

Institutional Ecosystems and Soviet–Russian Combat Heritage as Technical Infrastructure for Elite Career Development in Pankration, Free Fight and MMA

A Longitudinal Mixed-Methods Analysis of Elite Combat Sports Career Development Among WUFC World Ultimate Full Contact Athletes (Editions 18–30, 2005–2017) Using the Fernando Loio Combat Performance Framework (FLCPF)

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Event Context

WUFC World Ultimate Full Contact | Editions 18–30 (2005–2017) | 30 Editions Total (1988–2017)

Abstract

Background and Study Aim:

The WUFC World Ultimate Full Contact (1988–2017, 30 editions, *Viseu/Lamego/Peso da Régua*, Portugal) served as one of the most significant international pankration, free-fight and MMA platforms in European combat sports history. The present study addresses a central empirical observation from the event's 13 analysed editions (18th–30th, 2005–2017): the consistent and disproportionate dominance of Russian and Dagestani athletes in competitive outcomes, characterised by the highest number of victories, the highest technical standard, and the most frequent elite career transitions. The study examines the motivational, disciplinary, technical-tactical, physical, and emotional-psychological factors underlying this dominance, contextualises them within the Soviet–Russian combat sports cultural tradition, and documents the subsequent careers of these athletes across the world's most important combat sports competitions — including UFC, PFL, Bellator, HBO boxing, and other elite promotions — in all disciplines. The Fernando Loio Combat Performance Framework (FLCPF; Loio, 2026), an ecological-integrative model derived from observational analysis of 170 elite under unified rules of ultimate full contact / free fight / MMA, provides the theoretical lens for this analysis.

Research Questions:

RQ1: What factors — motivational, cultural, disciplinary, technical-tactical, physical, and emotional-psychological — explain the consistent dominance of Russian and Dagestani athletes in WUFC competition (editions 18–30)? RQ2: How does the Soviet–Russian combat sports cultural tradition map onto the seven dimensions of the FLCPF, and how does this mapping explain competitive dominance at WUFC and subsequent elite international careers? RQ3: What evidence exists, across all combat sports disciplines (MMA, boxing, pankration, grappling), for the sustained global competitive success of athletes from the same institutional tradition observed at WUFC?

Material and Methods:

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A convergent triangulation mixed-methods design (Creswell & Plano Clark, 2017) combined: (a) two semi-structured qualitative interviews — Coach 1: Andranik Ashugyan (Armenia/Russia; 4× WUFC world champion 2006–2015; M-1 Global) and Coach 2: Vladimir Mikhailovich Stepkin (President, All-Russian Pankration Federation; 1st Vice-President, World Pankration Association Federation; President, European Pankration Federation), whose interview data (3 March 2026) provide the institutional and cultural grounding for the study's central argument; (b) systematic archival athlete career tracking across Sherdog, Tapology, UFC records, BoxRec, and ACA databases; and (c) a narrative review of peer-reviewed literature on boxing skill efficiency and technical performance in hybrid full-contact combat sports. The principal investigator (Fernando Loio) occupies a unique multi-role insider position — athlete, coach (Loio Team), promoter/founder of WUFC (30 editions), federation officer, manager, and international representative across four continents with direct participation in dozens of events in Russia and the post-Soviet space — providing prolonged engagement (Lincoln & Guba, 1985) and tacit knowledge (Polanyi, 1966) that directly contextualises the qualitative findings.

Results:

Russian and Dagestani athletes represented the dominant cohort across WUFC editions 18–30, accounting for 55% of verified elite international WUFC athletes (Tier 1 and Tier 2) and consistently demonstrating superior technical-tactical efficiency, anticipation, and adaptive transfer capacity — the core FLCPF dimensions (Loio, 2026). Interview data from Stepkin (personal communication, 3 March 2026) established that: athletes begin specialised training at age 5–6; the primary technical foundation is wrestling, sambo, judo, and grappling; the training ratio is 50% grappling/50% striking; elite athletes achieve 2–3 core techniques worked to full automaticity; and 'in the Caucasus, wrestling is absorbed with mother's milk — it is national.' Ashugyan's account (personal communication, 2024) confirmed the role of multi-disciplinary technical breadth as the defining differentiator. Archival tracking identified 22 WUFC athletes with significant post-WUFC international careers across UFC, PFL, Bellator, HBO boxing, M-1, ACA, Cage Warriors and other elite promotions. Notable athletes include: 2× PFL World Champion Magomedkerimov (pro debut WUFC 2008), UFC regular Valiev (pro debut WUFC 2010), UFC Top 5 flyweight Albazi, WSOF World Champion Bibulatov, UFC/Bellator competitor Sultan Aliev, and boxer Bektemirov (HBO, 20-1, trained by Ronnie Shields). The paradigmatic expression of the same Dagestani institutional ecosystem — though not a direct WUFC participant — is Khabib Nurmagomedov (29-0, UFC Lightweight Champion 2018–2021, Hall of Fame 2022), whose developmental trajectory from Dagestani childhood wrestling through sambo and judo to UFC dominance precisely instantiates the FLCPF dimensions this study documents.

Conclusions:

The dominance of Russian and Dagestani athletes at WUFC is explained by a coherent, multi-generational institutional ecosystem — wrestling as cultural identity, sambo and judo as foundational disciplines, Soviet boxing methodology as striking infrastructure, and a motivational-disciplinary culture rooted in national tradition — that directly produces each of the FLCPF's seven dimensions (Loio, 2026). This same institutional ecosystem explains sustained global elite performance across MMA, boxing, and grappling, from PRIDE FC (Fedor Emelianenko) to the undisputed boxing world championship level (Beterbiev, Bivol). The FLCPF thus validates not only as an analytical framework for WUFC competition, but as a model for understanding how cultural-institutional ecosystems produce and sustain combat sports excellence across generations and disciplines.

Keywords: *pankration · MMA · Dagestan · Soviet combat heritage · FLCPF · sambo · wrestling culture · motivational factors · adaptive transfer · elite development · boxing · free fight*

1. Introduction

The World Ultimate Full Contact (WUFC) was founded in Viseu, Portugal, by Fernando Loio in 1988 and ran continuously for 30 editions until 2017, with the majority of editions hosted in Viseu and Lamego. All editions analysed were promoted by the author through the *Associação Full Contact de Viseu* (AFCV), under the auspices of the Portuguese Full Contact Federation — initially designated the Portuguese Federation of Pankration, Free Fight and Full Contact — and sanctioned by the relevant international martial arts and combat sports¹. Throughout its 30-year history, the event was always officially designated WUFC World Ultimate Full Contact; alternative denominations appearing in some external or archival sources (such as 'Troféu Feira' or 'Feira de S. Mateus') refer to the hosting venue or local fair context and do not constitute the official event name. The competitive format of the WUFC was characterised by exceptional technical, tactical, physical and psychological demands. Athletes competing for a world title were required to win two, three or sometimes four consecutive bouts on the same day — a cumulative physical and psychological challenge with no equivalent in scheduled professional MMA, where opponents face a single opponent per event after weeks of specific preparation. The rules were closely aligned with current professional MMA rules: open-finger gloves, groin guard and mouthguard were the only mandatory protective equipment. In the foundational period (1988 to the late 1990s), bouts were contested under traditional pankration rules with minimal or no protective equipment — fully consistent with the historical designation of the discipline as 'vale tudo', 'pancrace' or 'combat libre' in that era. This format — multiple bouts in a single day under professional rules — produced competitive conditions demanding the highest levels of technical versatility, tactical adaptability, physical conditioning and emotional-psychological resilience; precisely the dimensions that the FLCPF (Loio, 2026) identifies as constitutive of elite combat performance. The 13 editions analysed in this study (18th–30th, 2005–2017) constituted the event's mature phase, characterised by the highest level of international participation — athletes from over 35 countries across Europe, the Americas, Asia, Africa, and the post-Soviet space — and by the period of systematic observational data collection that forms the empirical basis of the Fernando Loio Combat Performance Framework (FLCPF; Loio, 2026).

A persistent and statistically salient observation across all 13 analysed editions was the disproportionate dominance of Russian and — most significantly — Dagestani athletes in competitive outcomes. This cohort consistently produced the highest number of victories, the highest technical standard as assessed by systematic observational methodology (Loio et al., 2020a, 2020b, 2020d), and the most frequent transitions to elite international careers in the world's most important combat sports competitions. Understanding why this dominance occurred — and why it persists globally across MMA, boxing, and grappling — constitutes the central research question of this study. The FLCPF (Loio, 2026) provides the analytical framework: a model derived precisely from the observation of this competitive context, proposing that elite combat performance emerges through the interaction

¹ The WUFC editions were sanctioned primarily by the following international organisations: UIPDA — Union Internationale de Pancrace et Disciplines Assimilées; PLP — Professional League of Pankration; RPF — Russian Pankration Federation; IFMA-FF — International Federation of Martial Arts - Free Fight; FPRD — Federation 'Pankration' of Republic Dagestan; RCP — Russian Center Pankration; IF FCF — International Federation of Full Contact Fighting; IKF — International Kickboxing Federation; WKU — World Kickboxing Union; WKL — World Kickboxing League; GBMA — Golden Belt Martial Arts Association; WBL — World Boxing League.

of technical-tactical versatility, anticipation, contextual adaptability, representative interaction, combat affordances, adaptive transfer, and physiological integration.

1.1 The Fernando Loio Combat Performance Framework (FLCPF)

The FLCPF (Loio, 2026; DOI: 10.17605/OSF.IO/9E872) is an original ecological-integrative conceptual model grounded in longitudinal observational evidence from 170 elite ultimate full-contact fights involving 340 international fighters from 38 countries, observed across WUFC Championships between 2008 and 2017 (Loio, 2021). The framework proposes five fundamental assumptions: (1) combat performance is adaptive rather than purely technical; (2) successful behaviour emerges from perception-action coupling (Araújo et al., 2006; Davids et al., 2013); (3) contextual variability drives skill adaptation; (4) physiological functionality constrains technical-tactical expression (Franchini & Takito, 2014); and (5) representative training environments facilitate adaptive transfer to competition (Renshaw et al., 2019). Seven complementary dimensions constitute combat expertise: technical-tactical versatility, anticipation, contextual adaptability, representative interaction, combat affordances, adaptive transfer, and physiological integration (Loio, 2026; Table 1). The FLCPF extends existing developmental models — the LTAD (Balyi & Hamilton, 2004) and DMSP (Côté et al., 2003) — by being grounded in empirical observational data from elite pankration/MMA rather than general sport participation, by explicitly including ecological and affordance-perception dimensions, and by foregrounding adaptive transfer as the central connecting mechanism between all other dimensions.

Table 1. The Fernando Loio Combat Performance Framework: Seven Dimensions (Loio, 2026)

FLCPF Dimension	Functional Description	Combat Performance Outcome	WUFC Evidence
Technical-Tactical Versatility	Capacity to perform multiple efficient actions across striking, grappling, and transition phases (Loio et al., 2020a)	Greater adaptability; exploitation of contextual opportunities	Winners showed superior efficiency across all combat distances and styles (Loio et al., 2020a); confirmed in 170 WUFC elite fights
Anticipation	Recognition of opponent intentions before his/her attack (peripheral vision); perception-action coupling (Loio et al., 2020b; Milazzo et al., 2016)	Faster, more efficient counteroffensive responses	Anticipated counterattacks were the most efficient temporal response; WUFC athletes such as Valiev and Sultan Aliev exemplify this capacity
Contextual Adaptability	Continuous adjustment of behaviour to changing constraints and opportunities (Araújo et al., 2006; Davids et al., 2013)	Tactical efficiency; exploitation of affordances	Multi-disciplinary background of Eastern European WUFC athletes enabled adaptability across striking and grappling phases
Representative Interaction	Continuous adaptation to opponent behaviour under competitive constraints (Renshaw et al., 2019)	Competitive transfer; realistic decision-making	WUFC's open international platform placed athletes in maximally varied competitive interactions — a natural representative learning environment
Combat Affordances	Recognition and exploitation of actionable opportunities as they emerge (Hristovski et al., 2006; Araújo et al., 2006)	Decision-making quality; tactical intelligence	Winners exploited distance-specific affordances more effectively; documented in 170 WUFC fights across ground fighting, counteroffensive, and defensive phases

FLCPF Dimension	Functional Description	Combat Performance Outcome	WUFC Evidence
Adaptive Transfer	Capacity to apply previously acquired solutions to novel, changing, or unstable competitive situations (Loio, 2026)	Performance stability across variable contexts	Elite WUFC athletes (e.g., Magomedkerimov, Bibulatov) demonstrated seamless transition from pankration platform to UFC/PFL environments
Physiological Integration	Maintenance of technical-tactical functionality under progressive fatigue (Franchini & Takito, 2014; Loio et al., 2022a)	Sustained efficiency; reduced performance deterioration	Physiological fatigue affected perception, timing, and tactical regulation across WUFC competitive rounds; conditioning foundation of Soviet-trained athletes

Note. DOI: 10.17605/OSF.IO/9E872. Framework grounded in observational analysis of 170 elite WUFC fights (2008–2017; Loio, 2021) and integrated with ecological dynamics (Araújo et al., 2006; Davids et al., 2013), representative learning design (Renshaw et al., 2019), and physiological performance research (Franchini & Takito, 2014).

1.2 Research Questions

The study addresses three explicit research questions: (RQ1) What factors — motivational, cultural, disciplinary, technical-tactical, physical, and emotional-psychological — explain the consistent dominance of Russian and Dagestani athletes in WUFC competition (editions 18–30)? (RQ2) How does the Soviet–Russian combat sports cultural tradition map onto the seven FLCPF dimensions, and does this mapping explain competitive dominance at WUFC and subsequent elite international careers? (RQ3) What evidence exists, across all combat sports disciplines, for the sustained global competitive success of athletes from the same institutional tradition observed at WUFC? The principal investigator's direct participation in hundreds of international events across Russia and the post-Soviet states — including high-level events in multiple cities throughout the Russian Federation and satellite countries — provides the prolonged engagement (Lincoln & Guba, 1985) and tacit knowledge (Polanyi, 1966) that directly informs the analysis of RQ1 and RQ2.

2. Material and Methods

2.1 Study Design

A convergent triangulation mixed-methods design (Creswell & Plano Clark, 2017) combined three complementary strands conducted independently and integrated at interpretation: (a) two qualitative semi-structured interviews analysed as case illustrations (Patton, 2002); (b) systematic archival WUFC athlete career tracking; and (c) narrative literature review for technical contextualisation of the Soviet–Russian combat sports tradition. It is methodologically significant that the competitive format of the WUFC required athletes to compete in two, three or four consecutive bouts on the same day under professional rules (open-finger gloves, groin guard, mouthguard only; no time limits between bouts beyond standard recovery), producing cumulative physiological and psychological demands that amplify the competitive differentiation between athletes: a technically adequate but physically insufficient athlete is eliminated in the first round, while the eventual champion must sustain elite-level technical-tactical performance across the full sequence of bouts. This format thus functions as a natural physiological filter, ensuring that documented WUFC champions represent a genuinely elite competitive standard. This design was selected because the central research question — why do Russian and Dagestani athletes dominate? — requires both the institutional depth of qualitative

interview data (from practitioners embedded in the system) and the documentary breadth of systematic archival evidence (demonstrating that the pattern of dominance at WUFC extends into global elite careers).

2.2 Qualitative Strand: Interview Participants

Two participants were selected by purposive sampling (Patton, 2002) to provide maximum variation in perspective on the central research question — one representing the athlete-coach perspective from within the Eastern European combat sports ecosystem, and one representing the institutional-administrative perspective from the apex of Russian and international pankration governance.

Interview Participants — Biographical Profiles

INTERVIEWEE 1 — Andranik Artemovich Ashugyan (Armenia/Russia). Born 10 May 1967, Anapa, Russia. Academic formation: University of Physical Culture and Sport, Krasnodar (graduated 1990). Multi-disciplinary athletic background across Greco-Roman wrestling, football, kickboxing, hand-to-hand combat, pankration, taekwondo, sambo, combat sambo, grappling, and M-1 MMA. Master of Sports of Russia; Black Belt; winner and medallist at Russian and World Championships across multiple disciplines. WUFC competitive record: four-time world champion across four editions (2006, 2007, 2012, 2015). M-1 Global competitor. Active in combat sports tournaments until 2015 (beach football tournaments ongoing). Coaching career: began coaching in 1990 alongside competitive career; founded Sports Club Legion in 1992; coaches currently active in MMA and football. Athletes trained include: World Champions in Mix Fight M-1, Combat Sambo and Pankration — Martin Malkhasyan, Amar Suloev, Ansar Chalangov; internationally renowned fighters Sergei Kharitonov, Hajimurad Antigoulov, and Alexei Oleynik. Interview conducted 2026. Provides: multi-disciplinary athlete-coach perspective on training methodology, technical-tactical development, and the Eastern European competitive culture at WUFC (personal communication, 2026).

INTERVIEWEE 2 — Vladimir Mikhailovich Stepkin (Russia). Born 22 March 1956, Romanovo village, Ust-Pristansky District, Altai Krai. Academic formation: Omsk State Institute of Physical Culture and Sport (1978–1982); Russian International Olympic University, Sochi (2015). Military background: Soviet Army, Carpathian Military District, special reconnaissance battalion — District Champion in hand-to-hand combat (1983–84). Institutional roles: President, All-Russian Pankration Federation (since 2010); President, European Pankration Federation; 1st Vice-President, World Pankration Association Federation (WPAF); Head, WPAF Technical Committee; International Category Referee; Director, Russian Sports Centre Pankration, Omsk (founded 1995). Over 44 years of experience in sport organisation (200+ events at regional, national and international level). Athletes developed include: Sultanmagomedov Kavkaz, Azad Askerov, Alexander Shlemenko, Alexander Sarnavsky, Anatoly Tokov, Andrei Koreshkov, Azamat Amagov — multiple Champions of Russia, Europe and the World. Honours: Honoured Worker of Physical Culture and Sport of Omsk Oblast; Honorary Certificates from the Minister of Physical Culture and Sport and the Ministry of Defence of the Russian Federation. Interview conducted 3 March 2026, All-Russian Pankration Federation headquarters, Moscow. Provides: definitive institutional and cultural perspective on Russian pankration athlete development, training structure, and the Caucasian cultural foundations of competitive dominance (Stepkin, personal communication, 3 March 2026).

Semi-structured interviews followed Kvale and Brinkmann (2009). Data from the two case illustrations were thematically organised following Braun and Clarke (2006). The interview guide covered five thematic domains: (a) athlete development age and primary discipline; (b) training structure, volume, and grappling-to-striking ratio; (c) anticipation and counter-attack methodology; (d) cultural and motivational factors of combat sports in the region; and (e) the most important factors explaining the success of Caucasian athletes internationally. Data are used as case illustrations (Patton, 2002) rather than as the basis for thematic generalisation — an epistemologically appropriate position given

the N=2 sample. Trustworthiness: credibility through prolonged engagement and triangulation with archival data; transferability through thick description (Geertz, 1973); dependability through audit trail; confirmability through explicit reflexive documentation (Mercer, 2007; Unluer, 2012).

2.3 Archival Strand and Reflexivity

All bouts analysed in this study were promoted by the principal investigator through the *Associação de Full Contact de Viseu* (AFCV), under the aegis of the *Federação Portuguesa de Full Contact* (formerly designated *Federação Portuguesa de Pankration, Free Fight e Full Contact*), and sanctioned by relevant international combat sports federations¹. The present study analyses exclusively bouts contested under the unified Ultimate Full Contact / Pankration / Free Fight / MMA rules in the elite male division, held at official WUFC World Championship editions in Viseu, Lamego and Peso da Régua. It should be noted that the WUFC organisation also promoted bouts under Full Contact, Boxing, Kickboxing, K-1, Muay Thai and Submission Grappling rules, as well as numerous additional events of significant international representation in Portugal — including events held in Ponte da Barca, Vizela, Guimarães, Porto, São Pedro do Sul, Midões, Santa Comba Dão, Castanheira de Pera, Fátima, Bombarral and Vialonga — which fall outside the scope of the present study. Their inclusion in future research would substantially expand the longitudinal dataset available for the analysis of international combat sports competition in Portugal.

Systematic archival cross-referencing of WUFC results (editions 18–30) with professional career databases (Sherdog, Tapology, UFC official records, BoxRec, ACA official database; minimum two independent sources per entry; all records verified June 2026) was conducted. Athletes were classified by three tiers corresponding to the FLCPF developmental pathways (Loio, 2026). The principal investigator's insider position (Mercer, 2007; Unluer, 2012) — as simultaneous founder/promoter (30 WUFC editions), athlete, coach (Loio Team: trained and provided technical guidance to Luís Neves (WUFC European Champion 1997, 2007, WUFC World K-1 Rules Champion 2014), Celso Costa (IKF Kickboxing Champion 1997, WKL World Kickboxing Champion 1998), Mário Monteiro (IKF European Full Contact Champion 1999), Vitaliy Kalynyuk (WUFC World Ultimate Full Contact Champion 2015, MMA Champion in Spain and Sweden, Submission Grappling Champion in Belgium), Rafael Silva (6 times WUFC World Ultimate Full Contact Champion, MMA, Pankration and Free Fight Champion in Russian, Ukraine, Sweden, Brazil, Switzerland, England, France and Spain), Oscar Nave (3 times WUFC World Ultimate Full Contact Champion, WUFC World K-1 Rules Champion 2014, MMA Champion in Spain), André Batista (Full Contact Champion in Spain, France, England and Submission Grappling Champion in Belgium), Sandra Pinhel (WUFC European Full Contact Champion 2001), Fernando Soares (WUFC European Ultimate Full Contact Champion 1998, 2000), Michaylo Tomyshynets (WUFC European Full Contact Champion 2003), Alexandru Capatina (WUFC World Pugilato Champion 2011), among others champions), federation officer, manager, and international representative with direct presence in Russia and the post-Soviet space across dozen of events — provides tacit knowledge (Polanyi, 1966) and prolonged engagement (Lincoln & Guba, 1985) that is directly relevant to answering RQ1 and RQ2. This position entails the reflexive obligations documented in §2.4.

2.4 Methodological Reflexivity

Insider Research Declaration (Mercer, 2007; Unluer, 2012)

Insider roles of the principal investigator (Fernando Loio): ① **ATHLETE** — competed within the WUFC system; ② **COACH** — Loio Team (Luís Neves, Mário Monteiro, Celso Costa, Sergiu Ghilescu, Hugo Augusto, Sandra Pinhel, Rafael Silva, Augusto Gomes, Vitaliy Kalynyuk, Edi Vicente, André Batista, Bernardino Figueiredo, Karan and Rahul Trivedi, among others champions); ③ **PROMOTER & FOUNDER** — founded and directed WUFC for 30 editions (1988–2017); ④ **FEDERATION OFFICER & MANAGER** — associative leadership and international athlete management; ⑤ **INTERNATIONAL REPRESENTATIVE** — hundreds of events across four continents, with extensive direct presence at high-level events throughout the Russian Federation and post-Soviet satellite countries.

International recognition validating insider expertise: In 2004, Fernando Loio was distinguished in Barnaul, Russia (3 April 2004, Portugal vs Russia — Cup of Challenge Professional Pankration) with the title of Highest Level Pankration Coach by the Russian Pankration Federation and the Professional League of Pankration, awarded by GM Vladimir Klenshev. Subsequently inducted into the Hall of Fame of the World Pankration Dan Ranking and World League of Pankration — World Grand Master, 10th Dan. In 2015, distinguished at the highest international level for outstanding services to Martial Arts and Combat Sports, Tehran, Iran. These distinctions, conferred by the very institutional system whose technical tradition this study analyses, constitute external peer validation of the insider expertise and tacit knowledge (Polanyi, 1966) claimed in this section (Lincoln & Guba, 1985; Mercer, 2007).

Epistemic status: Insider position enhances ecological validity (Geertz, 1973) and provides tacit knowledge (Polanyi, 1966) of the Russian/Dagestani combat sports ecosystem described in §3.4–3.5, while requiring: (a) triangulation with independent interview and archival data; (b) explicit reflexive documentation (Mercer, 2007; Unluer, 2012); (c) a second interview source (Stepkin) independent of the WUFC organizational ecosystem.

3. Results

3.1 Russian and Dagestani Dominance at WUFC: The Central Empirical Finding

Across 13 analysed WUFC editions (18th–30th, 2005–2017), Russian and Dagestani athletes consistently produced the highest number of victories and the highest observable technical standard across in most Men's Elite weight categories under unified professional rules — Ultimate Full Contact / Pankration / Free-fight / MMA, 1×10+5-minute rounds in all bouts). The quantitative foundation for the dominance documented in this study is provided by the companion WUFC longitudinal study (Loio, 2026b), which constitutes the first systematic statistical analysis of the entire documented history of the WUFC — 30 editions (1988–2017), 689 participations, 346 documented bouts and 40 countries across 4 continents. The study encompasses two complementary periods: a foundational period (editions 1–17, 1988–2004) with partial records covering 62 main bouts, and a main period (editions 18–30, 2005–2017) with complete records covering 284 bouts. The Russian Federation produced 155 combined participations with a win rate of 65.8% (95% Wilson CI [58.0%–72.8%]). Dagestan — analysed separately as an autonomous republic — recorded 67.2% win rate across 61 participations (95% Wilson CI [54.7%–77.7%]; confidence interval amplitude of 23.0 percentage points), the statistically most robust high-performance result of any region in the entire dataset. Ukraine produced 106 participations with a 50.0% win rate (95% Wilson CI [40.6%–59.4%]), the most consistent non-Russian-bloc nation. Portugal registered 179 combined participations with a 45.3% win rate, structurally explained by the host-nation effect. The companion study (Loio, 2026b) also established that the KO rate is a structural constant of Ultimate Full Contact competition, remaining stable at 10.6–

11.3% across four independent datasets over 30 years with all Wilson 95% CIs overlapping. Finalization rates consistently exceeded MMA professional averages of 46–50% documented in the literature (Bueno et al., 2022; Dal Bello et al., 2019) — 62.9% foundational / 76.1% main period / 80.6% video observation. Most importantly for the present study, winners demonstrated superiority across all combat styles simultaneously: submission grappling (66.93% vs 36.78%, $p<0.001$), ground striking (65.51% vs 26.87%, $p<0.001$), and stand-up striking (46.36% vs 21.30%, $p<0.001$) — confirming that WUFC competitive dominance requires not single-style specialisation but complete technical-tactical versatility (Loio, 2026b; Miarka et al., 2019), directly instantiating the FLCPF's technical-tactical versatility dimension (Loio, 2026). This dominance was not confined to single weight categories or single editions but was recurrent across the entire 13-year analysed period, representing a systematic rather than incidental competitive advantage. Observational evidence from the 170 fights comprising the WUFC dataset (Loio et al., 2020a, 2020b, 2020d; Loio, 2021) demonstrated that winners — disproportionately from the Russian/Dagestani cohort — consistently displayed greater technical-tactical versatility, superior anticipation and counteroffensive timing, more efficient defensive adaptability through evasion rather than blocking, and dominant ground fighting control (Loio et al., 2020a). These characteristics directly map onto the FLCPF's seven dimensions (Loio, 2026), constituting both the empirical origin of the framework and its most direct validation.

Table A presents the complete longitudinal dataset of WUFC competitive participations across all 30 editions (1988–2017) for all 40 participating countries, with 95% Wilson confidence intervals. The data confirm the Russian Federation's structural dominance (65.8% win rate, $n=155$) and Dagestan's competitive excellence (documented within the Russian Federation cohort), while illustrating the event's global reach — 40 countries across 4 continents — and providing the quantitative foundation for the qualitative analysis of this study. Although Dagestan forms part of the Russian Federation, it is analysed separately in Table A. This methodological choice is grounded in the qualitative evidence gathered in this study: Vladimir Stepkin (President, All-Russian Pankration Federation; 1st Vice-President, World Pankration Association Federation) explicitly described the Caucasus as a culturally distinct combat sports ecosystem, where wrestling is, in his words, "absorbed with mother's milk." The data support this distinction — when disaggregated, Dagestan recorded the highest win rate of any country or region in the dataset, surpassing the Russian Federation as a whole, and is the only entry besides Russia to achieve Elite-level statistical confidence across 30 editions.

Table A. WUFC Performance Classification with 95% Wilson Confidence Intervals — All Countries with 2+ Participations (Editions 1–30, 1988–2017; Source: Loio, 2026b, Table 3)

Country/Region	Ed. 1–17	Ed. 18–30	Combined n	Win %	95% CI (Wilson)	CI Width	Classification
Dagestan	0	61	61	67%	[54.7%–77.7%]	23.0 pp	Elite — high confidence
Russian Federation	3	152	155	66%	[58.0%–72.8%]	14.8 pp	Elite — high confidence
Ukraine	3	103	106	50%	[40.6%–59.4%]	18.8 pp	High — high confidence
Moldova	2	8	10	70%	[39.7%–89.2%]	49.5 pp	High — limited confidence
Armenia	0	7	7	71%	[35.9%–91.8%]	55.9 pp	High — limited confidence
Belgium	0	13	13	46%	[23.2%–70.9%]	47.7 pp	Medium — moderate confidence
Spain	8	23	31	39%	[23.7%–56.2%]	32.5 pp	Medium — moderate confidence
Brazil	17	36	53	42%	[29.3%–54.9%]	25.6 pp	Medium — moderate confidence

Country/Region	Ed. 1–17	Ed. 18–30	Combined n	Win %	95% CI (Wilson)	CI Width	Classification
United Kingdom (England, Ireland & Scotland)	3	16	19	47.4%	[27.3%–68.3%]	41.0 pp	Medium — moderate confidence
Sweden	0	23	23	43%	[25.6%–63.2%]	37.6 pp	Medium — moderate confidence
France	9	29	38	34%	[21.2%–50.1%]	28.9 pp	Medium — moderate confidence
Portugal	60	119	179	45%	[38.1%–52.6%]	14.5 pp	Medium — high confidence (host)
Argentina	0	5	5	60%	[23.1%–88.2%]	65.1 pp	Limited confidence (n<10)
Cape Verde	0	4	4	100%	[51.0%–100%]	49.0 pp	Insufficient sample (n<5)
Angola	0	4	4	75%	[30.1%–95.4%]	65.3 pp	Insufficient sample (n<5)
Italy	2	2	4	25%	[4.6%–69.9%]	65.3 pp	Insufficient sample (n<5)
Azerbaijan	1	2	3	67%	[20.8%–93.9%]	73.1 pp	Insufficient sample (n<5)
Bulgaria / USA / Czech Rep. / Monaco	0	3 each	3 each	var.	varied	56–73 pp	Insufficient sample (n<5)
India / Georgia	varied	varied	2 each	100%	[34.2%–100%]	65.8 pp	Insufficient sample (n<5)
St. Kitts / Romania	0	2 each	2 each	50%	[9.5%–90.5%]	81.0 pp	Insufficient sample (n<5)
Germany	1	1	2	0%	[0.0%–65.8%]	65.8 pp	Insufficient sample (n<5)
All n=1 countries (13 total)	varied	varied	1 each	varied	[0–100%]	79.3 pp	Insufficient sample (n<5)

Note. Source: Loio (2026b), Table 3. Data: WUFC World Ultimate Full Contact — Associação (1988–2017). 95% Wilson CI method (Wilson, 1927). Classification criteria: Elite = lower CI bound $\geq 55\%$, $n \geq 20$; High = lower bound $\geq 40\%$; Medium = lower bound $< 40\%$; Insufficient sample = $n < 10$. The CI amplitude is more informative than the point estimate: Dagestan (23.0 pp) and Russia (14.8 pp) are the only entities with intervals narrow enough for valid Elite-level inference. Nations with higher observed rates but wider CIs (Armenia 55.9 pp, Moldova 49.5 pp) cannot be compared to Dagestan/Russia at the inferential level. Columns Ed. 1–17: partial records, foundational period only. † $n < 5$: insufficient sample regardless of observed rate. pp = percentage points. The 40 countries span 4 continents (Europe, Americas, Africa, Asia), confirming the WUFC's status as a genuinely global combat sports platform. During the foundational period (1988–2004), the principal discipline was designated 'pancrace', 'vale tudo' or 'combate livre'; the term 'MMA' became internationally generalised from approximately 2005.

Table B. Russian Federation — Subnational Regional Breakdown with 95% Wilson Confidence Intervals (WUFC, 1988–2017; Loio, 2026b)

Region	Ed. 1–17	Ed. 18–30	Combined	Wins	Win %	95% CI (Wilson)	% Fed.
Russia (fed.)	0	88	88	55	62.5%	[52.1%–71.9%]	57%
Dagestan	0	61	61	41	67.2%	[54.7%–77.7%]	39%
Russia (found. n/s)	3	0	3	3	100%	[43.9%–100%] †	2%
Chechnya †	0	2	2	2	100%	[34.2%–100%] †	1%
Kabardino-Balkaria †	0	1	1	1	100%	[20.7%–100%] †	1%
TOTAL	3	152	155	102	65.8%	[58.0%–72.8%]	100%

Note. Source: Loio (2026b), Study 1, Table 2. Dagestan ($n=61$, 67.2%, 95% CI [54.7%–77.7%], amplitude 23.0 pp) and the Russian Federation ($n=155$, 65.8%, CI [58.0%–72.8%], amplitude 14.8 pp) are the only entities in the WUFC dataset with Elite-level win rates supported by statistically robust Wilson CIs. Russia (found. n/s) = 3 foundational period participations without specified subnational region. † $n < 5$: insufficient sample.

Key Empirical Finding: WUFC Observational Data → Dagestani Dominance Pattern

Loio et al. (2022b) — 170 elite WUFC fights: 'Boxing skills showed higher frequency and efficiency than kicking, knees or elbows during stand-up combat; winners showed significantly greater boxing skill use than

losers; most KOs caused by fist blows in combinations and counterattacks; even in ground fighting, fist techniques (ground and pound) were superior to submission techniques.' According to Loio et al. (2022b), technical-tactical punching actions—boxing combined with all the biomechanical movements associated with their execution (body rotations, displacements, footwork)—generate striking efficiency and prepare the athlete for the execution of kicking techniques or throws through appropriate combinations and distances. The Russian/Dagestani athletes — trained in the Soviet boxing school on top of sambo and wrestling foundations — were precisely those who demonstrated the greatest mastery of this pattern (Loio et al., 2020a, 2020b; Loio, 2026).

3.2 Interview 1 — Andranik Ashugyan: The Athlete-Coach Perspective

Andranik Ashugyan competed at WUFC across four editions spanning nine years (2006–2015), winning world titles in 2007 (-60kg) and 2012 (-57kg) and competing at M-1 Global — one of the major post-Soviet MMA promotions — before transitioning to coaching. His competitive arc is itself a model of the longitudinal development pathway described by the FLCPF: nine years of sustained high-level international competitive exposure, producing the technical automaticity that Ericsson et al. (1993) identify as the defining characteristic of expert performance. Ashugyan's account consistently foregrounded technical breadth as the defining differentiator between Eastern European competitors and their opponents at WUFC: 'you cannot win at this level with only one dimension; you need to be comfortable everywhere' (personal communication, 2026). This statement directly articulates the FLCPF dimension of technical-tactical versatility (Loio, 2026) as a prerequisite for competitive success in the WUFC context, and explicitly identifies multi-disciplinary preparation — the simultaneous development of striking, grappling, ground fighting, and defensive regulation — as the mechanism through which Eastern European athletes achieved their consistent advantage.

On the role of motivational and disciplinary factors, Ashugyan's account reflected a competitive culture in which preparation is total and non-negotiable: the Eastern European athlete at WUFC arrived not merely technically prepared but psychologically committed, disciplined to a standard that reflected the cultural weight of combat sports in their communities of origin. This emotional-psychological readiness — the capacity to maintain competitive intensity and tactical clarity under pressure, across multiple rounds — is precisely what the FLCPF captures in its dimensions of contextual adaptability and physiological integration (Loio, 2026): the ability to sustain adaptive functional performance when physical and tactical demands are at their most severe (Franchini & Takito, 2014). Ashugyan's transition to coaching further instantiates the FLCPF's adaptive transfer dimension (Loio, 2026): the systematic repurposing of accumulated competitive experience as pedagogical capacity, with the tacit knowledge acquired through nine years of elite international competition (Polanyi, 1966) becoming the primary content of his coaching practice.

3.3 Interview 2 — Vladimir Stepkin: The Institutional and Cultural Perspective

Vladimir Mikhailovich Stepkin occupies the apex of Russian and international pankration governance: President of the All-Russian Pankration Federation, President of the European Pankration Federation, 1st Vice-President of the World Pankration Association Federation, and Head of the WPAF Technical Committee. His military background — Soviet Army special reconnaissance battalion, District Champion in hand-to-hand combat — and his 44 years of experience in sport organisation (including

the development of internationally-successful athletes such as Alexander Shlemenko, Anatoly Tokov, Andrei Koreshkov, and Azamat Amagov) make him the definitive institutional informant for understanding the structural conditions that produced the Russian and Dagestani dominance observed at WUFC. His interview (personal communication, 3 March 2026, All-Russian Pankration Federation, Moscow) provided the most direct available institutional account of how the Russian combat sports development system functions.

On the developmental trajectory, Stepkin stated that athletes begin at age 5–6 with general and special physical preparation — 'gymnastics, acrobatics — learning to move correctly, fall correctly and so on' — with official competitive activity beginning at 12 years (personal communication, 3 March 2026). This early initiation age, combined with the 3–5 years to international level, places elite Russian/Dagestani pankration athletes at international competitive standard by age 15–17 — a developmental timeline directly consistent with the deliberate practice model of Ericsson et al. (1993) and with the FLCPF's identification of longitudinal competitive exposure as the primary mechanism of elite performance development (Loio, 2026). The primary foundational technical base is wrestling, sambo, judo, and grappling — 'the core foundational technique' — consistent with the FLCPF dimension of technical-tactical versatility (Loio, 2026; Franchini et al., 2011).

On training structure, Stepkin confirmed a 50%/50% ratio of grappling to striking — a balance that directly produces the technical-tactical versatility and contextual adaptability identified by the FLCPF as central to elite performance (Loio, 2026; Loio et al., 2022b). On transitions between standing and ground combat, he stated that 'everything depends on individual qualities — whoever has better wrestling, whoever has better striking technique — that is where we place the emphasis' (personal communication, 3 March 2026). This individualisation principle — adapting training emphasis to each athlete's natural strengths while maintaining foundational breadth — is precisely the pedagogical expression of the FLCPF's adaptive transfer dimension (Loio, 2026): building the conditions under which each athlete can maximally transfer their specific strengths across combat contexts. On anticipated counterattack methodology, Stepkin described a system of technical automaticity: 'as a rule, every athlete has 2 or 3 main techniques which he works to automaticity, and throughout the entire fight he tries to bring his opponent into a position in which he can execute that technique' (personal communication, 3 March 2026). This precisely maps onto the FLCPF dimension of anticipation: the proactive creation of offensive opportunities through tactical positioning rather than purely reactive response (Loio, 2026; Loio et al., 2020b; Milazzo et al., 2016).

On cultural foundations, Stepkin confirmed that sambo is included in the school curriculum in some regions of Russia — an institutional embedding of grappling-based combat sport that has no direct equivalent in Western European or American combat sports development systems. The structural dominance of the Rear-Naked Choke as primary submission method — documented across all WUFC datasets (Loio, 2026b) and consistent with elite MMA competition broadly (Salinas et al., 2024) — is directly explained by the back control position that Dagestani wrestling training systematically develops. On the most important factor explaining Caucasian athlete success, his response was unambiguous and emphatic: 'In the Caucasus, wrestling is the primary sport from childhood! Wrestling is absorbed with mother's milk!!! It is national!!!!' (personal communication, 3 March 2026). This response — from the President of the All-Russian Pankration Federation and 1st Vice-President of

the World Pankration Association — constitutes the most authoritative available statement on the cultural-institutional foundations of Dagestani and Caucasian competitive dominance in pankration and combat sports. It directly confirms the FLCPF's identification of representative interaction (Loio, 2026) — the continuous adaptation of behaviour through competitive environments representative of the highest demands of the sport — as the mechanism through which Caucasian cultural wrestling tradition translates into elite combat sports performance: the wrestling hall as community centre, competitive wrestling as childhood play, the opponent as daily training partner from age 5 or 6. On the trajectory of athletes coming from Olympic sports or directly from MMA, Stepkin confirmed that over the past 30 years 'we have formed our own school of mixed combat sports — a universal fighter — in which wrestling, joint locks, chokes and striking technique are combined. Preference is given to foundational judo and sambo technique' (personal communication, 3 March 2026). This is a precise institutional description of the FLCPF's technical-tactical versatility dimension as developed within the Russian combat sports ecosystem (Loio, 2026).

Key Interview Finding: Stepkin on Caucasian Wrestling Culture

Stepkin (personal communication, 3 March 2026): 'In the Caucasus, wrestling is the primary sport from childhood! Wrestling is absorbed with mother's milk!!! It is national!!!' — This statement, from the President of the All-Russian Pankration Federation and 1st Vice-President of the World Pankration Federation, provides the most authoritative institutional confirmation of the cultural-motivational foundations of Dagestani/Caucasian competitive dominance. It directly instantiates the FLCPF dimension of Representative Interaction (Loio, 2026): the cultural embedding of competitive wrestling as the primary childhood activity produces the depth of grappling-based representative experience that no formalised training programme alone can replicate.

3.3b The WUFC as a Launch Pad: Seven Years of Dagestani Presence Before the UFC

One of the most significant — and least documented — contributions of the WUFC to global combat sports development is its role as an international competitive platform for Dagestani and Russian athletes during the critical period between 2005 and 2012, before these athletes began to enter the UFC in significant numbers. Dagestani and Russian fighters competed at WUFC events across seven consecutive years (editions 18–24, 2005–2011) before the watershed moment of 2012, when Khabib Nurmagomedov — the defining figure of Dagestani MMA — made his UFC debut on 20 January 2012 (UFC.com, 2026; Sherdog, 2026). In 2013, the first WUFC athletes began entering the UFC directly: Sultan Aliev — 15th WUFC champion (2009) and 19th WUFC champion (2013) — made his UFC debut in May 2013, becoming one of the first Dagestani fighters to compete in the Octagon. Magomed Bibulatov — 19th WUFC world champion (2013) — subsequently reached the UFC, as did multiple other WUFC athletes across different promotions. The chronological alignment is not coincidental: Dagestani and Russian athletes used the WUFC as the highest available level of international hybrid combat sports competition during the years when the UFC was not yet accessible to them. The WUFC provided competitive credentials, international exposure, and verified performance records that directly facilitated their subsequent entry into elite international promotions.

The WUFC Launch Pad: Chronology of Dagestani Entry into Global Elite Combat Sports

The WUFC as a 7-Year Launch Pad (2005–2012): Dagestani and Russian athletes competed at WUFC events across seven consecutive years before entering the UFC and major international promotions. Key sequence: WUFC 18th edition (2005) — first systematic Dagestani presence; WUFC 2008 — Magomedkerimov's professional MMA debut; WUFC 2009 — Sultan Aliev wins world title; WUFC 2010 — Timur Valiev's professional debut; January 2012 — Khabib UFC debut (the first major UFC landmark for Dagestani MMA); May 2013 — Sultan Aliev UFC debut; 2013 — Bibulatov competes at WUFC and subsequently enters UFC and WSOF pipeline. The WUFC was not merely a competitive event: it was the primary international competitive credential and performance validation platform for this generation of Dagestani fighters in the years before the UFC became accessible to them.

Beyond the 22 WUFC athletes documented in Table 2, the WUFC competitive records reveal numerous additional Russian and Dagestani athletes who won WUFC world titles and subsequently competed professionally in Russian regional circuits — including Magomedov Shamil (Absolutes champion 2007), Tilsov Arsen (-93kg champion 2010), Jamal Magomedov (-70kg champion 2010), Aushev Mukhamed (-78kg champion 2010), Magomedov Alikhan (-91.5kg champion 2013), Gadzhiev Gadzhi (-88.5kg champion 2013), Magomedov Kamal (+91.5kg champion 2014), Sulejmanov Murtuz (-84.5kg champion 2014), Dadaev Abdula (-72.5kg champion 2014), among others — whose subsequent professional careers could not be verified to the two independent-source standard required for Table 2 inclusion. This limitation is explicitly acknowledged: the 22 documented WUFC athletes represent a conservative lower bound of WUFC's developmental contribution to global combat sports, not its ceiling. Additionally, French kickboxer Stéphane Susperregui — WUFC K-1 - 88kg champion 2007 — subsequently competed in GLORY Kickboxing (debut 2013, London), held multiple WKN and WKA world titles, and was ranked #5 globally at light heavyweight by Combat Press (2022), demonstrating that WUFC's talent pipeline extended across kickboxing and K-1 disciplines beyond MMA and pankration.

3.4 Table 2 — WUFC Athletes: Elite International Career Cross-Reference (2005–2026)

Table 2 documents 22 WUFC athletes (editions 18–30) with verified significant professional or institutional careers across international combat sports competitions — including MMA, boxing, pankration, and grappling — in all major promotions worldwide. Russian and Dagestani athletes are highlighted to illustrate the direct pipeline from WUFC competition to global elite careers, answering RQ3. Minimum two independent sources per entry; all records verified June 2026.

Athlete	Nat.	WUFC Record	Elite Career & Level	Promo	Coach/Team
Amir Albazi	Iraq/Sweden	16th WUFC 2010 -59kg winner (KO) vs Bagandov (Dagestan)	UFC Flyweight Top 5 (17-3). Former UCMMA & FSC bantamweight champion. Multiple UFC bonuses. Title challenge 2023. FightZone Stockholm/London Shootfighters. Competed at WUFC aged 16 (Ericsson et al., 1993). FLCPF pathway: Technical-Tactical Versatility → Adaptive Transfer.	UFC/Zuffa	FightZone Stockholm
Timur Valiev	Dagestan, Russia	16th WUFC 2010 1st professional	UFC/PFL/ACA (19-5-1NC). 1st professional MMA fight at WUFC 2010 (Sherdog, 2026; Tapology,	UFC/PFL	DagFighter / Jackson-Wink Pro debut at WUFC

Athlete	Nat.	WUFC Record	Elite Career & Level	Promo	Coach/Team
		MMA fight vs Olle Raberg (L def)	2026). WSOF vet, 2× PFL 3-0. UFC KO debut vs Striegl 2020. TUF 31. Career trajectory: Wushu Sanda → kickboxing → Muay Thai → pankration (Bleacher Report, 2016). Exemplifies FLCPF Contextual Adaptability and Adaptive Transfer dimensions (Loio, 2026).		
Magomed Bibulatov	<i>Chechnya (rep. France)</i>	19th WUFC 2013 -63.5kg CHAMPION vs Nave PT (final)	WSOF Flyweight World Champion 2015. UFC 14-4. ACA Bantamweight Champion. Career record 21-4. Retired 2024. Gladiator FC France → Akhmat FC.	UFC/WSOF	Gladiator FC / Akhmat FC
Sultan Aliev	<i>Dagestan, Russia</i>	15th WUFC 2009 -91kg winner; 19th WUFC 2013 -84.5kg CHAMPION (KO 0:28)	UFC Welterweight + Bellator (15-3). 2× WUFC champion. Combat Sambo European Ch. 2009. Bellator S8 MW Tournament. UFC debut Fox 14 Jan 2015. Eagles MMA under Abdulmanap Nurmagomedov. Int'l Master of Sports Combat Sambo (James et al., 2016).	UFC/Bellator	Eagles MMA (Abdulmanap Nurmagomedov)
Magomed Magomedkerimov	<i>Dagestan, Russia</i>	14th WUFC 2008 1st professional MMA fight vs Kalynyuk (Loio Team)	2× PFL Welterweight World Champion (2018 & 2023). Record 35-6. PFL 13-1. American Top Team. World Pankration Championships in Portugal & Bulgaria. 1st pro fight at WUFC 2008 vs Kalynyuk, coached by Fernando Loio (Sherdog, 2026; Tapology, 2026). FLCPF Adaptive Transfer: pankration platform → PFL world title (Loio, 2026).	PFL 2×	American Top Team Pro debut at WUFC
Artur Guseynov	<i>Russia (Dagestan — Makhachkala)</i>	21st WUFC 2015 -84kg CHAMPION (aband. vs Alberto Matos; TKO 1:75 vs Paulo Durão)	Record 27-13-1 (Tapology verified; Sherdog ID 14783). ProFC, ACA, RCC, Fight Nights Global, M-1. Consistent presence in Russia's top regional MMA circuit across multiple promotions. WUFC 2015 double win in same night: semifinal and final both by stoppage.	ProFC/ACA	ProFC / ACA / Fight Nights Global / RCC
Magomed Saadulaev	<i>Russia (Dagestan — Makhachkala)</i>	15th WUFC 2009 -78kg CHAMPION (sub. 7:35 vs Abasov; final sub. 3:16 vs Abasov)	Record 14-2-0 (Tapology 'The Rock' verified; Sherdog ID 44561; Makhachkala, Dagestan). ProFC 5 Russia vs Europe 2009, ACA circuit. Dominant grappler — both WUFC wins by submission. Confirmed Dagestani wrestling school profile.	ProFC/ACA	ProFC / ACA — Dagestan
Andrii Liezhniev	<i>Ukraine</i>	14th WUFC 2008 -63kg CHAMPION (TKO 3:19 vs Ghilescu; semi TKO 0:50 vs Ashugyan)	Record 22-11-0, 1NC (Tapology 'Iron' verified; Dnepropetrovsk, Ukraine). ProFC, EFN, ACA circuit. 2008 WUFC champion at -63kg, defeating Ghilescu (Moldova) in final and Ashugyan (Armenia/Russia) in semifinal.	ProFC/ACA	ProFC / EFN / ACA — Ukraine
Marat Pekov	<i>Russia (Kab.-Balk.)</i>	15th WUFC 2009 -61.5kg CHAMPION (2 wins incl. final)	Record 15-5. Cage Warriors FC. Helsinki Fight Night (Finland). WSOF/EFN. K Dojo / Warrior Tribe.	Cage Warriors	Cage Warriors FC

Athlete	Nat.	WUFC Record	Elite Career & Level	Promo	Coach/Team
Michal 'Háša' Hamršíd	<i>Czech Republic</i>	13th WUFC 2007 -65kg CHAMPION; 12th WUFC 2006 eliminator	MMA 23-10-2. Co-founder & owner GCF (Gladiator Championship Fighting) Czech Republic. FLCPF Pathway 3: athlete-to-promoter/institutional builder (Balyi & Hamilton, 2004).	GCF Czech	<i>Founded GCF Czech Republic</i>
Maratbek Kalabekov	<i>Dagestan, Russia</i>	14th WUFC 2008 -78kg CHAMPION; 15th WUFC 2009 - 70kg CHAMPION	2× WUFC world champion in consecutive editions. ProFC / ACA / EFN. North Caucasus combat pipeline — two different weight classes across two consecutive WUFC editions (Lenetsky & Harris, 2012).	ACA/ProFC	<i>ProFC / ACA Dagestani circuit</i>
Igor Sliusarchuk	<i>Ukraine</i>	16th WUFC 2010 +93kg finalist; 17th WUFC 2011 ½F; 18th WUFC 2012 +84.5kg CHAMPION (KO middle kick 6:29)	Record 24-11. 3× WUFC competitor. ACA / EFN / Oplot Challenge / ProFC. Eastern European heavyweight circuit.	ACA/ProFC	<i>ACA/EFN/Oplot Ukrainian heavyweight</i>
Shota Gvasalia	<i>Georgia</i>	22nd WUFC 2016 -84kg CHAMPION (2 TKOs incl. final vs Stanley)	Record 13-12-1 NC. GMC Fight Night, Fight Nation Championship, EMC. Georgian MMA representative (Côté et al., 2003).	GMC/Europe	<i>Georgian MMA representative</i>
Medzhid Bektemirov 'B-52'	<i>Dagestan, Russia</i>	13th WUFC 2007 -85kg CHAMPION (vs Divino Rui, Brazil)	Professional boxer 20-1 (12 KOs). HBO LHW 5 Dec 2015. WBA #10 / WBC #13. WBC USNBC champion. Trained by Ronnie Shields (Mayweather Jr./Holyfield). Born Makhachkala — same Soviet-Dagestani boxing ecosystem as Beterbiev (BoxRec, 2026).	HBO Boxing	<i>Trained by Ronnie Shields</i>
Andranik Ashugyan	<i>Armenia/Russia</i>	12th WUFC 2006 finalist; 13th WUFC 2007 - 60kg CHAMPION; 18th WUFC 2012 - 57kg CHAMPION; 21st WUFC 2015 - 61kg winner	Record 8-5. M-1 Global. 4× WUFC across 9 years (2006–2015). Multiple world champion. CASE ILLUSTRATION 1 (Study 4 qualitative data). His 9-year competitive arc exemplifies FLCPF longitudinal development pathway (Ericsson et al., 1993; Loio, 2026).	M-1/EFN	<i>CASE ILLUSTRATION 1 Interviewee</i>
Ludo Boulvin	<i>Belgium</i>	12th WUFC 2006 -73kg CHAMPION; 14th WUFC 2008 - 78kg finalist; 17th WUFC 2011 - 73kg CHAMPION	3× WUFC champion. ProFC. Transitioned to coaching/MMA institutional development in Belgium. FLCPF Pathway 3: accumulated competitive expertise converted into institutional capacity (Balyi & Hamilton, 2004; Polanyi, 1966).	Coach/Promoter	<i>Belgian MMA institutional development</i>
Ayub Gimbatov	<i>Dagestan, Russia</i>	18th WUFC 2012 -78.5kg CHAMPION (RNC 5:36 vs Pikhunyk)	Record 10-1-1 NC. Fight Nights Global, W.I.N. Fighting Championships. Makhachkala Dagestani circuit.	ACA/ProFC	<i>Fight Nights Global</i>
Miri Sadigov	<i>Russia (Omsk)</i>	22nd WUFC 2016 -72kg CHAMPION (KO punches 0:52)	Record 10-6-1. ACA MMA, MMA Series Russia. Storm gym, Omsk.	ACA/ProFC	<i>ACA / MMA Series Russia</i>
Dmitrii Zabolotnyi	<i>Russia (Kaliningrad)</i>	22nd WUFC 2016 +93kg CHAMPION (guillotine 0:22 vs Maksak)	Record 21-6. ACA, EFN, S-70 Russian circuit. Kaliningrad heavyweight.	ACA/ProFC	<i>ACA / EFN Russian circuit</i>

Athlete	Nat.	WUFC Record	Elite Career & Level	Promo	Coach/Team
Vardan Mnatsakanyan	<i>Armenia</i>	16th WUFC 2010 -63kg CHAMPION	WUFC -63kg champion 2010. Transitioned to coaching and administrative roles in Armenian combat sports. FLCPF Pathway 3 (Polanyi, 1966).	Institutional	<i>Armenian institutional development</i>
Razmik Ghulinyan	<i>Armenia</i>	23rd WUFC 2017 -66kg K-1 CHAMPION (vs Victor Marinho, Brazil)	Founder & director Ghulinyan Sports Management GFC — active MMA promotion Armenia, events 2026. Athlete-to-promoter/builder transition (Balyi & Hamilton, 2004). FLCPF Pathway 3.	Coach/Promoter	<i>Founded GFC Armenia</i>
Rafael Silva	<i>Portugal</i>	WUFC 2005–2016 multiple editions -83 to +93kg (Loio Team)	Record 40-18-0 (Sherdog ID 10865; Tapology verified). Professional fights documented in Ukraine (Professional Fight Union), Spain (multiple events), Czech Republic, Portugal, Brazil, Sweden. 61% submission rate. Loio Team throughout career, coaching by Fernando Loio. Founded his team. FLCPF Pathway 3: competitive excellence converted to institutional coaching capacity (Polanyi, 1966).	Coach/Promoter	<i>Loio Team (Fernando Loio). Then he founded his team</i>
Vitaliy Kalynyuk	<i>Ukraine → Portugal</i>	13th WUFC 2007 junior champion; 15th WUFC 2009 -74kg Junior finalist; 21st WUFC 2015 -77kg winner (RNC 0:54)	Record 7-8-0 (Tapology verified; Sherdog ID 29369). Professional fights in Sweden and Spain as professional. Loio Team (Portugal). 1st professional MMA opponent of Magomedkerimov (2× PFL World Champion) at WUFC 2008 (Sherdog, 2026; Tapology, 2026). Trained by Fernando Loio.	Regional	<i>Loio Team (Fernando Loio) 1st opponent of 2× PFL champion Magomedkerimov</i>
Stéphane Susperregui	<i>France</i>	13th WUFC 2007 K-1 -88kg CHAMPION (KO 0:33 vs Avakyan Artur, Armenia)	Professional kickboxer record 49-8-2. GLORY Kickboxing competitor (debut March 2013, London — vs Danyo Ilunga, It's Showtime -95kg champion). WKN World Oriental Rules Heavyweight Champion. WKA K-1 World Heavyweight Champion. Double WKN Kickboxing Grand Prix Champion. K-1 Event -95kg tournament champion (December 2021). Ranked #5 Light Heavyweight globally by Combat Press (September 2022). Recorded as WUFC and WKN champion across major combat sports databases (Tapology, 2026; GLORY Kickboxing, 2013). WUFC K-1 title 2007 was the launchpad for a sustained elite kickboxing career across GLORY, K-1 and WKN.	GLORY/K-1	<i>Iparralde Fight Club — GLORY / WKN / K-1</i>

Note. Russian/Dagestani athletes (Albazi, Valiev, Bibulatov, Sultan Aliev, Magomedkerimov, Bektemirov, Kalabekov, Gimbatov, Sadigov, Zabolotnyi, Ashugyan) account for the majority of Tier 1 and Tier 2 WUFC athletes, confirming RQ3. Professional debut documentation: Magomedkerimov vs Kalynyuk (WUFC 2008) and Valiev vs Raberg (WUFC 2010) from Sherdog (2026) and Tapology (2026).

Table 3. Descriptive Statistics: WUFC Athlete Career Outcomes by Nationality

Category	Sub-Category	n	% (of 22)
Distribution by Tier	Tier 1 — UFC/World title orbit	5 athletes	22.7%
	Tier 2 — Continental/regional elite	15 athletes	68.2%
	Tier 3 — Institutional/coaching transition	2 athletes	9.1%
Nationality (Tier 1 & 2)	Dagestan/Russia	11 athletes	55.0%
	Ukraine	2 athletes	10.0%
	Other (Armenia, Georgia, Belgium, Czech Rep., France, Portugal)	7 athletes	35.0%
WUFC Edition of Career Milestone	14th WUFC 2008	2 athletes (pro debuts: Magomedkerimov, Kalabekov)	—
	16th WUFC 2010	2 athletes (pro debut: Valiev; elite debut: Albazi)	—
	13th WUFC 2007	3 athletes (Bektemirov, Ashugyan 1st title, Susperregui K-1)	—
Promotional Outcome	UFC / PFL / Bellator / WSOF ecosystem	5 athletes	22.7%
	HBO / GLORY / M-1 / ACA / Cage Warriors	9 athletes	40.9%
	ProFC / EFN / GMC / regional elite circuit	6 athletes	27.3%
	Coaching / promotion / institution	2 athletes	9.1%

3.5 The Soviet–Russian Combat Sports Heritage: Cultural, Motivational and Technical Foundations of WUFC Dominance

3.5.1 Cultural and Motivational Foundations: Wrestling as National Identity

Stepkin's statement — 'in the Caucasus, wrestling is absorbed with mother's milk — it is national' (personal communication, 3 March 2026) — encapsulates the single most important structural factor differentiating Dagestani and Caucasian athletes from their international peers. In Dagestan specifically, freestyle wrestling functions not merely as a sport but as a cultural institution: the primary gateway discipline through which virtually all elite combat sports athletes first develop their competitive identity, self-concept, and motivational framework (Lenetsky & Harris, 2012). The wrestling hall is a community centre; competitive wrestling is children's play; the opponent is a daily training partner from age 5 or 6. This early cultural embedding produces a motivational infrastructure — intrinsic, identity-based, community-reinforced — that cannot be manufactured by external reward systems or formalised training incentives alone. It is precisely the motivational and disciplinary foundation that explains why Dagestani athletes arrive at WUFC events in a state of total competitive readiness: psychological commitment is not trained in the gym but formed in childhood, through the cultural weight of a tradition in which wrestling ability is a marker of personal honour, community respect, and national identity.

This cultural-motivational foundation directly produces the emotional-psychological readiness that the FLCPF identifies as a component of physiological integration (Loio, 2026): the ability to maintain competitive intensity, tactical clarity, and adaptive functional performance across the full duration of a fight, including under fatigue and adversity. The observation that Dagestani athletes at WUFC consistently maintained technical quality in the later stages of fights — when physiological fatigue

would normally compromise perception, decision-making, and movement precision (Franchini & Takito, 2014) — is directly explained by this motivational infrastructure. Emotional-psychological readiness is not a psychological variable independent of technical preparation: it is the product of a cultural system in which the integration of physical, technical, and mental preparation begins in early childhood and is continuously reinforced by community expectations across the athlete's competitive development.

3.5.2 Technical-Tactical Efficiency: Sambo, Wrestling and the Grappling Foundation

Sambo — SAMozashchita Bez Oruzhiya, 'self-defence without weapons' — was developed by the Soviet Red Army in the 1920s as a synthesis of judo, jujitsu, Greco-Roman wrestling, freestyle wrestling, and Caucasian jacket wrestling disciplines (Franchini et al., 2011; Buse, 2006). Declared the USSR's official national combat sport in 1938, it branched into Sport Sambo (grappling-only) and Combat Sambo, which integrates full striking — punches, kicks, elbows, knees — alongside grappling, constituting the closest historical antecedent to modern MMA rules (Buse, 2006) and the most direct precursor to the WUFC competitive format. Stepkin's confirmation that 'the core foundational technique is wrestling, sambo, judo, grappling' (personal communication, 3 March 2026) reflects the institutional reality: the Russian/Dagestani athlete arrives at pankration competition with a grappling vocabulary that is already at elite international standard, having been developed through cultural immersion from early childhood and refined through formal sambo and judo training from age 5–6. This produces what Ericsson et al. (1993) call the 'structural knowledge' of expert performance: not merely the ability to execute techniques but the automatic, context-sensitive recognition of which technique applies under which competitive conditions — the combat affordances dimension of the FLCPF (Loio, 2026; Hristovski et al., 2006).

3.5.3 The Soviet Boxing School and Striking Integration

From 1952 to 1988, the Soviet Union amassed 51 Olympic boxing medals including 14 gold across seven consecutive Olympic cycles. The structural features of Soviet boxing methodology — kinetic chain mechanics, pendulum footwork, the corkscrew/'casting' punch, and a pedagogy built around shadow boxing and drill repetition requiring 200–300 competitive bouts before international selection (Ericsson et al., 1993) — produced the technical automaticity that is the defining characteristic of expert striking performance. Stepkin's confirmation of the 50%/50% grappling-to-striking training ratio (personal communication, 3 March 2026) reflects the institutional integration of this boxing tradition within the broader pankration/MMA preparation framework. Loio et al. (2022b) validate these principles empirically in the WUFC context: boxing skills showed higher frequency and efficiency than kicking, knees or elbows during stand-up combat; winners showed significantly greater boxing skill use than losers; most KOs were caused by fist blows in combinations and counterattacks — a pattern consistent with research on fight-ending punches in elite MMA (Barley et al., 2025); and even in ground fighting, fist techniques (ground and pound) were superior to submission techniques. These findings directly explain the competitive pattern of Russian/Dagestani athletes at WUFC: superior boxing technique — the product of the Soviet school's systematic pedagogy — amplified by grappling

dominance derived from cultural wrestling immersion, producing a combination that the pankration ruleset uniquely allowed to be expressed in its full integrated form (Loio, 2026; Buse, 2006).

Wushu Sanda (Gao, 2010) and Muay Thai (Junlaphan, 2016) contributed complementary striking dimensions: Sanda's explosive throwing and low-kick vocabulary mapped naturally onto the wrestling takedown repertoire, while Muay Thai added elbow, knee and clinch. The trajectory of Timur Valiev — first professional MMA fight at WUFC 2010, subsequently UFC regular and PFL competitor — exemplifies this synthesis: Wushu Sanda at age 16, then kickboxing, Muay Thai, pankration (Bleacher Report, 2016), producing a multi-disciplinary striker whose FLCPF profile spans all seven dimensions (Loio, 2026). This trajectory directly instantiates Stepkin's institutional description: a 'universal fighter' combining 'wrestling, joint locks, chokes and striking technique' with 'preference given to foundational judo and sambo' (personal communication, 3 March 2026).

3.5.4 Physical Readiness and the FLCPF's Physiological Integration Dimension

The physical preparation of Russian and Dagestani athletes reflects the integration of explosive strength, reactive strength, anaerobic power and aerobic capacity identified by the FLCPF as the physiological infrastructure of elite combat performance (Loio, 2026; Franchini & Takito, 2014). Stepkin's confirmation of the developmental trajectory — gymnastics and acrobatics from age 5–6, formal combat sport specialisation from age 12, international competition readiness in 3–5 years (personal communication, 3 March 2026) — describes a long-term physical development pathway that systematically builds the neuromuscular foundation (Franchini et al., 2011) upon which technical-tactical performance depends. The FLCPF's physiological integration dimension (Loio, 2026) proposes that technical-tactical superiority remains effective only when supported by adequate physiological capacity — that fatigue is not merely a physical phenomenon but a constraint on perception, decision-making, and tactical functionality (Franchini & Takito, 2014). The systematic physical preparation described by Stepkin, beginning in early childhood and sustained across a decade of progressive competitive exposure, produces exactly the physiological resilience — the capacity to maintain adaptive functional performance across the full competitive duration — that differentiated Russian/Dagestani athletes from their WUFC opponents in the later stages of fights.

3.5.5 Global Persistence: From WUFC to UFC, PFL, Boxing World Championships

The WUFC athlete data (Table 2) demonstrate that the competitive dominance observed in Viseu, Lamego and Peso da Régua between 2005 and 2017 was not a product of favourable local conditions but a manifestation of a global competitive advantage that persists across all disciplines and all major international promotions. The same institutional ecosystem — cultural wrestling immersion, sambo/judo foundation, Soviet boxing methodology, 50%/50% training balance, individual technical automaticity — that produced WUFC dominance also produced: 2× PFL Welterweight World Champion Magomed Magomedkerimov (pro debut WUFC 2008); UFC Top 5 flyweight Amir Albazi; UFC/PFL competitor Timur Valiev (pro debut WUFC 2010); WSOF World Champion Magomed Bibulatov; UFC/Bellator competitor Sultan Aliev (trained under Abdulmanap Nurmagomedov,

Khabib's father); and professional boxer Medzhid Bektemirov 'B-52' (WUFC -85kg champion 2007, Makhachkala; 20-1, HBO, WBA #10/WBC #13, trained by Ronnie Shields).

The most iconic contemporary expression of this ecosystem is Khabib Abdulmanapovich Nurmagomedov (born 20 September 1988, Sildi village, Tsumadinsky District, Dagestan) — widely regarded as the greatest MMA fighter of all time. A two-time World Combat Sambo Champion (2009, 2010), Khabib began training wrestling at age 12 under his father Abdulmanap Nurmagomedov, added judo at 15 and combat sambo at 17 — precisely the developmental pathway Stepkin describes (personal communication, 3 March 2026): wrestling foundation, sambo structure, then full hybrid integration. He retired in October 2020 with a perfect professional record of 29-0, having gone 13-0 in the UFC (longest-reigning UFC Lightweight Champion, 2018–2021; 3 successful title defenses against McGregor, Poirier and Gaethje; inducted UFC Hall of Fame 2022; #1 pound-for-pound at retirement; Fight Matrix #1 Lightweight of All Time). His fighting style — relentless grappling pressure, chain wrestling, 5.32 takedowns per 15 minutes, suffocating top control, and precise ground and pound — is the technical expression of the FLCPF's technical-tactical versatility, anticipation, and adaptive transfer dimensions (Loio, 2026) simultaneously. His UFC debut occurred on 20 January 2012 — one year after the last WUFC editions in which Dagestani athletes competed systematically, and precisely the moment at which WUFC's 7-year pipeline of Dagestani competitive experience reached its first major UFC expression. Although Khabib himself did not participate at WUFC, his trajectory from Dagestani childhood wrestling to UFC dominance is the paradigmatic example of the same institutional ecosystem that the WUFC athlete data document and the FLCPF explains (Loio, 2026). The contemporary expression of this ecosystem at world championship level is provided by Artur Beterbiev (record 21-1, 91% KO rate — the highest ever at sustained world championship level in professional boxing; BoxRec, 2026; born Khasavyurt, Dagestan; undisputed WBC/IBF/WBO light heavyweight champion 2024; World Amateur Champion 2009; ESPN, 2025; BoxRec, 2026) and Dmitry Bivol (record 25-1, updated 30 May 2026; ranked #4 pound-for-pound, BoxRec, June 2026; Ring Magazine Fighter of the Year 2022 after defeating Canelo Álvarez; undisputed champion 2025; ESPN, 2025; BoxRec, 2026). Both represent the professional expression of the Soviet-Dagestani boxing school described in §3.5.3, demonstrating that the institutional ecosystem identified at WUFC level continues to produce world-class combat athletes across boxing as well as MMA and pankration. Fedor Emelianenko — PRIDE Heavyweight Champion 2003–2007, 4× FIAS World Combat Sambo Champion (2002 ×2, 2005, 2007; FIAS, 2012), MMA record 40-7 (TASS, 2026), named 'top MMA fighter of the decade' by Sports Illustrated (ESPN, 2009) — remains the historical archetype of this synthesis: sambo grappling for positional control, Soviet boxing ground and pound for finishing, producing a decade of unmatched dominance that directly reflects the FLCPF dimensions of adaptive transfer, technical-tactical versatility, and physiological integration operating in combination (Loio, 2026; Loio et al., 2022b).

4. Discussion

4.1 RQ1: Explaining Russian and Dagestani Dominance — A Multi-Factor Account

The evidence presented across §3.1–3.5 converges on a coherent multi-factor account of Russian and Dagestani dominance at WUFC that integrates motivational, cultural, disciplinary, technical-tactical, physical, and emotional-psychological dimensions. At the motivational-cultural level: the primary factor, as stated definitively by the President of the All-Russian Pankration Federation (Stepkin, personal communication, 3 March 2026), is the cultural embedding of wrestling as national identity — an intrinsic, community-reinforced motivational system that produces total competitive readiness at a level that cannot be replicated through purely instrumental training incentives. At the disciplinary level: the systematic developmental pathway described by Stepkin — physical preparation from age 5–6, formal competitive specialisation from 12, international standard in 3–5 years — produces a disciplinary depth and training volume (Ericsson et al., 1993) that generates technical automaticity across all combat phases simultaneously, not sequentially. At the technical-tactical level: the 50%/50% grappling-striking balance, the sambo/judo/wrestling foundation, and the Soviet boxing school collectively produce the technical-tactical versatility dimension of the FLCPF (Loio, 2026) — the capacity to perform multiple efficient actions across striking, grappling, and transition phases — at a standard that WUFC's observational data confirmed as the primary differentiator between winners and losers (Loio et al., 2020a, 2022b). At the physical level: the long-term systematic preparation beginning in early childhood produces the physiological integration (Loio, 2026; Franchini & Takito, 2014) that sustains technical-tactical performance under fatigue. At the emotional-psychological level: the cultural weight of competition in communities where wrestling is national identity produces a competitive readiness — the capacity to maintain intensity and clarity under maximal pressure — that is the product of cultural formation rather than psychological training.

4.2 RQ2: FLCPF Dimensional Mapping of the Soviet–Russian Tradition

The Soviet-Russian-Dagestani combat sports ecosystem directly produces all seven FLCPF dimensions (Loio, 2026): Cultural wrestling immersion (Stepkin: 'absorbed with mother's milk') → Representative Interaction and Combat Affordances. Early grappling foundation (wrestling/sambo/judo from age 5) → Technical-Tactical Versatility across all combat phases (Franchini et al., 2011). Automaticity of 2–3 core techniques (Stepkin interview) → Anticipation through proactive positioning (Loio et al., 2020b; Milazzo et al., 2016). Soviet boxing school + Sanda/Muay Thai integration → Contextual Adaptability across striking and grappling (Loio et al., 2022b; Gao, 2010). Movement of technical solutions from pankration to UFC/PFL/boxing → Adaptive Transfer (Loio, 2026). Long-term physical preparation from early childhood → Physiological Integration under competitive fatigue (Franchini & Takito, 2014). The perfect alignment between the FLCPF's dimensional structure and the empirically documented characteristics of the Soviet-Russian-Dagestani development system is not coincidental: the FLCPF was derived from observational analysis of 170 WUFC fights (Loio, 2021) in which this cohort was dominant. The framework is, in a fundamental sense, an analytical description of why this specific institutional ecosystem produces elite combat performance — which is precisely why it retains explanatory validity when applied to the same cohort's subsequent careers across all major international promotions.

4.3 RQ3: Global Elite Performance Across All Disciplines

The archival data in Table 2 confirm that the WUFC dominance pattern is replicated at elite international level across all combat sports disciplines. In MMA: Magomedkerimov (2× PFL World

Champion), Valiev (UFC/PFL), Bibulatov (WSOF World Champion→UFC), Sultan Aliev (UFC/Bellator), Albazi (UFC Top 5), Gimbatov (Fight Nights Global) — all from the Russian/Dagestani/Caucasian ecosystem observed at WUFC. In boxing: Bektemirov (HBO, 20-1, WBA #10/WBC #13, Dagestani), Beterbiev (undisputed WBC/IBF/WBO champion, 91% KO rate, Dagestani), Bivol (undisputed champion 2025, #4 P4P). In pankration: Kalabekov (2× WUFC champion, ProFC/ACA), Ashugyan (M-1 Global). In grappling/sambo: Fedor Emelianenko (4× FIAS World Combat Sambo Champion, PRIDE Heavyweight Champion). Beyond the WUFC athlete dataset, the broader Dagestani ecosystem has produced a generation of elite fighters that defines global combat sports in the 21st century. Most prominently, Khabib Nurmagomedov (29-0, UFC Lightweight Champion 2018–2021, UFC Hall of Fame 2022) — trained under his father Abdulmanap Nurmagomedov in the Dagestani wrestling tradition from age 12, adding judo and combat sambo before transitioning to MMA — is widely regarded as the greatest MMA fighter of all time and the paradigmatic expression of the same institutional ecosystem this study analyses. The same system has produced, among many others: Umar Nurmagomedov (UFC bantamweight contender, undefeated), Islam Makhachev (UFC Lightweight Champion since 2022, #1 pound-for-pound), Tagir Ulanbekov (UFC flyweight), Magomed Ankalaev (UFC light heavyweight contender) — all from Dagestan, all products of the same wrestling-sambo-striking developmental infrastructure described by Stepkin (personal communication, 3 March 2026) and documented in the WUFC athlete record. This cross-disciplinary, cross-promotional pattern confirms the FLCPF's adaptive transfer dimension (Loio, 2026) as the mechanism explaining why athletes from this ecosystem succeed not only in pankration but across all combat disciplines: the technical-tactical versatility and grappling-striking integration built within the Dagestani/Russian developmental system transfers effectively to any competitive environment that tests similar adaptive capacities — whether MMA, boxing, grappling, or pankration (Loio et al., 2022b; Buse, 2006; James et al., 2016).

5. Limitations

Four limitations require explicit acknowledgment. First, the qualitative strand comprises two case illustrations (N=2) rather than a full thematic analysis sample. While methodologically appropriate as case illustrations (Patton, 2002), this limits the generalisability of qualitative findings beyond the specific perspectives of Ashugyan and Stepkin. Future studies should extend qualitative data collection to a larger sample including Dagestani coaches and athletes actively competing at elite international level. Second, the archival tracking strand is descriptive rather than inferential: the frequencies and proportions in Table 3 characterise the WUFC athlete population but cannot establish causal relationships between WUFC participation and subsequent career outcomes. Third, the principal investigator's insider position, while enhancing ecological validity (Geertz, 1973), introduces perspective bias risk despite the reflexive measures in §2.4. Fourth, verification of career data for athletes competing primarily in post-Soviet regional circuits relied partly on sources that may not have been updated to June 2026.

6. Conclusions

This study has documented, through systematic archival tracking, two qualitative case illustrations, and peer-reviewed literature review, that the consistent and disproportionate dominance of Russian

and Dagestani athletes in WUFC competition (editions 18–30, 2005–2017) is explained by a coherent, multi-generational institutional ecosystem — not by individual talent or incidental competitive advantage. The convergence of cultural wrestling immersion (Stepkin: 'absorbed with mother's milk — it is national'), early multi-disciplinary technical foundation (wrestling, sambo, judo, grappling from age 5–6), systematic grappling-striking integration (50%/50% training balance), Soviet boxing school methodology, individual technical automaticity (2–3 core techniques worked to full automaticity), and long-term physical preparation constitutes precisely the conditions that the FLCPF (Loio, 2026) identifies as producing elite combat performance. The three research questions are answered: (RQ1) Russian and Dagestani dominance at WUFC results from the integration of cultural-motivational, disciplinary, technical-tactical, physical, and emotional-psychological factors that are mutually reinforcing and institutionally embedded across generations; (RQ2) the Soviet-Russian-Dagestani combat sports ecosystem directly produces all seven FLCPF dimensions in combination, confirming the framework's analytical validity; (RQ3) the same institutional ecosystem that produced WUFC dominance produces sustained global elite performance across all combat sports disciplines — MMA (UFC, PFL, Bellator), boxing (HBO, WBA, WBC, IBF, WBO world title level), and pankration/grappling — as documented across 22 verified WUFC athlete careers and confirmed by the world championship-level performances of Khabib Nurmagomedov (29-0, UFC Lightweight GOAT, Dagestan), Artur Beterbiev (undisputed WBC/IBF/WBO light heavyweight champion, Dagestan), Dmitry Bivol (undisputed champion 2025, #4 P4P), and the historical legacy of Fedor Emelianenko (PRIDE Heavyweight Champion, 4× World Combat Sambo Champion).

The FLCPF (Loio, 2026) is validated by this study not merely as an analytical framework for WUFC competition, but as a model for understanding how cultural-institutional ecosystems produce and sustain combat sports excellence across generations and disciplines. The integration of wrestling cultural identity, sambo/judo technical foundation, Soviet boxing methodology, balanced striking-grappling preparation, and individual technical automaticity — confirmed by the President of the All-Russian Pankration Federation and empirically evidenced by 170 WUFC observational fights and 22 verified WUFC athlete careers — constitutes the most complete available account of why Dagestan and Russia dominate global combat sports. Future research should extend this analysis to other international pankration platforms, increase the qualitative sample to include active Dagestani coaches and athletes, and pursue experimental validation of the FLCPF's predictive claims across intervention studies in combat sports training contexts (Loio, 2026; Ericsson et al., 1993; Renshaw et al., 2019).

Biographical Note

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He has more than 50 years of experience in martial arts and combat sports as an athlete, coach, event promoter, and sports official. Throughout his career, he has been associated with several national and international organizations linked to Boxing, Taekwondo, Ultimate Full Contact, Pankration, MMA, Free Fight, Kickboxing, Muay Thai, and Grappling.

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