

Field Study: How Are Vulnerable Children in China Developing Through Sport-Based Social Projects?

Zichen Zhuang ¹ , Xi Yang ² , Xiaolong Chen ¹ , and Hongjiang Wang ¹ 

¹ College of Physical Education, Hangzhou Normal University, China

² School of Physical Education and Equestrian, Wuhan Business University, China

Correspondence: Hongjiang Wang (20210165@hznu.edu.cn)

Submitted: 5 October 2024 **Accepted:** 2 April 2025 **Published:** 29 May 2025

Issue: This article is part of the issue “Impact Evaluation of Community Sport Programmes and ‘Sport Social Work Practices’” edited by Kirsten Verkooijen (Wageningen University & Research) and Pascal Delheye (Ghent University), fully open access at <https://doi.org/10.17645/si.i416>

Abstract

According to a UNICEF report, there are 65.17 million children living in poverty-stricken areas of China, accounting for 21.9% of the national child population. Authorities focus on economic aid and basic safety protection for vulnerable children but lack support in psychological, emotional, and social areas. While international scholars have recognized sports-based social projects (SBSPs) as an effective tool for promoting child development, there is limited research on the role of SBSPs in advancing vulnerable children’s development in China. To provide empirical data on the outcomes of SBSPs in China and discuss their mechanisms and conditions, the author conducted a field study of a project called “Angel” in the suburbs of Beijing. Through 101 hours of observation and 17 hours of in-depth interviews, the thematic analysis revealed five core themes: initial backgrounds, developmental challenges, collective life, sport activities, and growth. The study found that these children, with backgrounds of poor education, isolation, and poverty, exhibited Developmental Challenges such as weak social skills, cognitive limitations, and low psychological capital. However, through collective life, social interactions, educational management, independent living experiences, and sports opportunities, they showed improvements in responsibility, social skills, and optimism. The study also explored the fulfillment of basic psychological needs in sports and collective life, offering theoretical support for the role of SBSPs in promoting child development.

Keywords

basic psychological needs; child development; sport-based social projects; thematic analysis; vulnerable children

1. Introduction

Although China has not reported the exact number of vulnerable children over the past five years, the 2020 *China Child Population Status: Facts and Data* (The National Bureau of Statistics of China et al., 2021), based on the most recent national census, shows 65.17 million children in formerly impoverished areas, representing 21.9% of the national child population. Among them, 57.8 % live in rural areas with concerning survival and development conditions. These children suffer multidimensional deprivation—poorer health, schooling, and living conditions than their peers. Early marriage and early childbirth among adolescents are also relatively common. The authorities define vulnerable children as those facing difficulties in daily life, medical care, education, and more due to family poverty, those who face difficulties in rehabilitation, care, and social integration due to disabilities, and children whose personal safety is threatened or violated due to abuse, neglect, accidental injury, or illegal harm resulting from the absence or improper custody of guardians (The State Council of China, 2016). These children show significant vulnerabilities in terms of risk resistance, asset endowment, and social adaptation (X. Chen, 2023). They face higher psychological risks, and the accumulation of multiple adversities increases the likelihood of depression and suicidal thoughts (Wang et al., 2024). The authorities provide economic assistance and safety net protection for vulnerable children but lack developmental support, especially programs focusing on emotional support, social interaction, and other aspects, which fail to meet the deep and multifaceted needs of these children (Xie, 2023).

To address this issue, international scholars have pointed out that sports can significantly promote the welfare and mental health of vulnerable children (Bruner et al., 2023; Holt, 2008). In China, social forces, as pioneers in aiding vulnerable children, have already realized the urgency of addressing the multifaceted developmental needs of vulnerable children (F. Liu & Yu, 2015). Although there are some Sports-Based Projects already exist in China, they lack detailed academic exploration regarding their role in promoting the development of vulnerable children. International literature on child development involves a wide range of areas, including self-confidence, prosocial behavior, self-esteem, self-discipline, and more (Coakley, 2011; Coalter, 2013). Therefore, this study will conduct a field study of sports-based projects to explore the experiences of vulnerable children and clarify which specific aspects of personal development are created for them by sports-based social projects (SBSPs) in China. Additionally, over the past decade, more and more scholars have called for an examination of the mechanisms behind project outcomes (Coalter, 2015). This study will also delve into the positive conditions brought about by Sports-Based Projects for the development of vulnerable children in China, along with factors that may influence these outcomes, such as the children's backgrounds, coaches, and social culture.

2. Literature Review

2.1. Vulnerable Children

Internationally, according to UNICEF (2016) data, vulnerable children are defined as those who lack the necessary support systems to ensure their well-being and development. This broad definition often emphasizes child protection, healthcare, and survival. They face higher risks of physical, emotional, and sexual abuse (Gilbert et al., 2009). Malnutrition, chronic illness, and mental health issues are also common due to poor healthcare and stress (WHO, 2017). Children in poverty often lack food, shelter, and medical care (UNICEF, 2016).

In China, the responsibility for child protection was previously dispersed among various government departments, such as civil affairs, women's federations, and public security, leading to fragmented systems, inconsistent definitions, and difficulty in distributing work outcomes (Xu, 2021). However, in 2019, the State Council approved the establishment of the Ministry of Civil Affairs' Children's Welfare Department, which reduced such criticisms (X. Chen, 2023), and China has eased vulnerable children's basic survival issues through economic assistance and healthcare as emphasized in its poverty combat over the past decade. (Xie, 2023).

Compared to issues faced by children in other countries—such as street gangs (Loeffelholz et al., 2012), armed conflict (Kashfi et al., 2020), or drug trafficking (Charles, 2024)—China is particularly notable for its large population of left-behind children caused by massive rural-to-urban migration under the urban-rural dual structure and the inadequacies of the social security system (Fan et al., 2015). Within the vulnerable children population, there are a significant number of ethnic minority groups distinct from the Han Chinese. For example, in Liangshan Yi Autonomous Prefecture, one of China's largest ethnic autonomous regions, over four million people, more than 50% of the population, are Yi (Sichuan Provincial Statistics Bureau, 2022). The region is mountainous, with poor transportation and relative isolation from the outside world, and its economy is weak. It has also developed unique social and cultural dynamics and developmental challenges (Ming & Wang, 2019), such as potential language barriers. In Liangshan, the first language children learn is Yi (Bi et al., 2024). According to a 2020 survey by Chinese scholar Shi (2021) in multiple counties, 48.2% of locals use Mandarin, while 77.0% speak their ethnic language. Although the Chinese government promotes Mandarin as the official language and encourages its widespread use (Adamson & Feng, 2022), there is a lack of adaptation to local cultural characteristics and rigid teaching methods, leading to many students feeling apprehensive and unmotivated to learn Mandarin (Ma, 2017). The lack of mainstream communication skills and environments makes it difficult for these children to integrate into society in the future. Another factor is the influence of marriage customs. Chinese scholars (J. Chen & Pan, 2023) have pointed out that rural women often lack control over their destiny under the bride price culture. In the past, arranged marriages were more common in Liangshan Yi Autonomous Prefecture, and early marriage was widespread. Typically, boys and girls were matched by their parents through intermediaries when they were very young, and during this process, women were treated as commodities. A woman's marriage was viewed as selling herself in exchange for a bride price from the male family (Yan & Li, 2005).

2.2. Child Development

Child development refers to the biological, psychological, and emotional changes that occur between birth and adolescence. It involves a continuous and dynamic process of growth and maturation in various domains, including physical, cognitive, language, social, and emotional development (Fleer, 2018; Shaw, 2012; Souza & Veríssimo, 2015). One significant perspective in contemporary research is Positive Youth Development (PYD), which emphasizes the potential of children and adolescents in terms of their resources, strengths, and interests, rather than focusing on their problems and deficiencies (Damon, 2004). For instance, the concept of psychological capital highlights individuals' internal positive psychological traits and resources that can enhance growth, development, and adaptability. Its core components include self-efficacy, hope, resilience, and optimism (Luthans et al., 2007). Chinese scholars such as Fan et al. (2015) further advanced this concept by developing a psychological capital scale tailored to the specific characteristics of rural left-behind children in China, notably adding a unique dimension—*understanding and gratitude*, which reflects the influence of

Confucianism. Self-determination theory (SDT; Deci & Ryan, 2012) is also frequently applied in the context of child development. It proposes an influential mini-theory that is based on psychological needs, including three essential needs for children's well-being and mental health: autonomy, referring to the individual's capacity for self-determination and control over one's actions and life goals; competence, the perception of one's abilities and skills, leading to a sense of achievement and confidence; and relatedness, the need to feel connected to and supported by others. Of particular relevance is the internalization mechanism within SDT (Al-Hoorie et al., 2022; Deci & Ryan, 2012), which explains how external rules and values can be integrated into a child's internal psychological structure. This process ranges from externally regulated behaviors (e.g., driven by rewards or punishments) to fully internalized actions aligned with one's personal values.

Among the many means to support child development, sport has been regarded as a particularly effective approach (Holt et al., 2012; Super et al., 2014). For example, Morgan et al. (2019) found that weekly boxing sessions helped enhance the psychological capital of marginalized youth and fostered social inclusion. Similarly, Simón-Piqueras et al. (2024) reported that a 36-session sports education program significantly improved the satisfaction of psychological needs among children from socially vulnerable backgrounds. The fulfillment of basic psychological needs is considered crucial for achieving positive developmental outcomes in sports-based interventions for children (Inoue et al., 2015; Nascimento Junior et al., 2021).

2.3. SBSPs

Scholars generally define SBSP around their functions. Sherry and Coalter (2009) provided a functional definition of SBSP as "intentionally using sports to achieve non-sports outcomes, such as social cohesion, health promotion, or crime reduction." Although subsequent scholars have defined it differently in scope and focus (Schulenkorf & Edwards, 2012; Whitley et al., 2019), the definitions converge on using sports to achieve social good.

In China, due to the unique understanding of the term "social," SBSPs are often distinguished from official power, emphasizing mass participation and stressing that they are initiated and participated by various social organizations or individuals, i.e., bottom-up initiatives (National Sports College Textbook Committee, 1989). Therefore, they are more aligned with actual needs. Social projects, particularly concerning children's welfare, have played a pioneering and innovative role, becoming more aware of the diverse needs of vulnerable children (F. Liu & Yu, 2015), and have led to the creation of projects using sports as a foundation for child development. This adds a unique significance to SBSPs in China.

The "positive developmental" outcomes of SBSPs have been shown to vary widely across different studies, reflecting the diversity of project types and target populations. For instance, Beaulac et al. (2011) examined a community recreational center that offered weekly free dance classes to youth in disadvantaged neighborhoods. These socially oriented, structured, and accessible activities were found to enhance participants' mood, self-confidence, and respect for diversity. Similarly, Hasanpour et al. (2014) reported that a pseudo-family center providing 24 aerobic exercise sessions over two months to orphaned girls significantly improved their self-esteem. In another case, Riley and Anderson-Butcher (2012) described a 19-day summer camp that included three hours of daily sports instruction, which fostered greater proactivity and self-discipline among youth from impoverished areas.

The view of an SBSP as a powerful tool for promoting the development of vulnerable children has been widely studied in regions such as the United States, the United Kingdom, and Canada (Hermens et al., 2017; Morgan et al., 2019). However, there is still a lack of sufficient empirical data on SBSPs' impact in China, especially in terms of the detailed exploration of participants' experiences. The results of positive development are significantly influenced by factors such as the type of sports program, implementation methods, project personnel, participation modes, and the social background of the participants (Coakley, 2011; Coalter, 2013, 2015). Therefore, the implementation of SBSPs in China, given its different conditions, also deserves further investigation.

3. Method

The author employed a field study approach (Chipchase, 2018) and, beginning on July 7, 2024, lived for three weeks in the teacher's dormitory of the "Angel" project as a photographer, sharing daily life and meals with the participants.

3.1. Settings

Established in 2015 by civil society members, the "Angel" project aims to cultivate sports skills in vulnerable children while addressing basic living needs. It seeks to foster well-rounded and independent character development, enabling children to overcome adversity, better integrate into society, and ultimately pursue future career opportunities. It created China's first public welfare baseball team and added artistic gymnastics in year two, making it pioneering and representative. The project has since accumulated data—including growth records, training results, competition outcomes, and media coverage—offering empirical support for research. It is located in the suburbs of Beijing and is registered under a 5A-level foundation approved by the Beijing Civil Affairs Bureau and operates through public donations. As a legally qualified social sports initiative with public recruitment capacity, it offers a practical model.

At the time of entry, the project's beneficiaries are vulnerable children aged 7–9, including those from impoverished families, orphans, de facto orphans, and children of incarcerated parents. During the research period, more than 80 children aged 7–14 were residing at the base. They came from nine provinces and cities across China and represented six ethnic groups, with ethnic minorities accounting for 75% of the total. The recruitment process for the "Angel" project involves the following steps: (a) selecting suitable children from lists provided by local governments and institutions, followed by on-site verification of family poverty status; (b) conducting physical examinations to ensure the absence of infectious or hereditary diseases; (c) assessing basic physical fitness through tests such as running, jumping, and throwing; (d) transferring selected children to the Beijing base for a three-month adaptation—those unable to adjust are returned; (e) those who stay sign a training and support agreement with their legal guardians.

Children complete China's nine-year compulsory education at nearby schools while receiving specialized sports training at the project base. They formed baseball and artistic gymnastics teams to participate in various sports competitions. As children grow—based on development, performance, and academics—they may enter vocational schools, universities, pro teams, or become grassroots coaches—gaining career direction and job prospects.

3.2. Participants

Participants were purposefully sampled from students over 12 years of age who had been living at the base for more than three years. The sampling was based on initial observations and preliminary analysis (see Table 1), with the requirement that participants should be able to clearly express their thoughts and emotions, enabling the author to gather rich, in-depth information. Participants needed to have a certain level of self-expression and understanding, a strong interest in participating, and honesty.

Table 1. Basic information of participants, all from the boys' baseball team and girls' gymnastics teams of the project "Angel."

ID	Age (year)	How long in the Project (year)	Hometown	Ethnicity	Gender
P1	13	5	Yunnan, Baoshan	Han	Male
P2	13	4.5	Sichuan, Liangshan	Yi	Male
P3	13	4.5	Yunnan, Baoshan	Han	Male
P4	13	5	Sichuan, Liangshan	Yi	Male
P5	12	4	Sichuan, Liangshan	Yi	Male
P6	14	5.5	Sichuan, Liangshan	Yi	Female
P7	13	4.5	Sichuan, Liangshan	Yi	Female
P8	13	5	Sichuan, Liangshan	Yi	Female
P9	13	5	Sichuan, Liangshan	Yi	Female
P10	13	4.5	Hebei, Langfang	Han	Female

3.3. Data Collection

Non-participant observation was conducted at different locations (see Table 2) and results were recorded through video and field notes.

Table 2. Non-participant observation time and location records.

Days of observation	Gymnastics Gym (hours of observation)	Baseball Field (hours of observation)	Yard of the project base (hours of observation)	Cafeteria (meals together)
Monday	16	10	3	5
Tuesday	9.5	9	2.5	5
Wednesday	7.5	8	3	4
Thursday	6	7	2	6
Friday	7	9	1.5	2
Total Time	46 (45.54%)	43 (42.57%)	12 (11.88%)	22

Note: Informal interviews were driven by real-time observations, asking questions about observed events and behaviors, and attempting to interpret the motivations and meanings behind the actions.

Formal in-depth interviews were conducted individually in a quiet, undisturbed setting, each lasting 40–60 minutes, totaling 17 hours. The author built rapport with the children beforehand through daily interactions and some informal interviews, adopting a "least-adult membership" approach (Danby et al.,

2011) to reduce authority, making the interview feel more like a regular conversation. Open-ended questions were used to reduce any presuppositions about the children's responses, and refreshments were provided during the interviews to make the environment more natural.

After each interview, the author transcribed the recordings, documenting key information until two consecutive interviews with new participants failed to provide additional topics, signaling data saturation.

3.4. Ethical Considerations

This study was approved by the Ethics Committee of the School of Physical Education at Hangzhou Normal University and monitored by the National Social Science Fund of China to ensure compliance with the Ethical Guidelines for Social Science and Humanities (European Commission, 2021).

Fieldwork began after signing an agreement with "Angel" project leaders, obtaining informed consent from the children's entrusted guardians. Children's consent was also crucial. The author regularly explained the research to ensure their understanding, clarifying they could withdraw at any time without consequences. Data collection started only after confirming their willingness to participate.

To protect participant privacy, names were replaced with codes, place and project names were anonymized, and all data was presented after project approval and securely stored on the author's password-protected computer, in accordance with the General Data Protection Regulation (European Parliament, 2016).

3.5. Data Analysis

Following the guidance of Braun and Clarke (2006, 2021) for thematic analysis—a method of identifying, analyzing, and reporting patterns or themes within data—the author transcribed the interview recordings verbatim. The materials were repeatedly read, and after verifying the accuracy of the transcriptions, they were imported into MaxQDA2020 software along with field notes and images for coding.

Table 3 presents the coding content across three stages, and an inductive and iterative approach guided the data analysis. First, raw data were labeled and condensed into 832 nodes. Conceptual codes were then developed to capture key ideas related to how sports support vulnerable children's development, continuing until code saturation. Similar codes were grouped into subthemes, and a theme map was constructed following the suggestions of Braun and Clarke (2006). Core themes were refined based on internal consistency and external distinction. Invalid or overlapping themes were removed or merged. Each theme was evaluated for clarity and coherence, ensuring alignment with the dataset and research goals to achieve meaning saturation.

Table 3. Core themes, subthemes, and codes.

Core themes	Subthemes	Codes
Initial Backgrounds	Isolation Lacking education Poverty Family	Want to see what it's like outside the mountains. Have never been out of Liangshan, the farthest I've been is to the town, and I've had very little contact with people from other places. Peers dropped out of school after high school, lacked family education, and lacked social education. Walking on mountain roads to school, reluctant to wear socks, low income, no toilet, no bathing. Single-parent families, parents divorced, mother remarried, disability, multiple children, arranged marriages.
Developmental Challenges	Social and Emotional problems Limited Cognition and Misconduct Weak Psychological Capital	Poor Mandarin, distrust of others, lack of empathy, selfishness, lack of role models, poorly educated, bad temper. Don't know what to do with their life, lack ambition, first exposure to external society with strong material desires, stealing things, lying. Lack of confidence, easily frustrated.
Collective Life	Building Relatedness Ideological Education and Management Independent Living	Building trust with peers, functional roles in sports, and off-field social circles. Taking on daily chores, learning to admit mistakes, coaches emphasizing ideological education, management must not slack off. A more convenient life, the challenge of independent living, controlling desires, developing a regular routine and diet, role models among peers, missing family, and receiving encouragement from family.
Sport Activities	A Big collective ritual Opportunities in Sports Activities Improvement of Lacking Ambition	Gaining a sense of collective belonging and identity after a big game, infighting is strictly forbidden. Speaking Mandarin, making more friends, experiencing difficulties never experienced before, learning to overcome difficulties, not giving up, emotional management in competitions, discipline and execution in competitions, courage in competitions. Expanding cognitive horizons, the contradiction between material desires and actual capabilities, improvement of lack of ambition, setting goals such as becoming a first-class athlete and winning competitions.
Growth	Confidence and Social Skills Sense of Responsibility Expectation of the Future	Becoming confident, learning to resolve conflicts, learning to reflect and apologize. A sense of collective responsibility, social responsibility, gratitude, and understanding. Emphasis on personal growth, aspirations for the future, and the desire for independence.

3.6. Validity and Reliability

During the data collection process, to ensure the reliability and completeness of the data and improve the interpretability of the research questions, the author supplemented the study with in-depth interviews with three coaches (C1, C2, C3) and two volunteers (V1, V2):

C1: Head coach of the men's baseball team, started coaching baseball in the early 1970s.

C2: Men's baseball coach, project leader, former captain of the Chinese national baseball team.

C3: Head coach of the women's artistic gymnastics team, former captain of the Chinese national women's artistic gymnastics team.

V1: University volunteer, has served at the base for 3 months.

V2: High school volunteer, has served at the base for 1 year.

By combining the obtained data with the author's observations and interviews with participants, a triangulation of multiple data sources was formed to ensure cross-validation of the data.

During data analysis, the author repeatedly proofread materials and regularly shared results with participants to assess whether they accurately reflected participants' descriptions. In addition, the author also regularly consulted with a research team consisting of one psychology professor, one sports professor, and two PhDs specializing in qualitative research methods in sports to ensure research plan rigor and review emerging categories and themes.

The author used the classification consistency index to assess coding reliability. Specifically, the proportion of consistent labeling classifications by multiple coders for the same materials was calculated using the formula: $CA = (T1 \cap T2 + T2 \cap T3 + T1 \cap T3) / (T1 \cup T2 \cup T3)$. T1 is the number of labels coded by Coder 1, T2 is the number of labels coded by Coder 2, and T3 is the number of labels coded by Coder 3. Two trained researchers, together with the author, coded 25% of the materials. The calculated classification consistency index $CA1 = 0.77$ indicates good coding consistency in this study.

4. Results

Data analysis of the field study revealed five core themes: Initial Backgrounds, Developmental Challenges, Collective Life, Sport Activities, and Growth (see Figure 1).

4.1. Initial Backgrounds

Participants described their initial environments in interviews, highlighting challenging factors and constraints. After reviewing field photos of the initial environments and cross-referencing with coaches, the author identified four subthemes: isolation, lacking education, poverty, and family.

4.1.1. Isolation

Participants P2, P4, P5, P6, P7, P8, and P9 mentioned the isolation of their original environment, their longing for a life beyond Liangshan, and limited mobility due to rare contact with outsiders. For example:

I really wanted to see what's beyond the mountains. Before C1 picked me up for this project, I had never been outside of Liangshan. (P2)

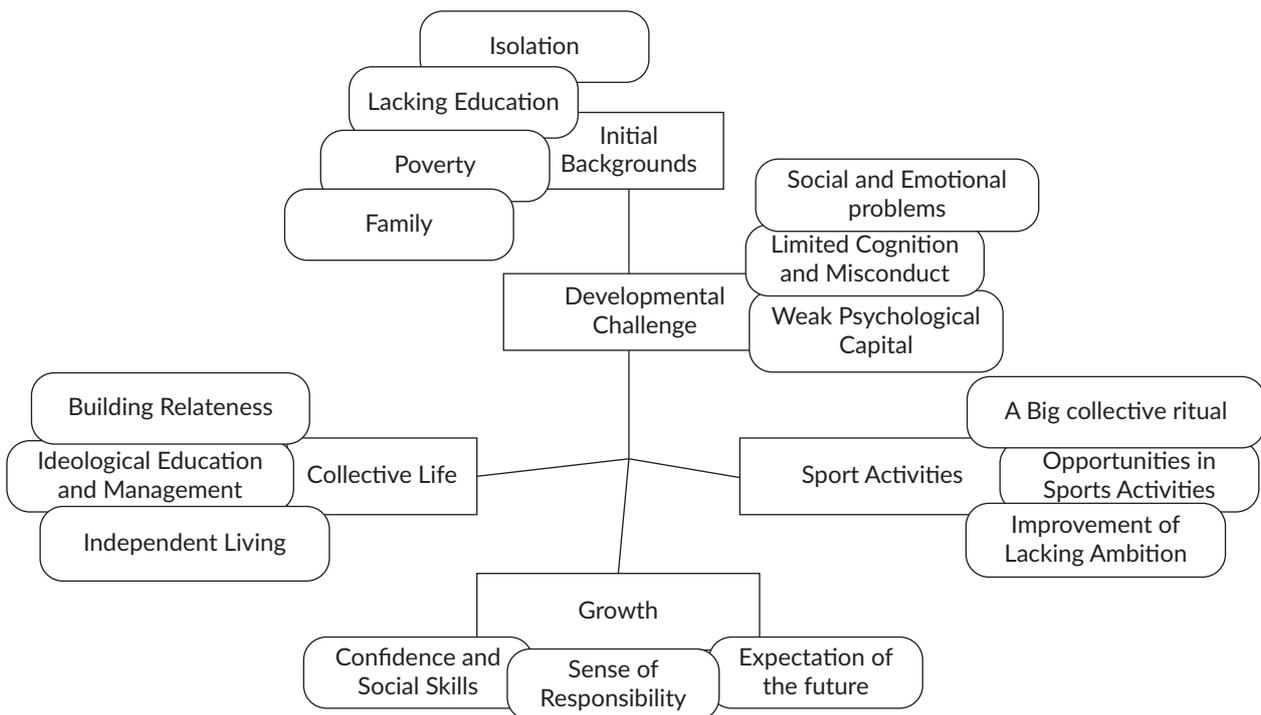


Figure 1. Theme map of five core themes and 16 subthemes.

The farthest we will go is to the town, and we basically don't come into contact with people from outside. (P8)

4.1.2. Lacking Education

P2, P5, P8, and P9 mentioned difficulty accessing schooling; P4 and P10 also noted the lack of family education:

Many people drop out of high school and go home to work. (P2)

I used to be rude because I learned bad language at home from my brother. (P10)

Due to limited resources, Liangshan children have little access to social educational facilities such as museums, libraries, youth centers, or cultural activities. C1, C2, and C3 also mentioned their lack of social education:

These children lack school education, lack family education, and social education is completely absent. (C1)

4.1.3. Poverty

Economic poverty was also mentioned, along with poor local infrastructure. Several participants P2, P4, P5, P6, P8, and P9 walked over 40 minutes on unpaved roads to reach school:

It's not a cement road...it takes a long time, usually 40–50 minutes. If I run, it's a bit faster. (P5)

It's horrible when it rains; the mountain roads turn to mud, and I get all messy. I never wanted to go to school, so I'm really glad I don't have to suffer this anymore. (P8)

One Liangshan child defecated in the hallway on his first night in the project—seemingly absurd, but explained by the absence of toilets back home and unfamiliarity with using restrooms. When asked, the participants confirmed this:

There are no toilets, we just go to places where there's no one to poop. (P4)

In the Liangshan mountains, it's like that...we hardly ever bathe, maybe once or twice a year. (P6)

P4, P5, P7, and P8 reported low family income, mostly from farming. Some relatively better-off families raised livestock to supplement income. Additionally, the author observed that many children did not wear socks during training. Initially perceived as poor hygiene, participants later explained they avoided wearing their limited socks during training.

4.1.4. Family

Many children have disadvantaged family backgrounds. More than half came from single-parent families, with one or both parents absent or working away, leading to a lack of education and supervision at home. This results in limited education and supervision. Causes included paternal abandonment, divorce, disability, remarriage, imprisonment, or death. One child mentioned:

After my dad left, my mom remarried, and we don't really stay in touch. My grandparents take care of me. (P5)

Some also faced pressure from traditional marriage expectations. P6, P7, P8, and P9 expressed powerlessness about their future, with families arranging marriages to unwanted partners:

If I were still in Liangshan, I would just get married, and my dowry would be given to my brother to marry a wife. (P7)

If I hadn't come here, I would have been married off to someone...someone my family chose, probably someone I didn't like. (P9)

4.2. Developmental Challenges

Due to adverse initial backgrounds, these vulnerable children exhibit developmental challenges. Based on observations and interview summaries, three subthemes were identified: social and emotional problems, limited cognition and misconduct, and weak psychological capital.

4.2.1. Social and Emotional Problems

Some children from ethnic minorities encountered language barriers when they first arrived at the base. Field observations showed they struggled to speak Mandarin fluently with teachers and donors. Participants stated:

Back in Liangshan, we mostly spoke Yi, there was no environment for speaking Mandarin. (P7)

Many participants also reported emotional issues: poor tempers, impulsiveness, and difficulty trusting others:

I had a bad temper at first and often fought with teammates over trivial matters. We even fought a few times. (P2, P4)

At first, I didn't trust others, always felt like no one would really be kind to me. (P10)

Before gymnastics and C3's introduction, the project had already started supporting girls' basic living needs, and they trained in baseball alongside boys to exercise. Male coaches adopted the stereotyped child-rearing notion in China of "raising sons poor, daughters rich," and assigned the best resources to girls. This led to overindulgence; P6, P8, and P9 recalled being self-centered, believing they deserved the best, and lacking female role models:

We used to be self-centered, and when we first started gymnastics, we'd sabotage each other, throwing equipment and blaming others for receiving it. We didn't reflect on ourselves. (P7)

We were a bit rude to the boys at the base...because we didn't know how to behave like girls. It was only after C3 came that we learned what it meant to be a girl. (P6)

C3 added:

Originally, these kids were selfish. Before the girls' project officially started, we gave them the best resources, which spoiled them. They lacked discipline, girl's manners, and were hard to manage. I nearly gave up on them during the first six months. (C3)

4.2.2. Limited Cognition and Misconduct

At first, most children did not know what they wanted, lacked goals, and had limited cognition with no ambitions:

I didn't know what I wanted to do. They told me to study hard, but I didn't know what I was studying for. The best I could do was work in the town. (P2)

I just passed time at school. I used to think baseball and tennis were the same thing. (P8)

They were also weak at resisting desires, aiming for materialistic goals upon first contact with society. In observations of lunch breaks, younger children often asked the author about phones, cars, or becoming

internet celebrities. Half of the participants also shared experiences of stealing items or lying, not fully understanding the concept of ownership:

I didn't understand back then. I just wanted it, so I stole my summer camp mate's toothpaste. (P10)

I used to lie about winning a chess game, and even fought with my teammate because of it. (P5)

4.2.3. Weak Psychological Capital

Initially, participants believed they had very weak psychological capital. For example, participants P4, P7, P8, and the author mentioned that they lacked confidence, and P1, P2, and P7 also mentioned that they were easily frustrated:

When I first came to the project, I was afraid I would be looked down upon. I was not confident and didn't like talking to others. (P1)

In the first year at the project, I didn't perform well in some activities, and I became very negative and down for quite a while. (P7)

4.3. Collective Life

Another frequently mentioned aspect was collective life: living together, facing peer friction, receiving coach guidance, and adapting to independent living and labor responsibilities. This theme includes three subthemes: building relatedness, ideological education management, and independent living.

4.3.1. Building Relatedness

P1, P3, P4, and P7 noted that building daily-life connections with teammates helped improve cooperation on the field:

Definitely more interaction in daily life, like playing games together, chatting, talking about anything. (P3)

Author observations showed field roles often mirrored off-field social circles, such as infielders or rhythmic gymnasts practicing the same routine.

4.3.2. Ideological Education and Management

The project's management of participants' daily lives differs from regular schools. The author observed that children in the project often took on various tasks within their capabilities, such as serving food in the cafeteria, cleaning dishes, or sweeping the yard. C1, C2, and V1 stated this setup aimed to prevent dependency on aid:

Coming here for help is not about pampering, comfort, or enjoyment; it's about making them self-reliant and strong. We hope that through their practical contributions, they understand that they must create

labor outcomes with their own hands. That's why we also let children lay the turf on the field and set up their own dormitories. (C1)

The coaches placed great emphasis on ideological education. The author observed that codes of conduct for daily life, athletes, and coaches were prominently posted in visible areas such as the cafeteria and classrooms (see Figure 2). Almost every participant mentioned that when they first arrived, the education they received was not centered on sports training but on moral development. For example:

Don't waste food, don't use foul language, greet teachers—these are things C2 taught us. He said at the beginning that the first thing we need to learn in sports is how to be a person. (P1)

At first, I only handled training, but gradually got involved in daily management and ideological education. They must learn how to be good people before learning to play sports. These kids lacked basic education and had bad habits. As a coach, I helped correct that. (C3)



Figure 2. Written in the canteen training requirements, rules of life and even coach requirements emphasize standards of ethics and behavior.

Some children made mistakes due to their past environments and limited cognition, such as the aforementioned defecation incident. Once this happened, coaches did not choose to reprimand or punish them but instead encouraged them to admit their mistakes and used the opportunity for responsibility education. C2 explained:

I don't investigate. From an ideological education perspective, I want them to admit their mistakes on their own because they didn't know at first. Mistakes like this can be forgiven. What's more important is whether they have the courage to admit their mistakes. That's more important than the defecation mistake.

4.3.3. Independent Living

Though the “Angel” project provides structure and convenience, children face independent living challenges. Participants reported learning to control desires, build routines, and eat healthily. Peer role models and weekly family calls were helpful:

I used to stay up late gaming, especially during a time when I skipped sleep to rank up, which left me exhausted in training. After moving in with P1, I saw how disciplined he was—sleeping on time and doing extra morning practice. I felt that indulging myself seemed weak, so I gradually fixed my routine. My training quality improved, and as a result, my appetite got better too—I stopped being picky and everything tasted good after intense practice. (P5)

Getting up in winter or early summer was tough. I wanted to slack off and missed home. However, weekly calls with my mom encouraged me to cherish this rare opportunity. (P9)

4.4. Sports Activities

Through sports activities, participants gained a sense of collective identity and formed friendships. This section includes three subthemes: a big collective ritual, opportunities in sports activities, and improvement of lacking ambition.

4.4.1. A Big Collective Ritual

P1, P2, P4, P6, P7, and P9 recalled a strong sense of identity and belonging formed during a big game or training camp.

Since my first competition, my teammate and I realized: “Oh, I’m a baseball player now.” We began to really recognize the teammates had gone through a hard battle together and developed a sense of collective belonging. (P2, P4)

Coaches maintained unity, discouraged negative emotions, and strictly prohibited internal conflicts:

Before one competition, we hadn’t practiced well and started arguing. C3 lectured us very strictly: “Whatever happens, our fights are not within the team. Anyone who criticizes a teammate will be told to leave.” (P6)

4.4.2. Opportunities in Sports Activities

Sports provided key opportunities. The longer minority children stayed, the more their Mandarin improved. P2, P5, P6, and P8 said communicating with referees and teammates in sports pushed them to use Mandarin more fluently:

Every time we went to a city for a game, everyone spoke Mandarin, the referees spoke Mandarin, and we had Han teammates, so we used more Mandarin. Eventually, speaking it just became easier. (P6)

P4, P5, P7, P8, and P9 said sports interactions helped them make friends and overcome introversion:

I met more friends here. I used to be introverted, but in training, you have to interact with teammates, and the more you interact, the better the relationships get, especially with the infield players. (P4)

P1, P2, P3, P4, and P7 said sports challenges helped them grow emotionally and become more resilient:

The first time I achieved a result was hard. C3 made it our phone wallpaper and told us to remember that joy in hard times. (P7)

“I was totally unprepared for my first match. I rushed my throws and we lost. For the next month, I didn’t want to play anymore. C1 gave me special training, simulating high-pressure moments with three players on base. He said, ‘Haste makes waste,’ and now I’m a calm player. (P2)

Participants credited their ability to overcome difficulties to personalized, patient coaching:

C1 fulfills his duty. When P2 withdrew after a loss, he got training and motivational talks. P4 was arrogant after losing and didn’t see his flaws—you have to humble him. Every child is different. (V1)

P1, P3, P4, P5, and the author noted competitions built discipline and courage, as each decision directly affected team outcomes. Athletes learned to take responsibility, face failure, and make bold decisions:

There’s definitely pressure, like deciding whether to go for first or second base. You can’t act impulsively, if you make the wrong decision, the team can lose and you will take the blame. Even though no one will blame you, you still feel the responsibility. (P1)

4.4.3. Improvement of Lacking Ambition

P2, P4, P5, P6, P7, P8, and P9 said sports competitions took them to places like Hainan, Zhejiang, and Shenzhen, broadening their horizons. However, they also experienced a conflict between material desires and practical abilities. From the coaches’ perspective, although their goals after engaging with society need guidance:

They have difficulties, they’re not wealthy. Coming to this project, they can now dream of a better future, set clear goals, and work toward them. Right now, they easily say they want an iPhone, branded shoes, or nice clothes, but before they’re able to be self-sufficient and support themselves well, their goal should be self-reliance and self-improvement. (C3)

With proper guidance, coaches help improve ambition and develop a sense of control over life, especially for girls from Liangshan:

Their values haven’t yet become inner wealth, but after traveling for competitions, they’ve seen more and gained reference points. They’ve encountered excellent people. These experiences become teaching moments—while others watch TV and eat chips, I’m training; while others rest, I’m still training. By putting in more effort, I’ll gain more. Gradually, they’ll clarify what they want. (C1)

For instance, I would let them choose what to start training with, such as rope or clubs, because I intend to encourage their sense of autonomy by allowing them to make their own decisions. (C3)

All participants shared short-term goals in interviews, like improving fitness, increasing pitching speed, winning competitions, or attaining first-class athlete status. For example:

Whenever I feel lazy, I remind myself that I need to become a first-grade athlete. (P6)

I haven't chosen between coach and player—I'll go step by step. Achieving my last little goal was rewarding. Now, I aim to increase pitching speed. (P1)

4.5. Growth

Based on the interviews with participants, combined with the author's observations and coaches' evaluations, it is clear that the participants mainly developed confidence, social skills, a sense of responsibility, and an expectation of their future.

4.5.1. Confidence and Social Skills

P1, P6, P7, and P8 all mentioned to the author that they have become more confident:

I feel that I have gained a more direct sense of achievement, and I am full of confidence in every aspect of my life because I've put in a lot of effort and feel that I'm not worse than others. (P1)

Before, I felt a little inferior when compared to peers from big cities, but coming here, C2 taught us, and now I feel that my temperament is completely different from before. (P7)

P1, P2, P3, P5, P6, P8, and P10 mentioned that their ability to resolve conflicts has improved. When conflicts arise, they have learned to think from others' perspectives or make appropriate compromises, for example:

There are inevitably some conflicts, and then we make some compromises. Arguing doesn't solve anything, and it just hurts feelings. (P8)

What's different now is that when there's an argument, I'll calm down and try to understand things from the other person's point of view. I also realize when I'm wrong and have learned to apologize to my teammates. In the end, everything's fine. (P2, P3)

4.5.2. Sense of Responsibility

Some participants also showed concern for others and demonstrated a collective sense of responsibility, especially P6, P7, P9, and P10, who mentioned that during the most challenging times in artistic gymnastics training, they didn't choose to quit or give up because they didn't want to abandon their teammates:

If I quit, it would be very irresponsible to the team because if I left, they wouldn't be able to complete a set routine in time for the competition....It wouldn't be fair to my teammates. (P10)

Additionally, in interviews with P1, P2, P3, P4, P5, P6, P7, P8, and P10, they mentioned a sense of gratitude and social responsibility:

I hope to achieve good results in competitions, which would live up to society's expectations and the coach's training. (P1)

If I earn money in the future, I want to buy a house for my family, treat the coach to a meal, and start a project to help children in need in society. (P8)

4.5.3. Expectation of the Future

Every participant demonstrated a strong focus on personal growth, a vision for the future, and a sense of independence:

I work hard because I think this is a golden stage, and also because I have nothing at the moment. I need to use my own hands and bat to build my future. (P1)

Before, I felt like I had no control over my life, and I thought I'd just grow up and get married. Now I have a goal and feel fulfilled every day, trying to make myself stronger. What I do in the future will depend on myself. (P3)

I felt like I didn't know anything. But now, I've made great progress in sports. I feel that by training hard, I can at least become a coach in the future and earn my own living. (P8)

5. Discussion

Based on our findings from the subjective experiences of vulnerable children, the author's field observations, and the coaches' evaluations, vulnerable children faced many disadvantages due to their background, which led to various challenges. After entering the project, they grew through the support and opportunities offered by collective life and sports activities.

5.1. Background of the Children

The seven ethnic minority children from Liangshan, Sichuan, differed notably from the three Han children, mainly due to their backgrounds. Liangshan is the largest ethnic Yi autonomous region in China. Due to multiple factors such as geography, history, and culture, the environment in which these children grew up was relatively isolated. In interviews, they said they had never left Liangshan and viewed Mandarin as a "useless foreign language," lacking real-life contexts to support learning—leading to weak proficiency upon joining the project. Although Mandarin is the official language of China (Adamson & Feng, 2022), its promotion has been ineffective in adapting to the practical scenarios of ethnic minorities (Ma, 2017). However, the children in the "Angel" project frequently needed to use Mandarin during sports activities, which gradually helped them acquire and improve this communication skill. The development of communication skills is beneficial for these children to integrate into mainstream society in the future, reducing their social vulnerability (Haudenhuyse et al., 2014).

Moreover, the social circle of the seven Yi children lacked interaction with the outside world. Having never left Liangshan, the children had little exposure to people from different backgrounds, limiting their social abilities (Bi et al., 2024). The children's cognitive framework, shaped by their upbringing, also limited their ambitions due to a lack of vision (Eccles & Wigfield, 2002). Upon joining the project, these children gained more interaction opportunities through sports activities, overcoming their personality barriers, and making more friends. This aligns with previous studies, which show that sports programs provide vulnerable youth with more positive social opportunities, thereby promoting the development of social skills (Son & Berdychevsky, 2022). Furthermore, as these children were exposed to broader societal experiences through the "Angel" project, their goals became clearer and their perspectives expanded, as scholars have noted that exposure broadens one's vision and enhances aspirations and future goals (Gore et al., 2015).

However, the development of communication skills, overcoming personality barriers, making more friends, and improving lack of ambition were not mentioned in the interviews of the three non-minority children. This is because these issues did not exist in their original backgrounds. Most of the Han children in the base had lost parental custody due to one parent being imprisoned or experiencing family disruptions, and their backgrounds were not different from those of children in general. They did not face issues of lacking social interaction, exposure, or basic education.

5.2. Supportive Conditions in Collective Life and Sports Activities

The collective life and sports activities in the "Angel" project visibly created supportive conditions for fulfilling children's basic psychological needs, which are crucial to their well-being and mental health (Deci & Ryan, 2012).

Regarding autonomy, female participants expressed concerns about lacking life choices. Particularly, under traditional Yi marriage customs, their futures were often pre-arranged—to be married off at a young age and assume domestic responsibilities in another household. This aligns with prior studies that highlight how rural women under the bride-price culture often lack control over their destiny (J. Chen & Pan, 2023; Yan & Li, 2005). These conditions deprive them of life self-direction and undermine autonomy—a basic psychological need. In contrast, within the core theme of sports activities, Coach C3 intentionally gave the girls options when choosing routines, aiming to challenge this sense of powerlessness and restore a sense of control. The importance of autonomy also lies in its role in the internalization of positive qualities. According to SDT, internalization is the motivational shift from avoiding punishment to guilt-based behavior, and finally to voluntary action based on internalized values (Al-Hoorie et al., 2022; Deci & Ryan, 2012). This mechanism emphasizes that controlling environments—those relying on pressure or punishment—can obstruct internalization. Conversely, autonomy-supportive environments facilitate it, thereby enhancing the long-term sustainability of positive traits. In this regard, Coach C2's approach to handling mistakes—encouraging children to acknowledge rather than be punished for their errors—reflects an autonomy-supportive practice. It helps foster children's sense of responsibility by guiding them to correct behavior through self-reflection rather than blame-shifting.

Second, the project also supported relatedness, which refers to the need to establish close, trusting, and caring relationships with others (Deci & Ryan, 2012; Vansteenkiste et al., 2020). Within the project's collective living environment, children developed meaningful bonds with peers. For instance, P5 mentioned that living with

a disciplined roommate helped him change his own lifestyle—he stopped staying up late playing games and adopted a more regular routine. Prior research has emphasized the strong influence of peer environments on youth development (Salvy et al., 2012). Positive peer interactions are associated with prosocial behavior and academic engagement (Gifford-Smith et al., 2005), and encouragement from peers has been shown to positively influence adolescents' behavior and motivation (Husain et al., 2024; Padilla-Walker & Bean, 2009). Although separated from their original families, the children were still emotionally supported. As observed in the field and confirmed by P9, the project encouraged regular weekly phone calls home, which helped maintain family connection and emotional stability. Earlier research also supports the psychological benefit of family contact for children living away from home (Itskowitz et al., 1990). Additionally, through sports activities, children made new friends and experienced a strong sense of collective belonging, especially during group rituals. In the “growth” theme, they described transformation—from being irritable, impulsive, and difficult to get along with, to learning conflict resolution and self-reflection. The fulfillment of relatedness reflects the human need for connection and belonging, which is essential not only for emotional stability but also for preparing vulnerable children for future societal integration and improved mental health (Deci & Ryan, 2012; Kasser & Ryan, 1996).

Finally, in terms of competence, the children were given age-appropriate work in daily life—such as cleaning or helping in the cafeteria—which helped reduce their dependence on aid and simultaneously strengthened their sense of capability (Penha-Lopes, 2006). Within sports activities, they also learned to set small, incremental goals, helping them build a sense of mastery. A notable example is P2, whose coach simulated high-pressure game scenarios during training. This experience helped him gradually develop the ability to stay composed during real competitions. Through this process, the children not only improved their athletic skills, but also built self-confidence, developed hope for the future, and cultivated the resilience to face challenges without giving up (Vansteenkiste et al., 2020; White & Bennie, 2015).

5.3. Remaining Conditions Influencing Positive Outcomes

Participants' understanding of responsibility varied by sports program, aligning with Coalter's (2015) perspective. Male participants emphasized discipline and courage, as baseball—more open-ended than artistic gymnastics—requires proactive decisions during dynamic play, offering more decision-making opportunities. The rigid routines and the substitute mechanism in artistic gymnastics do not apply to baseball, so female participants in artistic gymnastics mentioned that their departure from the team would have a significant negative impact.

Additionally, we discussed the growth of social responsibility and a sense of gratitude. As this is a charity-based project, the children were fully aware that they were being supported by compassionate individuals in society. Furthermore, Chinese education is influenced by Confucian principles such as “benevolence” and “filial piety” (Bahtilla & Xu, 2021), and Chinese scholars have identified “gratitude” as a localized form of psychological capital, particularly in studies of rural left-behind children (Fan et al., 2015). Therefore, the positive outcomes observed in these children were influenced by both the SBSPs' attributes and the broader social culture.

Moreover, the project took care of the children's living arrangements, and collective living became a central theme in the outcomes. This condition is not present in many social sports programs in other countries, such as those relying on community centers or schools to offer regular sports courses (Beaulac et al., 2011; Holt

et al., 2012). In collective living, children had more opportunities to build trust with their peers and interact with daily partners, which facilitated emotional regulation (Karcher & Fischer, 2004). In the “Angel” project case, the children received more ideological education, adopted more disciplined behaviors, and prepared for challenges in independent living.

Some scholars have mentioned that while sports-based social programs are intended to promote social inclusion, some children who lack access to sports opportunities are still overlooked by these programs (Vandermeersch et al., 2015). However, the project mitigates this issue by selectively recruiting children, ensuring that those typically excluded from sports activities due to family economic conditions, educational background, or single-parent households are included.

C1–C3, V1, and V2, as corroborative sources, informed the author that these children had poor resistance to material temptations and were easily influenced. Scholars have also noted that children living in poverty, due to unstable family conditions and a lack of educational resources, experience a diminished ability to delay gratification and control their desires, and lack the ability to set internal goals (Metcalf & Mischel, 1999). Therefore, as managers of the sports program, coaches need to maintain oversight and ensure attention to these issues. Furthermore, coaches should guide children with material goals, as discussed in the results section, helping students achieve independence through extrinsic material goals while also fostering intrinsic personal growth goals. Overemphasis on external goals may lead to neglecting psychological needs, resulting in higher levels of anxiety, depression, and mental health issues. In contrast, focusing on personal growth and future aspirations can enhance well-being and mental health (Deci & Ryan, 2000; Kasser & Ryan, 1996).

Finally, the coaching staff’s gender structure deserves attention. C3 mentioned that before female coaches were introduced, misguided parenting philosophies led to excessive pampering, which caused female participants to become selfish and unruly. Scholars have criticized the traditional Chinese notion of “raising sons poor and daughters rich,” which can reinforce self-centered behaviors in children (B. Liu & Xuhe, 2024). Therefore, introducing and prioritizing female coaches in programs with female participants is crucial. A lack of gender perspective can lead to a lack of female role models, targeted resource design, and communication barriers (Lockwood, 2006; Ridgeway & Correll, 2004).

6. Conclusion

Fieldwork was conducted based on the “Angel” project, a Chinese sports-based social project, to explore the experiences of vulnerable children, the developmental outcomes they achieved, how these developments occurred, and the influencing factors. Five core themes are presented: initial backgrounds, developmental challenges, collective life, sport activities, and growth.

This study offers first-hand empirical insights into how vulnerable children in China develop through sports-based projects and explores mechanisms and conditions driving positive outcomes by examining their lived experiences. Practically, the study highlights the potential of such projects to promote development but stresses the need for careful project design, coach awareness, consideration of children’s backgrounds, and social conditions. Coaches are expected to fulfill certain high standards in meeting basic psychological needs, managing moral education, and helping children overcome difficulties. Special attention should be

given to ethnic minority children by addressing the social barriers they face. Ensuring coach gender diversity is also vital to address female children's needs for role models, privacy, hygiene, and communication.

There are some limitations to this study. First, the research focused only on a mature and relatively well-resourced sport-based social project in Beijing, which limits its applicability to smaller-scale or rural projects. Second, the three-week fieldwork may be insufficient to capture long-term changes. Third, participant selection favored children with strong expressive abilities, which, while aiding data quality, could introduce bias. The absence of baseline data also complicates causal inference. Finally, the sample's homogeneity (mainly Yi children) limits generalizability to other marginalized groups. Therefore, this study calls for further expansion of the research scope. Future studies should examine SBSPs across different regions (e.g., urban-rural comparisons) and among diverse populations (e.g., children with disabilities, migrant children). Longitudinal designs are encouraged to better establish causality and track development post-project, assessing long-term outcome sustainability. An in-depth study of children's formative environments is also warranted to understand how socio-cultural conditions shape developmental differences. Future studies can take advantage of Chinese scholars' macro-level strengths to examine the scalability of such projects and the role of national policy in shaping effectiveness. Together, these directions deepen understanding of how sport transcends physical activity to catalyze social change—empowering vulnerable children to face adversity and shape their futures within China's context.

Acknowledgments

The authors sincerely thank the "Angel" project for its cooperation—may the children there have a bright future. Gratitude is also due to the reviewers and editors for their valuable input and support. Special thanks go to Chenjian Zhou for his selfless help during the data coding process.

Funding

This research was supported by the National Natural Found of China (project number 72274171), the National Social Science Fund of China (project number 23BTY055), and the Research Center of Sports Events and Health Promotion of the Hangzhou Key Research Base of Philosophy and Social Sciences.

Conflict of Interests

The authors declare no conflict of interest.

Data Availability

Data collected at the "Angel" project during this study are not fully publicly available due to privacy and ethical considerations. Access to the data may be granted by the corresponding author upon reasonable request and with permission from the institution.

References

- Adamson, B., & Feng, A. (Eds.). (2022). *Multilingual China: National, minority and foreign languages*. Routledge, Taylor & Francis Group. <https://doi.org/10.4324/9780429286056>
- Al-Hoorie, A. H., Oga-Baldwin, W. L. Q., Hiver, P., & Vitta, J. P. (2022). Self-determination mini-theories in second language learning: A systematic review of three decades of research. *Language Teaching Research*. Advance online publication. <https://doi.org/10.1177/13621688221102686>
- Bahtilla, M., & Xu, H. (2021). The influence of Confucius's educational thoughts on China's educational system. *OALib*, 8(5), 1–17. <https://doi.org/10.4236/oalib.1107370>

- Beaulac, J., Kristjansson, E., & Calhoun, M. (2011). 'Bigger than hip-hop?' Impact of a community-based physical activity program on youth living in a disadvantaged neighborhood in Canada. *Journal of Youth Studies*, 14(8), 961–974. <https://doi.org/10.1080/13676261.2011.616488>
- Bi, Q., Nie, P., & Yang, Y. (2024). Usage patterns and multi-dimensional thinking of preschool children in minority areas: A case study of Xichang, Xide and Ganluo in Liangshan Prefecture. *Journal of Ethnology*, 103. <https://doi.org/10.3969/j.issn.1674-9391>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*, 13(2), 201–216. <https://doi.org/10.1080/2159676X.2019.1704846>
- Bruner, M. W., McLaren, C. D., Sutcliffe, J. T., Gardner, L. A., Lubans, D. R., Smith, J. J., & Vella, S. A. (2023). The effect of sport-based interventions on positive youth development: A systematic review and meta-analysis. *International Review of Sport and Exercise Psychology*, 16(1), 368–395. <https://doi.org/10.1080/1750984X.2021.1875496>
- Charles, M. H. (2024). Strategic Offending: Colombia's part-time child drug traffickers and their community, city and country lines. *Youth Justice*, 24(2), 289–312. <https://doi.org/10.1177/14732254231214245>
- Chen, J., & Pan, W. (2023). Bride price and gender role in rural China. *Heliyon*, 9(1), Article 12789. <https://doi.org/10.1016/j.heliyon.2022.e12789>
- Chen, X. (2023). From anti-poverty to anti-vulnerability: The evolutionary logic, realistic challenges and innovative path of unsupported child welfare policies. *Chinese Social Security Review*, 7(4), 145–158.
- Chipchase, J. (2018). *The field study handbook*. Field Institute.
- Coakley, J. (2011). Youth sports: What counts as “positive development?” *Journal of Sport and Social Issues*, 35(3), 306–324. <https://doi.org/10.1177/0193723511417311>
- Coalter, F. (2013). 'There is loads of relationships here': Developing a programme theory for sport-for-change programmes. *International Review for the Sociology of Sport*, 48(5), 594–612. <https://doi.org/10.1177/1012690212446143>
- Coalter, F. (2015). Sport-for-change: Some thoughts from a sceptic. *Social Inclusion*, 3(3), 19–23. <https://doi.org/10.17645/si.v3i3.222>
- Damon, W. (2004). What is positive youth development? *The Annals of the American Academy of Political and Social Science*, 591(1), 13–24. <https://doi.org/10.1177/0002716203260092>
- Danby, S., Ewing, L., & Thorpe, K. (2011). The novice researcher: Interviewing young children. *Qualitative Inquiry*, 17(1), 74–84. <https://doi.org/10.1177/1077800410389754>
- Deci, E. L., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory. *Handbook of Theories of Social Psychology*, 1(20), 416–436.
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53(1), 109–132. <https://doi.org/10.1146/annurev.psych.53.100901.135153>
- European Commission. (2021). *Ethics in social science and humanities*. European Commission.
- European Parliament. (2016). *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R0679>

- Fan, X., Fang, X., Chen, Y., & Zhang, S. (2015). Development of a psychological capital questionnaire for rural left-behind children. *Chinese Journal of Clinical Psychology*, 23(1), 101–104.
- Fleer, M. (2018). *Child development in educational settings*. Cambridge University Press.
- Gifford-Smith, M., Dodge, K. A., Dishion, T. J., & McCord, J. (2005). Peer influence in children and adolescents: Crossing the bridge from developmental to intervention science. *Journal of Abnormal Child Psychology*, 33(3), 255–265. <https://doi.org/10.1007/s10802-005-3563-7>
- Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *The Lancet*, 373(9657), 68–81. [https://doi.org/10.1016/S0140-6736\(08\)61706-7](https://doi.org/10.1016/S0140-6736(08)61706-7)
- Gore, J., Holmes, K., Smith, M., Southgate, E., & Albright, J. (2015). Socioeconomic status and the career aspirations of Australian school students: Testing enduring assumptions. *The Australian Educational Researcher*, 42(2), 155–177. <https://doi.org/10.1007/s13384-015-0172-5>
- Hasanpour, M., Tabatabaei, M., Alavi, M., & Zolaktaf, V. (2014). Effect of aerobics exercise on self-esteem in Iranian female adolescents covered by welfare organization. *The Scientific World Journal*, 2014, 1–6. <https://doi.org/10.1155/2014/456483>
- Haudenhuyse, R. P., Theeboom, M., & Skille, E. A. (2014). Towards understanding the potential of sports-based practices for socially vulnerable youth. *Sport in Society*, 17(2), 139–156. <https://doi.org/10.1080/17430437.2013.790897>
- Hermens, N., Super, S., Verkooijen, K. T., & Koelen, M. A. (2017). A systematic review of life skill development through sports programs serving socially vulnerable youth. *Research Quarterly for Exercise and Sport*, 88(4), 408–424. <https://doi.org/10.1080/02701367.2017.1355527>
- Holt, N. L. (Ed.). (2008). *Positive youth development through sport*. Routledge.
- Holt, N. L., Sehn, Z. L., Spence, J. C., Newton, A. S., & Ball, G. D. C. (2012). Physical education and sport programs at an inner city school: Exploring possibilities for positive youth development. *Physical Education & Sport Pedagogy*, 17(1), 97–113. <https://doi.org/10.1080/17408989.2010.548062>
- Husain, H., Samsudin, S., Ayub, A. F. M., Ahmad, M. F., & Afwan, N. S. Z. S. (2024). A systematic literature review on the impact of participation in sport and physical activities on psychological resilience. *International Journal of Public Health Science*, 13(4), 1727. <https://doi.org/10.11591/ijphs.v13i4.24345>
- Inoue, Y., Wegner, C. E., Jordan, J. S., & Funk, D. C. (2015). Relationships between self-determined motivation and developmental outcomes in sport-based positive youth development. *Journal of Applied Sport Psychology*, 27(4), 371–383. <https://doi.org/10.1080/10413200.2015.1010662>
- Itskowitz, R., Orbach, I., & Yablon, Y. (1990). The effect of group therapy and correspondence with family on students' adjustment to boarding school. *School Psychology International*, 11(4), 243–252. <https://doi.org/10.1177/0143034390114001>
- Karcher, M. J., & Fischer, K. W. (2004). A developmental sequence of skills in adolescents' intergroup understanding. *Journal of Applied Developmental Psychology*, 25(3), 259–282. <https://doi.org/10.1016/j.appdev.2004.04.001>
- Kashfi, M., Salahi, S., & Sadeqi, M. (2020). Responsibility to protect doctrine to support children in armed conflict. *International Journal of Pediatrics*, 8(12), 12555–12562. <https://doi.org/10.22038/ijp.2020.52158.4144>
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22(3), 280–287. <https://doi.org/10.1177/0146167296223006>
- Liu, B., & Xuhe, M. (2024). Poor raised son, rich raised daughter? The impact of parental material punishment

- on adolescent depression and its gender differences. *Chinese Journal of Clinical Psychology*, 32(3), 571–581. <https://doi.org/10.16128/j.cnki.1005-3611.2024.03.015>
- Liu, F., & Yu, D. (2015). Constraints and ways for NGOs to participate in helping children in distress. *Academic Exchange*, 4, 155–160.
- Lockwood, P. (2006). “Someone like me can be successful”: Do college students need same-gender role models? *Psychology of Women Quarterly*, 30(1), 36–46. <https://doi.org/10.1111/j.1471-6402.2006.00260.x>
- Loeffelholz, B. J., Deckro, R. F., & Knighton, S. A. (2012). Street gangs: A modeling approach to evaluating “at-risk” youth and communities. In M. P. Johnson (Ed.), *Community-based operations research* (Vol. 167, pp. 213–249). Springer. https://doi.org/10.1007/978-1-4614-0806-2_9
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford University Press.
- Ma, J. (2017). The present situation, problems and countermeasures of Yi-Chinese bilingual teaching in Liangshan Prefecture, Sichuan Province. *Journal of Research on Education for Ethnic Minorities*, 28(1), 82–88.
- Metcalfe, J., & Mischel, W. (1999). A hot/cool-system analysis of delay of gratification: Dynamics of willpower. *Psychological Review*, 106(1), 3–19.
- Ming, L., & Wang, P. (2019). Study on Anti-Poverty in Liangshan Yi Ethnic Areas. *Journal of Ethnology*, 10(6), 116–119.
- Morgan, H., Parker, A., & Roberts, W. (2019). Community sport programmes and social inclusion: What role for positive psychological capital? *Sport in Society*, 22(6), 1100–1114. <https://doi.org/10.1080/17430437.2019.1565397>
- Nascimento Junior, J. R. A. D., Freire, G. L. M., Quinaud, R. T., Oliveira, D. V. D., & Cronin, L. D. (2021). Life skills development through sport in Brazil: A study based on self-determination theory. *Perceptual and Motor Skills*, 128(3), 1017–1036. <https://doi.org/10.1177/00315125211000860>
- National Sports College Textbook Committee. (Ed.). (1989). *Introduction to sports: General textbook for physical education institutes*. People’s Physical Culture Publishing House.
- Padilla-Walker, L. M., & Bean, R. A. (2009). Negative and positive peer influence: Relations to positive and negative behaviors for African American, European American, and Hispanic adolescents. *Journal of Adolescence*, 32(2), 323–337. <https://doi.org/10.1016/j.adolescence.2008.02.003>
- Penha-Lopes, V. (2006). “To cook, sew, to be a man”: The socialization for competence and black men’s involvement in housework. *Sex Roles*, 54(3/4), 261–274. <https://doi.org/10.1007/s11199-006-9343-1>
- Ridgeway, C. L., & Correll, S. J. (2004). Unpacking the gender system: A theoretical perspective on gender beliefs and social relations. *Gender & Society*, 18(4), 510–531. <https://doi.org/10.1177/0891243204265269>
- Riley, A., & Anderson-Butcher, D. (2012). Participation in a summer sport-based youth development program for disadvantaged youth: Getting the parent perspective. *Children and Youth Services Review*, 34(7), 1367–1377. <https://doi.org/10.1016/j.childyouth.2012.03.008>
- Salvy, S.-J., De La Haye, K., Bowker, J. C., & Hermans, R. C. J. (2012). Influence of peers and friends on children’s and adolescents’ eating and activity behaviors. *Physiology & Behavior*, 106(3), 369–378. <https://doi.org/10.1016/j.physbeh.2012.03.022>
- Schulenkorf, N., & Edwards, D. (2012). Maximizing positive social impacts: Strategies for sustaining and leveraging the benefits of intercommunity sport events in divided societies. *Journal of Sport Management*, 26(5), 379–390. <https://doi.org/10.1123/jism.26.5.379>
- Shaw, P. (2012). Child development for early childhood studies. *Education 3–13*, 40(2), 217–220. <https://doi.org/10.1080/03004279.2011.586642>

- Sherry, E., & Coalter, F. (2009). A wider social role for sport: Who's keeping the score? *Sport Management Review*, 12(4), 273–274. <https://doi.org/10.1016/j.smr.2009.05.002>
- Shi, L. (2021). Language in ethnic regions during sudden public events Research: Taking Liangshan Yi autonomous prefecture as an example. *Journal of Southwest University for Nationalities*, 1, 197–204.
- Sichuan Provincial Statistics Bureau. (2022). *Census yearbook*. <https://tjj.sc.gov.cn/scstjj/rkpcnj/tplist.shtml>
- Simón-Piqueras, J. Á., González-Cutre, D., & García López, L. M. (2024). The potential of sport education to satisfy the basic psychological needs of children from socially vulnerable backgrounds. *Journal of Teaching in Physical Education*, 43(3), 472–482. <https://doi.org/10.1123/jtpe.2023-0107>
- Son, H., & Berdychevsky, L. (2022). Social-ecological analysis of the sport and recreation programs' impacts on positive development of youth from socially vulnerable backgrounds. *Leisure Studies*, 41(5), 620–636. <https://doi.org/10.1080/02614367.2022.2037151>
- Souza, J. M. D., & Veríssimo, M. D. L. Ó. R. (2015). Child development: Analysis of a new concept. *Revista Latino-Americana de Enfermagem*, 23(6), 1097–1104. <https://doi.org/10.1590/0104-1169.0462.2654>
- Super, S., Hermens, N., Verkooijen, K., & Koelen, M. (2014). Enhancing life prospects of socially vulnerable youth through sport participation: A mixed methods study. *BMC Public Health*, 14(1), 703. <https://doi.org/10.1186/1471-2458-14-703>
- The National Bureau of Statistics of China, UNICEF, & UNFPA. (2021). *Situation of children in China: Facts and figures 2020*. https://www.stats.gov.cn/zs/tjwh/tjkw/tjzl/202304/t20230419_1938814.html
- The State Council of China. (2016, June 16). *The State Council's opinion on strengthening protection efforts for children in difficult situations*. https://www.gov.cn/zhengce/zhengceku/2016-06/16/content_5082800.htm
- UNICEF. (2016). *The state of the world's children 2016: A fair chance for every child*.
- Vandermeersch, H., Vos, S., & Scheerder, J. (2015). Who's joining the club? Participation of socially vulnerable children and adolescents in club-organised sports. *Sport, Education and Society*, 20(8), 941–958. <https://doi.org/10.1080/13573322.2013.856293>
- Vansteenkiste, M., Ryan, R. M., & Soenens, B. (2020). Basic psychological need theory: Advancements, critical themes, and future directions. *Motivation and Emotion*, 44(1), 1–31. <https://doi.org/10.1007/s11031-019-09818-1>
- Wang, H., Lu, J., Zhao, H., Li, L., & Zhou, X. (2024). Vulnerable conditions syndemic, depression, and suicidal ideation among school children in China: Cross-sectional census findings. *Child and Adolescent Psychiatry and Mental Health*, 18(1), Article 59. <https://doi.org/10.1186/s13034-024-00751-x>
- White, R. L., & Bennie, A. (2015). Resilience in youth sport: A qualitative investigation of gymnastics coach and athlete perceptions. *International Journal of Sports Science & Coaching*, 10(2/3), 379–393. <https://doi.org/10.1260/1747-9541.10.2-3.379>
- Whitley, M. A., Massey, W. V., Camiré, M., Boutet, M., & Borbee, A. (2019). Sport-based youth development interventions in the United States: A systematic review. *BMC Public Health*, 19(1), 89–108. <https://doi.org/10.1186/s12889-019-6387-z>
- WHO. (2017). *Global accelerated action for the health of adolescents (AA-HA!): Guidance to support country implementation*. World Health Organization.
- Xie, H. (2023). The value implication, problem portrayal and optimization path of protecting the rights and interests of children in rural difficulties. *Journal of Hunan University of Science and Technology*, 26(5), 128–134.
- Xu, X. (2021). Research on the implementation effectiveness of classified security policies for vulnerable children: Based on the perspective of social organization welfare provision. *Academic Journal of Zhongzhou*, 9, 87–94.

Yan, X., & Li, L. (2005). Patriarchal research on traditional marriage form of Southwest Yi nationality. *Social Sciences in Guizhou*, 2, 37–39.

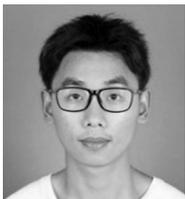
About the Authors



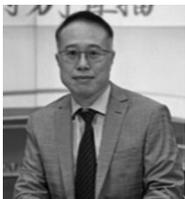
Zichen Zhuang is a master's student majoring in humane and sociological science of sports at the School of Physical Education, Hangzhou Normal University, China. He has remained active in practicing anthropological methodologies and social psychological theories. His research interests revolve around marginalized groups within the structural environment and athletic communities in cross-cultural contexts.



Xi Yang (PhD) is a lecturer at the School of Physical Education and Equestrian, Wuhan Business University, China. Specializing in sports sociology, her research program investigates sports fandom dynamics through the lens of psychosocial engagement and systemic approaches to youth sports development.



Xiaolong Chen is a master's student majoring in theory of sports pedagogy and training at Hangzhou Normal University, China. His research focuses on the role of physical activity in promoting health, including its effects on physical fitness, mental well-being, and the prevention of chronic diseases. He is committed to exploring the effectiveness of exercise interventions across different populations.



Hongjiang Wang (PhD) is a professor in the School of Physical Education at Hangzhou Normal University, China. Former Deputy Editor of the *Journal of Chengdu Sport University*, he now serves as Deputy Secretary-General of the Chinese Sociological Association's Sports Sociology Committee. His research interests focus on sports culture and history.