martial practices, toughness and submission to violence (Turelli et al., 2025); this could be explored further in future research. Finally, EDI practices may figure as politically correct expected acts and rules or even be described in policies but are clearly not converted into meaningful implemented actions to improve women's experiences in MACS. Women are still othered in MACS proving that there is much to be changed, despite the empowerment MACS can potentially provide women with.

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