

Exploring the Impact of Tattoos on Sports Performance

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Abstract—Tattoos are the most intimate form of body art. Unlike other art forms, tattoos emphasize breaking through tradition, innovation, and creativity. The designs created by tattoo artists are often regarded as true works of art. In recent years, there has been a notable increase in athletes with tattoos, thereby amplifying the beliefs and psychological expressions conveyed by tattoos on athletes compared to the past. The primary objectives of this study are 1) to explore and understand the presence and significance of tattoos for athletes and 2) to examine the impact of tattoos on athletes' performance. This study employs a semi-structured, in-depth interview method utilizing purposive sampling. The participants are athletes who have engaged in regular exercise for more than three years and have tattoos. A total of 10 athletes were interviewed, including nine males and one female, aged 24-43 years, each with different sports specializations. The sample was collected using snowball sampling. Results: 1) For athletes, tattoos are not merely body decorations but serve to reinforce their inner beliefs, thereby enhancing their athletic performance. 2) Tattoos have a positive impact on the appearance of athletes. 3) The influence of tattoos on athletic performance extends beyond physical appearance, serving as a psychological motivation and support. 4) Individuals with tattoos tend to be more outgoing and extroverted, with higher impulsivity and adventurousness in their athletic endeavors. Conclusion: 1) For athletes, tattoos not only have a positive impact on their appearance but also strengthen their internal beliefs. 2) Athletes with tattoos exhibit not only greater extroversion and openness but also heightened impulsivity and adventurousness in their athletic performance.

Keywords—Tattoo, athletes, athletic performance, psychological impact, body art.

I. INTRODUCTION

TATTOOS represent the most intimate form of art connected to the body. Tattoo art therapy may hold certain therapeutic effects, as tattoos can serve as tools for healing psychological wounds and exploring self-identity [1].

Tattoos were originally refined and developed by the Maori people of New Zealand. Through continuous evolution and creativity, tattoos became vibrant, intricate body adornments. This extraordinary and unique art form has been admired by many, regardless of nationality, race, or religion. It represents a part of humanity that should be cherished, respected, and preserved for future generations [2]. Unlike other forms of art, tattoos emphasize breaking through traditions, innovation, and creativity. In addition to mastering the tools and techniques necessary to etch them onto the skin, tattoo artists' designs are regarded as works of artistic creation [3]. Many people choose

tattoos to express their emotions and values, such as dissatisfaction with reality, addiction to pain, the desire to express inner emotions, showcasing personal life stories, or identifying with surrounding communities [4].

The patterns etched into a person's skin through tattoos symbolize the narrative of their life, marking their experiences and reflecting their social and cultural background [5]. While some choose tattoos for aesthetic or trend-driven reasons, others adopt designs imbued with deep social, cultural, or historical significance [6]. Scholars have suggested that tattoos allow individuals to create expressions of self through the ink on their skin. This enables others to understand their inner thoughts and self-worth. Tattoos' permanence reduces their connection to fleeting fashion trends, allowing stories and thoughts to be indelibly etched into the skin. In this way, personal stories, rituals, memories, and symbols can be preserved almost forever [7], [8].

In recent years, an increasing number of athletes have adorned their bodies with tattoos. Whether it enhances their personal performance or physical appearance, tattoos have made their external presentation more eye-catching and stylish. Athletes with tattoos stand out, differentiating themselves from others in competition through distinct visual recognition [9]. Many athletes bear numerous tattoos, each with unique meanings. Prominent athletes are often admired and emulated by others, as they serve as role models [9]. Tattoos on athletes convey strong beliefs and mental fortitude, much more powerfully than in the past. For example, athletes like retired English footballer David Beckham, former American wrestler Dwayne Johnson, Taiwanese national badminton player Tai Tzu-Ying, and British Olympic gold medalist swimmer Adam Peaty all have tattoos symbolizing their personal beliefs.

Tattoos are personal marks etched into the body, requiring not only courage but also an ability to transcend societal stereotypes surrounding tattoos. Tattoos positively affect the spiritual identity, group affiliation, and sense of belonging for those who have them [10]. Moreover, research suggests that there are performance differences between athletes with and without tattoos. Tattooed athletes exhibit more aggression, extroversion, risk-taking behavior, and dominance. They perform more proactively, are more willing to take risks, and pursue their goals with a rebellious spirit. These factors contribute to their more dynamic performance on the field [11].

With the rapid dissemination of mass media, athletes' tattoos

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are often magnified through media attention. As a result, the beliefs and mental states that tattoos reflect on athletes are more influential than ever before. Athletes are not merely showing their physical prowess in the competitive arena, but their overall persona is rendered more multidimensional through these visual cues. Tattoos enrich their personal image and amplify the mental and emotional messages they convey [12]. Thus, the influence of tattoos on athletes' beliefs and psychological states is more potent today than in the past.

The main purposes of this study are: (1) to explore the significance of tattoos for athletes and (2) to examine the impact of tattoos on athletes' performance.

II. RESEARCH METHODOLOGY

This study employed a semi-structured in-depth interview method, using purposive sampling. The participants were athletes who had been regularly engaged in sports for more than three years and had tattoos. A total of 10 individuals were interviewed, including nine males and one female, aged between 24 years and 43 years, each with different sports specializations. The sample was collected using snowball sampling.

Prior to commencing the study, participants were briefed on the interview outline and the tools to be utilized, which included audio recording and photographing of tattoo designs, as well as the subsequent transcription of recordings into verbatim scripts. After verifying that participants had no concerns, they were then asked to sign a consent form for the interview. The research tools included a voice recorder for recording the interviews, which were later transcribed verbatim. Photos of the participants' tattoos were also taken using a mobile phone. Both the transcripts and the photographs were carefully cross-checked to ensure the reliability of the study. To protect the privacy of the participants, all data were anonymized. The participants were given anonymous identifiers A, B, C, D, E, F, G, H, I, and J in the order of their interviews. The basic information of the participants was summarized in Table I.

TABLE I
 BASIC INFORMATION OF RESEARCH PARTICIPANTS

Identifier	Gender	Age	Years as Athlete	Sports Specialization	Current Occupation
A	Male	33	5	Dance (Breaking)	Web Designer
B	Male	32	7	Softball, Athletics, Dance	Construction
C	Male	35	12	Badminton, Soccer, Tug of War	Legal Affairs
D	Male	29	3	Fitness, Rugby	Hair Stylist
E	Female	31	4	Freediving, Mermaid Performance	Underwater Model
F	Male	31	9	Weight Training, Boxing	Fitness Coach
G	Male	24	7	Basketball	Ground Staff
H	Male	30	12	Scuba Diving	Diving Instructor
I	Male	43	20	Swimming	Educator
J	Male	30	8	Bodybuilding, Physique	Fitness Coach

III. RESEARCH RESULTS

A. Athletic Performance

The study by Porot and Mandelbaum thoroughly explored the concept of beliefs in relation to self-identity. Their empirical research presented substantial evidence, highlighting the fundamental role of beliefs in shaping and altering human behavior. The research emphasized the crucial importance of beliefs in understanding and predicting human actions [13]. The placebo effect, often referenced in clinical research, refers to the phenomenon in which an individual experiences symptom relief or improvement after receiving a treatment or intervention that lacks direct therapeutic efficacy for their condition. This effect is attributed to the patient's own beliefs or expectations regarding the treatment, resulting in psychological and sometimes physiological improvement. Such findings underscore the significance of belief systems on both mental and physical health outcomes [14]. Interviewees B, D, G, and H suggested that tattoos enable individuals to consciously imprint designs in their minds, serving as a psychological cue that can enhance their power and performance in the athletic field. Tattoos, therefore, become more than just body decoration; they act as psychological tools, continuously reinforcing inner beliefs and driving athletes to perform better [15], [16]. This psychological suggestion not only boosts athletes' confidence, focus, and motivation but also enhances their performance during competitions. Additionally, tattoo designs may carry symbolic meanings related to the athlete's personal values, goals, or beliefs, offering more psychological support and motivation, which ultimately strengthens their pursuit of success.

B. Aesthetic Expression

Athletes do not merely use tattoos for visual expression but imbue them with deeper meaning. This phenomenon is observed not only in professional athletes but also among student athletes, who often display tattoos in prominent areas of their bodies. Tattoos can increase one's attractiveness [17]. Athletes with tattoos tend to exhibit greater intensity and charisma in their performance on the sports field [18]. Interviewees D, E, and F mentioned that tattoos made them look more handsome or beautiful. They also noted that athletes need to assign meaning to their tattoos beyond simple visual display [16]. When athletes bear tattoos, it enriches the dynamic of the competition, elevating the aesthetic and artistic value of the event. Many athletes believe that tattoos make them more recognizable and help them attract more attention and admiration from others [18]. For athletes who are highly engaged in competitive sports, certain tattoos symbolize expressions of inner emotions and capabilities. These tattoos are often intended to embody a deliberate display of resilience and determination, adding a sense of intensity and vitality to their athletic performance. Furthermore, these tattoos amplify the impact of sport on their self-perception, imbuing their experiences with additional meaning, regardless of whether the symbols or images are directly related to their athletic pursuits. The designs often connect to personal history and past

experiences, deepening their significance [19]. This viewpoint was confirmed by interviewees B, D, E, and G.

C. The Impact of Tattoos on Athletic Performance

Upon analyzing the research data, it was found that the effects of tattoos on athletic performance could be divided into two dimensions: physiological and psychological. Most respondents reported that having a tattoo had minimal direct impact on their physiological athletic performance. This could be attributed, in part, to modern developments in tattoo hygiene and aftercare. The contemporary tattooing process places a strong emphasis on hygiene, as tattoo artists utilize disposable gloves, single-use needles, and equipment that undergo rigorous sterilization procedures. These protocols include disinfecting machines, light fixtures, and any surfaces that may come into contact with the client's blood, such as beds and paper towels, ensuring that the entire tattoo process is safe and reliable [20], [21].

According to interviewees A, D, and G, any physiological effects of tattoos on athletic performance are negligible if proper post-tattoo hygiene and basic care are maintained until the tattooed area is fully healed. Since tattooing creates an open wound, as long as adequate sanitation and care are followed, there is no impact on the athlete's physiological performance.

Regarding psychological effects, tattoos appear to have a notable impact on athletes' mental states and self-perception. Many respondents indicated that their tattoos enhanced their sense of personal identity, resilience, and motivation. The symbolic meaning of their tattoos often serves as a source of inner strength and focus, contributing to a heightened sense of confidence and determination in their athletic pursuits. In this way, tattoos function as a psychological anchor, reinforcing athletes' commitment to their goals and providing a lasting reminder of their perseverance and dedication. Interviewees C, E, and G stated that the primary influence of tattoos on their athletic performance is psychological. Interviewee C noted that tattoos create a strong presence on the field, exerting a form of invisible psychological pressure on competitors, thus intimidating them. Interviewee G said that tattoos serve as a mental pillar, reminding him to persevere in competitions whenever he looks at the tattoo on his arm. This psychological support provides sufficient motivation and boosts his confidence. Tattoos can give athletes psychological cues that encourage them to believe in their abilities beyond their limits [15]. The impact of tattoos on athletic performance goes beyond physical appearance, acting as a form of psychological encouragement and support. This is reflected in Taiwanese badminton player Tai Tzu-Ying's statement, "When I raise my left hand to cheer for myself, I feel empowered." Such motivation fills athletes with encouragement and confidence.

D. The Personality of Tattooed Athletes

Swami et al. pointed out that individuals with tattoos tend to be more cheerful, extroverted, and willing to take risks in areas like recreation, health, and safety. Their athletic arousal is also higher compared to non-tattooed individuals [22], [23]. Tattooed athletes are more extroverted and active [11], more

adventurous [11], [23], and have more cheerful and easy-going personalities [24]. Interviewees B, F, G, H, I, and J agreed that tattoos increase personal charisma and appeal, making them more likable. They also felt that others perceived them as friendly and approachable, which contrasts with earlier studies that associated tattooed individuals with violence or aggression. This indicates a shift in societal acceptance of tattooed individuals, aligning with the findings of [25] and [26]. For individuals with tattoos, tattooing is merely an external form of body modification. Although the number of people with tattoos has been on the rise in recent years, it will still take time to eliminate the existing stereotypes associated with tattoos.

IV. CONCLUSION AND RECOMMENDATIONS

This study found that tattoos have a positive impact on athletes in various aspects, including appearance, performance on the competitive field, and the expression of positive beliefs and internal self-recovery. This demonstrates that tattoos have a beneficial influence on both the external and internal qualities of individuals.

A. Study Results

1. *Athletic Performance*: The study revealed that nearly half of the tattooed athletes believe tattoos positively influence their performance by enhancing confidence, strengthening psychological support, and reinforcing positive mental beliefs. Tattoos were also associated with increased athletic arousal, openness, receptivity, friendliness, and careful decision-making.
2. *Aesthetic Expression*: For athletes, tattoos are not merely a form of visual display; they carry a deeper significance, symbolizing personal meaning beyond appearance.
3. *Impact on Athletic Performance*: The effect of tattoos on performance can be divided into physiological and psychological dimensions. Physiologically, tattoos appear to have minimal impact. Psychologically, however, tattoos seem to play a significant role in athletes' mental states and self-perception, serving as a source of inner strength and focus, which enhances their confidence and commitment in athletic pursuits.
4. *Perception of Tattoos as Body Modification*: For tattooed athletes, tattoos are generally viewed as an external form of body modification, a means of expressing individuality.

B. Study Limitations

This study focused on interviews with ten tattooed athletes in Taiwan, which represents a relatively small sample size and may not fully capture the diversity of perspectives. Variations in perceptions could arise from factors such as the athletes' specific sports, family backgrounds, and socio-cultural influences. Furthermore, cultural attitudes toward tattoos in Taiwan may differ significantly from those in other regions, which limits the generalizability of these findings to other populations or cultural contexts. The study's reliance on personal interviews also introduces the potential for recall bias, as participants' responses might be influenced by their subjective memories and experiences. Additionally, social

desirability bias may have played a role, as participants might have been inclined to respond in ways they felt were socially acceptable or aligned with positive perceptions of tattoos in sports. These factors suggest that findings should be interpreted with caution, as the results may reflect individual or culturally specific viewpoints rather than universal attitudes.

The following recommendations are made for future research:

1. *Increase Sample Size:* The respondents in this study were 10 athletes from different sports disciplines. Future research could expand the sample size and include more diverse sports disciplines to improve the accuracy of the findings.
2. *Conduct Longitudinal Studies:* It is recommended that future studies conduct longitudinal follow-ups to explore the psychological changes of athletes over different periods, allowing for the observation of the long-term effects of tattoos on athletes.
3. *Investigate the Psychological Impact of Tattooed Athletes During Competition Cycles:* Future research could focus on the psychological effects of the entire competition cycle on tattooed athletes, particularly their responses to anxiety and stress. Additionally, the study could explore whether tattooed athletes display positive psychological coping mechanisms when facing high-pressure situations.

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