

Beyond Physical Training: Psychosocial Development of Young Weightlifting Athletes in the SLOMPN-UNNES Program

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Abstract

The development of young athletes is increasingly recognized as a process that extends beyond physical performance and competitive achievement. This study explored the psychosocial development of young weightlifting athletes participating in the Sentra Latihan Olahragawan Muda Potensial Nasional (SLOMPN)-UNNES program. A qualitative descriptive design was employed involving five athletes who had continuously participated in the program for approximately two years. Data were collected through semi-structured interviews and analyzed using thematic analysis. The findings indicate that participation in the program contributed positively to athletes' personal, social, and psychological development. Athletes reported improvements in independence, discipline, social connectedness, confidence, emotional regulation, and resilience through their experiences within the program. Family support, coach-athlete relationships, peer solidarity, and structured mental preparation emerged as important contributors to psychosocial growth. These findings demonstrate that athlete development extends beyond physical training and that structured training environments can play an important role in fostering psychosocial growth among young athletes. In conclusion, youth athlete development programs should integrate psychosocial support alongside physical and technical preparation to promote holistic athlete development.

Keywords: athlete development; psychosocial development; psychological readiness; social support; weightlifting

1. Introduction

The development of young athletes is increasingly viewed as a process that extends beyond physical performance and competitive achievement (Bergeron et al., 2024). Contemporary athlete development frameworks emphasize that sporting environments play an important role in shaping personal, social, and psychological growth alongside technical and physical preparation (Sullivan et al., 2022). During adolescence, athletes experience critical developmental transitions that involve the formation of identity, independence, emotional regulation, and interpersonal competence (Blake & Solberg, 2023). Consequently, athlete development is no longer understood solely as the improvement of sport-specific abilities, but also as a process of preparing young people to manage the broader demands of both sport and everyday life (Henriksen & Stambulova, 2023).

Sport has been widely recognized as a context for Positive Youth Development, providing opportunities for young people to acquire life skills such as discipline, responsibility, self-control, leadership, and resilience (Pierce et al., 2022). However, the developmental outcomes of sport do not emerge automatically. They are strongly influenced by the quality of the environment in which athletes train, interact, and grow (Jiahao & Jing, 2024; Thompson et al., 2022). Training settings characterized by supportive relationships, meaningful social interactions, and structured

developmental experiences are more likely to foster positive psychosocial outcomes among young athletes (Lara-Bercial & McKenna, 2022).

This issue becomes particularly relevant within intensive athlete development programs where adolescents are required to adapt to demanding training schedules, increased performance expectations, and new social environments (Moeskops et al., 2022; Pierce et al., 2022). Many young athletes spend substantial periods away from their families while living and training in structured sport systems (Robinson et al., 2022). Such conditions expose them to challenges that require self-regulation, emotional adaptation, social adjustment, and psychological resilience. As a result, athlete development environments become important sites for psychosocial growth, influencing not only sporting performance but also personal development during a formative stage of life (Lara-Bercial & McKenna, 2022; Lara-Bercial & McKenna, 2022).

Despite growing scholarly interest in athlete development, existing research continues to focus predominantly on physical performance, physiological adaptation, and competitive achievement (Saadati, 2023). Studies that address psychological aspects of sport frequently examine isolated constructs such as motivation, confidence, anxiety, or mental toughness (Demir et al., 2025; Roshaan et al., 2026). Comparatively less attention has been directed toward understanding how intensive training environments shape psychosocial development in a holistic manner (Satarkar, 2026). In particular, limited evidence is available regarding how structured athlete development programs contribute to the formation of intrapersonal capacities, social connectedness, and mental maturity among adolescent athletes (Bengtsson et al., 2024; Söker et al., 2025). This gap is important because these dimensions represent essential foundations for both athletic success and long-term personal development (Söker et al., 2025).

The Indonesian context provides an important setting for examining this issue. Through the implementation of the Desain Besar Olahraga Nasional (DBON) and Law No. 11 of 2022 concerning Sports, athlete development has become a strategic national priority. One of the initiatives established to support this agenda is the Sentra Latihan Olahragawan Muda Potensial Nasional (SLOMPN), a national athlete development program designed to prepare talented young athletes through intensive and systematic training (Abbad & Kusuma, 2023; Sanjaya et al., 2025). Beyond serving as a pathway for sporting achievement, SLOMPN creates a unique developmental environment where athletes live, train, study, and interact within a structured community on a daily basis (Dirgantara et al., 2024).

Previous studies on youth athlete development have predominantly focused on performance outcomes, motivation, psychological skills, or specific psychosocial characteristics in isolation (Gao et al., 2023; Verdejo et al., 2024). While these studies provide valuable insights, limited attention has been given to how structured athlete development environments contribute to broader psychosocial development through athletes' lived experiences. Furthermore, evidence from national athlete development programs in the Indonesian context remains scarce. As a result, the psychosocial processes through which young athletes develop independence, social connectedness, and psychological readiness within intensive training environments are not yet fully understood.

The psychosocial implications of such an environment remain relatively underexplored. Athletes participating in SLOMPN are continuously exposed to experiences that demand adaptation, independence, discipline, social adjustment, and emotional management (Kusmiyati et al., 2023;

Rahayu et al., 2023). These experiences may contribute to important developmental outcomes that extend beyond athletic performance. Understanding these processes is therefore necessary to provide a more comprehensive perspective on the role of athlete development programs and to identify how structured training environments contribute to the formation of well-rounded young athletes.

To address this gap, this study explores the psychosocial development of young weightlifting athletes participating in the SLOMPN-UNNES program. Unlike studies that primarily focus on performance outcomes or individual psychological attributes, this research examines how a long-term and intensive athlete development environment contributes to the development of intrapersonal capacities, social connectedness, and mental maturity. By focusing on athletes who have continuously participated in the program and experienced its developmental processes over an extended period, this study offers insights into the broader role of national athlete development programs in shaping psychosocial growth among adolescent athletes. The findings are expected to contribute to the understanding of athlete development beyond physical training and provide practical implications for the design of holistic youth sport programs.

2. Method

This study employed a qualitative descriptive design to explore the psychosocial development of young weightlifting athletes participating in the SLOMPN-UNNES program. A qualitative approach was considered appropriate because it enabled an in-depth understanding (Dzogovic & Bajrami, 2023), of athletes' experiences, perceptions, and developmental processes within an intensive training environment.

Participants were selected using purposive sampling. The study involved all weightlifting athletes who were actively enrolled in the SLOMPN-UNNES program and had continuously participated in the program for approximately two years. These athletes were selected because they had extensive experience within the training environment and had been exposed to its athletic, educational, and residential components over an extended period. In addition to regular training activities, participants lived within a structured residential environment that facilitated continuous interaction with coaches and fellow athletes. In total, five athletes participated in the study.

Table 1. Participant characteristics

Participant	Gender	Age (Years)	Participation in SLOMPN
P1	Male	15	± 2 years
P2	Male	15	± 2 years
P3	Male	16	± 2 years
P4	Female	15	± 2 years
P5	Female	16	± 2 years

Data were collected through semi-structured interviews conducted individually with each participant. The interview guide was informed by literature related to intrapersonal development, social connectedness, and mental maturity, which later informed the thematic analysis process. The semi-structured format allowed participants to describe their experiences openly while enabling the researchers to explore emerging issues relevant to the study objectives. Interviews

were audio-recorded with participant consent and subsequently transcribed verbatim to ensure the accuracy of the data.

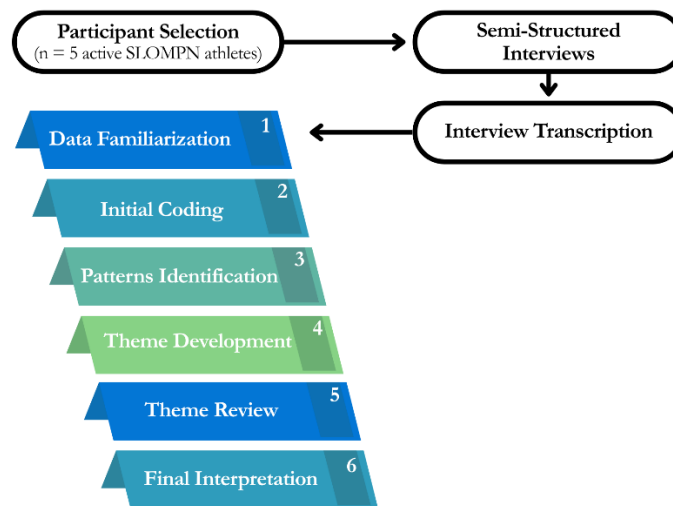


Figure 1. Research flowchart

The data were analyzed using thematic analysis following the framework proposed by (Kiger & Varpio, 2020). The analysis involved familiarization with the data, initial coding, identification of patterns, theme development, theme review, and interpretation of findings. Codes and themes were organized around the three dimensions of psychosocial development investigated in this study. This approach enabled the researchers to identify recurring experiences and meanings shared by the athletes while maintaining sensitivity to individual perspectives.

To ensure ethical research practices, participants were informed about the purpose of the study, the voluntary nature of their involvement, and their right to withdraw at any stage of the research process. Confidentiality and anonymity were maintained throughout the study by replacing participants' identities with codes during data analysis and reporting.

3. Result

Thematic analysis of the interview data generated three interrelated themes describing the psychosocial development of young weightlifting athletes within the SLOMPN-UNNES program. The findings indicate that psychosocial growth emerged through athletes' experiences in adapting to a structured training environment, building supportive social relationships, and developing psychological readiness for both sporting and everyday challenges. These themes reflect how participation in a long-term and intensive athlete development environment contributed to the formation of personal, social, and psychological competencies among the athletes.

Table 2. Themes generated from thematic analysis

Theme	Subtheme
Adaptation to a Structured Training Environment	Environmental adaptation; Independence and discipline
Building a Supportive Social Network	Family support; Coach-athlete relationships; Peer solidarity

Developing Psychological Readiness

Confidence development; Coping strategies;
Mental preparation

The three themes were closely connected and collectively illustrate the athletes' developmental experiences throughout their participation in the program. The first theme highlights how athletes adapted to the demands of a structured residential training environment and gradually developed greater independence and self-discipline. The second theme emphasizes the importance of social support provided by family members, coaches, and fellow athletes in facilitating adjustment and well-being. The third theme demonstrates how continuous exposure to training and competition contributed to the development of confidence, coping abilities, and psychological readiness. Together, these themes provide a comprehensive understanding of psychosocial development within the SLOMPN-UNNES environment.

A. Adaptation to a Structured Training Environment

The first theme highlights how participation in the SLOMPN-UNNES program required athletes to adapt to a highly structured training environment. For athletes entering the SLOMPN-UNNES program, participation represented a major transition from their previous daily lives. Although the most detailed reflections regarding adaptation were provided by one participant, similar experiences were reflected in the accounts of other athletes throughout the interviews. Beyond the physical demands of training, athletes were required to adjust to a new living environment, different routines, increased responsibilities, and greater expectations regarding their behavior and performance (Bengtsson et al., 2024; Thompson et al., 2022). These experiences became important catalysts for psychosocial development, particularly in fostering independence, self-regulation, and discipline (Pierce et al., 2022; Söker et al., 2025).

One of the earliest challenges experienced by the athletes was adapting to unfamiliar environmental conditions. Several participants described the transition as demanding, particularly during the initial stages of participation. P1 explained that adapting to the new surroundings was not always easy:

"Cuaca juga beda, itu yang paling beda, paling susah adaptasinya. Tapi kalau sama lingkungan adaptasinya cepat."

("The weather was very different; that was the hardest part to adapt to. But with the environment, I adapted quickly.")

The interview data suggest that adaptation extended beyond physical adjustment and involved psychological accommodation to a new lifestyle shared by athletes living within the residential training environment. Living away from home, interacting with new people, and adjusting to a structured daily routine required athletes to develop resilience and flexibility in responding to unfamiliar situations (Deocades et al., 2023).

As athletes became more familiar with the training environment, they also reported significant growth in personal independence. Living within the residential training system encouraged them to take greater responsibility for their daily needs and decisions (Nuraliah et al., 2025). P1 described how his experience in the program differed from life at home:

"Mandirinya beda. Kalau di rumah kan dimanjain sama ibu. Di sini harus latihan dulu, nanti kalau ada waktunya baru bisa beli, harus nabung juga."

("Independence here is different. At home, my mother spoiled me. Here I must train first, then if there is time, I can buy things. I also have to save money.")

The development of independence was also reflected in the athletes' ability to manage personal resources and daily routines (Morais et al., 2023). Several participants acknowledged that they gradually learned to become more responsible and self-sufficient after entering the program. Experiences that initially appeared unrelated to sport, such as managing personal finances, became important learning opportunities within the residential environment. P1 recalled:

"Dulu awal ke sini dikasih uang saku satu setengah juta. Ternyata tiga hari udah ludes. Pelatih bilang, 'nggak bisa ini kalau kayak gini.'"
(*"When I first came here, I received IDR 1.5 million as an allowance. It was gone within three days. The coach said, 'It cannot be like this.'"*)

Another important aspect of adaptation was the development of discipline. Athletes consistently described the program as requiring greater commitment and responsibility than they had previously experienced. The structured nature of the training schedule encouraged the establishment of new habits and routines. According to P1:

"Di rumah jarang disiplin. Kalau di sini harus disiplin, pagi-pagi udah siap-siap."
(*"At home I was rarely disciplined. Here I have to be disciplined, waking up early and being ready."*)

These findings suggest that the transition into the SLOMPN-UNNES environment functioned as an important developmental experience for young athletes. The residential and highly structured nature of the program encouraged the development of independence, self-management, responsibility, and discipline through everyday routines and experiences.

B. Building a Supportive Social Network

The second theme highlights the important role of social relationships in supporting athletes' psychosocial development throughout their participation in the SLOMPN-UNNES program. Although athletes lived away from their families and were required to adapt to a new environment, they consistently described receiving support from parents, coaches, and fellow athletes. These relationships provided emotional encouragement, motivation, guidance, and a sense of belonging that helped athletes navigate both sporting and personal challenges.

Family Support Across Distance

Despite living far from home, participants reported maintaining regular communication with their families through phone calls and video calls (Kacane, 2023). These interactions served as an important source of emotional support and motivation. Athletes frequently described their parents as actively monitoring their well-being, training experiences, and daily activities while continuously encouraging them to pursue their athletic goals. P1 explained:

"Kadang setiap hari bisa juga si mas, atau mungkin dua hari sekali. Kalau kita nyantai terus ortu nyantai ya kita telpon gitu mas."
(*"Sometimes every day, or once every two days. If both of us are free, we call each other."*)

Similarly, P5 described how communication with her family remained a daily routine:

"Via videocall mas, ngobrolin keseharian gitu mas. Ditanyain latihannya, kesehatan gitu. Terus juga disemangatin gitu."
(*"Through video calls. We talk about daily activities, training, health, and they always encourage me."*)

Coaches as Mentors and Parental Figures

Beyond their technical responsibilities, coaches played a significant role in the athletes' daily lives (Burns et al., 2024; Kramers et al., 2023). Participants frequently described their coaches as trusted individuals who provided guidance, encouragement, and emotional support. The coach–athlete relationship extended beyond training sessions and often included personal conversations, mentoring, and problem-solving. P1 described his relationship with the coach as becoming increasingly close over time:

"Mulai adaptasi dan udah mulai cerita-cerita, sharing gitu mas. Sering ngobrol gitu lah."
(*"After adapting, I started sharing stories and talking more often with the coach."*)

When asked how he viewed his coach, P1 further explained:

"Ngerasanya kayak punya kakak gitu."
(*"It feels like having an older sibling."*)

A similar perspective was expressed by P4:

"Kayak orang tua juga sih mas."
(*"It feels like having a parent as well."*)

Peer Solidarity and Shared Development

Relationships among fellow athletes represented another important source of support within the SLOMPN environment. Participants consistently described a culture of cooperation, mutual encouragement, and shared responsibility despite training within a competitive sporting context. P1 explained that athletes regularly supported one another during challenging situations:

"Kadang kalau ada yang lagi cedera kita bantu buat PNF gitu, biar cepat recovery. Kadang juga kita kasih motivasi juga."
(*"When someone is injured, we help with recovery exercises and also provide encouragement."*)

Similar experiences were described by P3:

"Pernah ya membantu yang cedera atau yang lagi nggak semangat, kami ajak ngobrol terus kami beri semangat bareng gitu"
(*"When someone is injured or lacks motivation, we talk with them and encourage them together"*).

Although athletes acknowledged the existence of competition during training, they generally viewed their relationships as collaborative rather than conflictual (Jan et al., 2026). Several participants reported rarely experiencing interpersonal conflict and instead emphasized mutual respect, shared experiences, and collective development. These findings suggest that peer relationships within the SLOMPN-UNNES environment functioned not only as a source of companionship but also as an important mechanism for emotional support, motivation, and psychosocial growth.

Psychosocial development within the SLOMPN-UNNES program was supported by a strong network of relationships involving family members, coaches, and fellow athletes, which fostered motivation, emotional security, and personal development..

C. Developing Psychological Readiness

The third theme describes how participation in the SLOMPN-UNNES program contributed to the development of psychological readiness among young athletes. Participants consistently emphasized the importance of mental strength in supporting performance and coping with the demands of training and competition (Patil & Singh, 2024). Their experiences suggest that psychological readiness developed through increased confidence, exposure to competitive experiences, effective coping strategies, and structured mental preparation provided within the training environment.

Growing Confidence Through Competitive Experience

One of the most frequently reported changes among the athletes was increased self-confidence. Several participants reflected on how repeated exposure to training and competition helped them become more comfortable performing under pressure and more confident in their abilities (Thompson et al., 2022). P1 explained:

*"Dulu mentalku kurang. Kurang pede. Kalau sekarang udah biasa."
("My mentality used to be weak. I lacked confidence. Now I am more accustomed to it.")*

For other athletes, confidence developed through frequent participation in competitions and exposure to new experiences. P3 stated:

*"Kayak sekarang jauh lebih pede karena sering ikut pertandingan."
("Now I am much more confident because I often participate in competitions.")*

These experiences suggest that confidence was not developed instantly but emerged gradually through continuous participation in training and competitive environments. Exposure to new challenges allowed athletes to become more familiar with pressure situations and strengthened their belief in their own capabilities.

Coping Strategies and Emotional Regulation

Participants also described various strategies used to cope with challenges, setbacks, and periods of reduced motivation. Several athletes reported experiencing moments when their progress appeared stagnant or when they felt frustrated with their performance. However, they developed different ways of managing these situations and regaining motivation. P5 emphasized the importance of self-motivation:

*"Motivasi diri sendiri bilang jangan mau kalah dari teman-teman yang lain."
("I motivate myself by telling myself not to fall behind my teammates.")*

Athletes also described emotional coping strategies used during difficult periods. P4 explained:

*"Kalau lagi capek sih paling dikamar dengerin musik, sholat, terus biar plong nangis."
("When I feel overwhelmed, I usually stay in my room, listen to music, pray, and sometimes cry to feel relieved.")*

These findings indicate that psychological readiness involved not only confidence but also the ability to regulate emotions and maintain motivation during challenging situations (Pierce et al., 2022; Sullivan et al., 2022).

Mental Preparation Through Imagery and Support Systems

The athletes further described how mental preparation was intentionally developed within the SLOMPN environment. One strategy frequently mentioned was imagery training, where athletes were encouraged to imagine themselves performing successfully in competition settings. P1 explained:

*"Pelatih sering bilang waktu latihan buat ngebayangin kalau lagi tanding."
("The coach often asks us during training to imagine that we are competing.")*

Participants also consistently emphasized the importance of mental health in athletic performance. Although opinions differed regarding whether mental or physical health was more important, all athletes agreed that psychological well-being was a critical component of success. P4 explained:

*"Kesehatan mental sih, soalnya dibanding kesehatan fisik kesehatan mental agak susah dibantu."
("Mental health is more important because it is more difficult to improve than physical health.")*

These findings suggest that psychological readiness was shaped through competitive experiences, coping strategies, and structured mental preparation, contributing to greater confidence, emotional regulation, and resilience among the athletes (Demir et al., 2025; Moeskops et al., 2022).

4. Discussion

The findings of this study demonstrate that psychosocial development among young weightlifting athletes extended beyond sport-specific training and emerged through their experiences within the SLOMPN-UNNES environment. The three themes identified in this study indicate that psychosocial growth was shaped by environmental adaptation, supportive social relationships, and psychological preparation. These findings reinforce the view that athlete development involves not only physical and technical improvement but also personal, social, and psychological growth throughout adolescence.

SLOMPN as a Developmental Environment

The first theme highlights the importance of the training environment as a context for psychosocial development. Athletes described adapting to structured routines, managing personal responsibilities, and developing greater self-discipline while living away from home. These experiences suggest that the SLOMPN-UNNES program functioned not only as a pathway for athletic achievement but also as a developmental environment that fostered independence, responsibility, and self-regulation. This finding supports previous research emphasizing the role of athlete development environments in shaping life skills and personal growth among young athletes (Henriksen & Stambulova, 2023; Yi et al., 2024). These findings suggest that psychosocial development emerges not only through formal coaching processes but also through athletes' daily interactions with the demands of a structured training environment. Living away from home, managing responsibilities, and adapting to routine may serve as important developmental experiences that contribute to broader life skills beyond sport participation.

Social Relationships as Developmental Resources

The second theme demonstrates that psychosocial development was strongly supported by social relationships. Despite living far from their families, athletes maintained regular communication

with parents while also receiving support from coaches and fellow athletes (Yukio et al., 2023). Coaches were frequently viewed as mentors and parental figures, whereas peer relationships were characterized by cooperation and mutual encouragement (Mccann et al., 2022; Ntalachani et al., 2025). These findings suggest that psychosocial development occurred within a network of social resources that facilitated adaptation, resilience, and personal growth throughout the athletes' participation in the program. The findings further highlight that social support within athlete development programs extends beyond performance enhancement. Supportive relationships with coaches, peers, and family members may also provide emotional stability and a sense of belonging, which are important during adolescence and periods of intensive athletic development.

Beyond Performance: Building Psychological Readiness

The third theme indicates that participation in the SLOMPN-UNNES program contributed to the development of psychological readiness through increased confidence, emotional regulation, and mental preparation. Athletes reported becoming more confident through competitive experiences while also developing strategies to cope with challenges and maintain motivation. The use of imagery and other mental preparation techniques further supported readiness for competition and reduced uncertainty (Patil & Singh, 2024). These findings highlight the importance of integrating psychological development alongside physical and technical training, reinforcing the view that athlete development programs should support both sporting performance and broader personal development. The results also reinforce the growing recognition that psychological preparation should be integrated alongside physical and technical training. Developing confidence, emotional regulation, and coping skills may help young athletes respond more effectively to both sporting challenges and broader developmental demands.

5. Conclusion and Recommendation

This study demonstrates that psychosocial development among young weightlifting athletes in the SLOMPN-UNNES program extended beyond physical training and emerged through their experiences within a structured athlete development environment. The findings indicate that participation in the program contributed to the development of independence, self-discipline, social connectedness, confidence, and psychological readiness through continuous engagement with training demands, supportive relationships, and competitive experiences. These results highlight the importance of viewing athlete development programs not only as pathways for improving sporting performance but also as environments that foster personal, social, and psychological growth during adolescence. The study contributes to the growing understanding of athlete development by emphasizing the role of training environments in shaping psychosocial outcomes among young athletes. Therefore, sport development programs should integrate psychosocial support, positive coach–athlete relationships, and opportunities for psychological skill development alongside physical and technical training. Future research may further explore psychosocial development across different sports and athlete development settings to provide a broader understanding of how structured sport environments contribute to long-term athlete and personal development.

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