



GLOBAL PUBLIC SATISFACTION LEVELS WITH THE SPORT OF PICKLEBALL

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Abstract: Pickleball has rapidly expanded globally due to its accessible gameplay and perceived health and social benefits. This study examined global public satisfaction with pickleball across ease of play, health benefits, social/community aspects, and facility availability. A descriptive quantitative design was employed using an online survey of 2,000 respondents from North America, Europe, Asia, and Australia. Data were analyzed using descriptive statistics (means and standard deviations). Overall satisfaction was high (M = 4.30; SD = 0.61). The highest-rated dimensions were ease of play (M = 4.63; SD = 0.49) and social/community aspects (M = 4.48; SD = 0.53), followed by health benefits (M = 4.17; SD = 0.78). Facility availability received the lowest score (M = 3.83; SD = 0.77), indicating infrastructure and access remain key constraints in some regions. Global satisfaction with pickleball is strong, driven primarily by accessibility and social value, while facility provision is a priority area for policy and sport development.

Keywords:: pickleball; public satisfaction; recreational sport; global trends;

1. Introduction

In the contemporary era, the role of recreational sport has become increasingly significant in supporting global public health, psychological well-being and social cohesion. Modern society is currently facing major challenges related to sedentary lifestyles, rising stress levels, social isolation and declining physical activity participation across different age groups. The rapid advancement of technology and urbanization has contributed to reduced active lifestyles, particularly among adults and elderly populations. According to international public health reports, insufficient physical activity remains one of the leading risk factors contributing to non-communicable diseases such as obesity, cardiovascular disease, hypertension, diabetes and mental health disorders. Consequently, governments, health organizations and sport institutions around the world are increasingly encouraging participation in accessible and sustainable forms of recreational physical activity that can be practiced by people from various social, cultural and economic backgrounds.

Within this context, pickleball has emerged as one of the fastest-growing recreational sports globally. Originally developed in the United States during the 1960s as a family-oriented backyard game, pickleball has transformed into an internationally recognized recreational and competitive sport played in numerous countries across North America, Europe, Asia and Australia. The sport has experienced remarkable growth in participation over the last decade, particularly after the COVID-19 pandemic, when many individuals began seeking socially engaging yet relatively safe recreational activities. Recent evidence indicates that pickleball participation has expanded rapidly due to its accessibility, low learning barriers and inclusive nature (Stroesser et al., 2024). The sport is now increasingly integrated into community recreation programs, school sport activities, university clubs, senior citizen wellness initiatives and public health campaigns.

One of the main reasons for the increasing popularity of pickleball lies in its unique game characteristics. Pickleball combines elements of tennis, badminton and table tennis while utilizing a smaller court, lightweight paddles and a perforated plastic ball. Compared with traditional racket sports such as tennis, pickleball is generally considered easier to learn and less physically demanding. The smaller court dimensions reduce excessive physical strain, making the game more manageable for beginners, older adults and individuals with varying levels of physical fitness. These characteristics have positioned pickleball as a highly inclusive recreational activity suitable for participants of different ages, genders and abilities. Cerezuela et al.

(2023) explained that the accessibility and simplicity of pickleball are among the primary factors driving its widespread adoption across different communities. Similarly, Stroesser et al. (2024) emphasized that the sport's intergenerational appeal has contributed significantly to its global diffusion. In addition to accessibility, pickleball has gained substantial attention because of its potential physical and psychological health benefits. Recreational sport participation has long been associated with improvements in cardiovascular fitness, muscular endurance, balance, coordination and overall physical functioning. Pickleball, as a moderate-intensity physical activity, offers opportunities for individuals to engage in regular movement while simultaneously experiencing enjoyment and social interaction. Existing studies suggest that pickleball participation may improve physical fitness and mobility, particularly among middle-aged and older adults who may face limitations in participating in more physically intensive sports (Cerezuela et al., 2023). Furthermore, sport and exercise participation are widely associated with positive mental health outcomes, including reduced anxiety, lower stress levels, improved mood and enhanced psychological well-being (Lauxtermann et al., 2025).

The importance of mental health promotion through recreational sport has become increasingly relevant in recent years. Following the global COVID-19 pandemic, many societies experienced increased psychological stress, loneliness and reduced social interaction. Recreational sports have therefore become important tools for restoring social connectedness and supporting emotional well-being. Pickleball, in particular is often described as a socially engaging activity that encourages communication, cooperation and interpersonal interaction. Unlike highly individualized forms of exercise, pickleball is commonly played in doubles formats that require teamwork and active social engagement among participants. The relatively informal and welcoming environment of recreational pickleball communities further enhances feelings of inclusion and belonging.

Several previous studies have demonstrated that community sport participation contributes positively to life satisfaction, social well-being and interpersonal relationships (Park et al., 2022; Yu et al., 2022). Recreational sports provide opportunities for individuals to establish friendships, strengthen community ties, and reduce social isolation. These social dimensions are particularly important for older adults, retirees and individuals seeking supportive recreational environments. Ravn et al. (2025) also noted that organized sport participation contributes to psychological and emotional well-being across different life stages with social integration functioning as one of the primary

mechanisms underlying these benefits. Consequently, the social and community aspects of pickleball may represent a major factor influencing public satisfaction with the sport.

Satisfaction itself is considered one of the most important constructs in understanding participation behavior in recreational sport. In the context of sport and leisure studies, satisfaction refers to the degree to which participation experiences meet or exceed individuals' expectations regarding enjoyment, physical outcomes, psychological benefits and social experiences. Participant satisfaction plays a critical role in influencing exercise adherence, future participation intentions and long-term commitment to recreational activities. Jung (2025) reported that participation satisfaction is strongly associated with exercise commitment and continuation intentions, suggesting that individuals who experience positive recreational outcomes are more likely to maintain participation over time. Similarly, Ahn et al. (2025) explained that positive leisure attitudes and satisfaction contribute significantly to continued participation behavior in recreational contexts.

Understanding satisfaction is therefore essential not only for theoretical research but also for practical sport development strategies. High levels of participant satisfaction may encourage word-of-mouth promotion, increase community engagement and support the long-term sustainability of recreational sport programs. Conversely, dissatisfaction related to facilities, safety, accessibility or social experiences may reduce participation continuity and hinder sport development efforts. For emerging recreational sports such as pickleball, examining public satisfaction becomes particularly important because the sport is still expanding into new cultural and geographic contexts.

Another important dimension influencing recreational sport satisfaction involves environmental and infrastructural factors, particularly facility availability and accessibility. Although pickleball is often perceived as a low-cost and flexible activity, the rapid increase in participation has created growing demand for courts, equipment and organized recreational spaces. In many regions, especially outside North America, dedicated pickleball facilities remain limited. Participants often rely on converted tennis or badminton courts which may not fully meet the technical or safety requirements of the sport. Insufficient facility availability may create barriers related to overcrowding, accessibility, scheduling limitations and reduced playing quality.

Research consistently demonstrates that access to community sport facilities is associated with increased physical activity participation and improved well-being outcomes. Yan et al. (2025)

found that community sport facility availability contributes positively to mental health and life satisfaction through enhanced opportunities for physical activity participation. Similarly, Fitri et al. (2022) emphasized the importance of inclusive and accessible sport facility design in supporting wider recreational participation. Zhao et al. (2025) further argued that recreational sport participation is influenced by multiple interacting factors, including personal motivation, social support, environmental accessibility and organizational structures. Therefore, examining facility-related satisfaction in pickleball participation is essential for understanding broader participation experiences across different countries and regions.

Alongside the rapid growth of participation, safety considerations have also become increasingly important in pickleball research. While pickleball is generally categorized as a low-impact recreational sport, epidemiological evidence indicates increasing numbers of pickleball-related injuries, particularly among older adults. Forrester (2020) documented rising emergency department visits associated with pickleball injuries, including fractures, sprains and falls. More recent studies by Cheng et al. (2024) and McMillan et al. (2025) similarly identified increasing hospitalization rates and injury prevalence associated with the sport's expanding popularity. Jeong et al. (2025) further explained that many injuries are related to rapid directional movements, inadequate warm-up procedures or unsuitable playing environments. These findings highlight the importance of proper facility management, safety education and injury prevention strategies in ensuring positive participation experiences and maintaining participant satisfaction.

The development of pickleball has also been influenced by technological innovation and evolving recreational trends. Emerging research examining mixed-reality and virtual sport participation suggests that recreational activities are increasingly integrating digital technologies to enhance engagement and accessibility (Zarei et al., 2025). Technology-based recreational experiences may influence enjoyment, motivation and satisfaction among participants, particularly younger generations who are highly familiar with digital environments. Although traditional face-to-face participation remains dominant in pickleball, these technological developments illustrate the evolving nature of recreational sport participation in contemporary society.

Despite the increasing academic attention devoted to pickleball, existing research remains relatively limited in scope and geographical diversity. Most published studies focus primarily on localized contexts, particularly within the United States and Canada where the sport initially experienced rapid

growth. Existing research has largely emphasized injury epidemiology, physical health outcomes or small-scale community participation experiences. Comparatively fewer studies have examined public satisfaction comprehensively across different cultural and international contexts. Yet, satisfaction with recreational sport participation may vary considerably across countries due to differences in cultural values, recreational traditions, facility infrastructure, economic conditions and levels of sport development.

Cross-national investigation is therefore necessary to better understand how individuals from diverse backgrounds perceive and evaluate their participation experiences in pickleball. Global recreational sport trends increasingly emphasize inclusivity, accessibility and community engagement, making satisfaction an important indicator of successful sport development. Furthermore, examining satisfaction across multiple dimensions may provide valuable insights into which aspects of pickleball are most positively perceived and which areas require improvement.

Based on these considerations, the present study aims to examine global public satisfaction with the sport of pickleball across four major dimensions frequently discussed in recreational sport literature: ease of play, perceived health benefits, social and community value and facility availability. These dimensions were selected because they collectively represent the personal, psychological, social and environmental factors shaping recreational participation experiences. Ease of play reflects the accessibility and simplicity of the sport, perceived health benefits address physical and mental wellness outcomes, social and community value captures interpersonal and communal experiences, while facility availability represents environmental support for participation.

This study is expected to provide several important contributions. First, it contributes to the expanding body of literature concerning emerging recreational sports by presenting large-scale descriptive evidence regarding global public satisfaction with pickleball. Second, the findings may provide useful information for policymakers, sport organizations, recreational managers and community health practitioners seeking to develop inclusive and sustainable recreational sport programs. Third, understanding participant satisfaction may support strategies aimed at increasing physical activity participation and promoting healthier lifestyles within communities. Finally, the study contributes to broader discussions regarding the role of recreational sport in enhancing quality of life, strengthening social cohesion, and promoting holistic well-being in contemporary global society.

As pickleball continues to expand internationally, understanding the factors influencing participant satisfaction becomes increasingly essential for ensuring sustainable sport development and positive recreational experiences. Recreational sport is no longer viewed merely as entertainment or competition but rather as an important instrument for improving physical health, psychological well-being and community connectedness. Therefore, investigating global public satisfaction with pickleball offers meaningful theoretical and practical implications for the fields of sport science, recreational studies, public health and community development.

2. Literature Review

2.1. Definition and Development of Pickleball

Pickleball is a paddle-based recreational sport that combines elements of tennis, badminton and table tennis. The game is played using solid paddles and a perforated plastic ball on a smaller court that resembles a badminton court with modified rules adapted from tennis. Since its creation in the United States during the 1960s, pickleball has evolved from a backyard family activity into one of the fastest-growing recreational sports in the world. The rapid international expansion of pickleball has attracted increasing scholarly attention because the sport reflects contemporary recreational trends emphasizing accessibility, inclusivity, social interaction and health-oriented participation (Stroesser et al., 2024).

One of the most distinctive characteristics of pickleball is its accessibility across age groups and skill levels. Unlike many competitive sports that require extensive physical conditioning or highly specialized technical skills, pickleball is generally considered easy to learn and adaptable to varying physical abilities. The smaller court dimensions reduce excessive physical exertion while maintaining active movement and engagement. Consequently, the sport is increasingly popular among children, adults and older populations alike. Cerezuela et al. (2023) explained that the simplified gameplay and moderate physical intensity contribute significantly to the sport's growing appeal among recreational participants.

Recent studies also indicate that pickleball participation has expanded rapidly due to broader societal changes in recreational behavior. Contemporary recreational trends demonstrate increasing public preference for physical activities that are enjoyable, socially interactive, time-efficient and less physically intimidating compared with traditional competitive sports (Ravn et al., 2025). In this regard, pickleball aligns closely with modern recreational needs because it provides opportunities for exercise, leisure and socialization

simultaneously. Moreover, the sport can be played in indoor and outdoor settings, allowing greater flexibility for communities with varying environmental and infrastructural conditions.

The globalization of pickleball has accelerated particularly after the COVID-19 pandemic. During and after the pandemic period, many individuals sought recreational activities that could support physical health while also facilitating safe social interaction. Pickleball emerged as an attractive option because it allowed participants to maintain physical distancing more easily than certain contact sports while still promoting interpersonal engagement. As a result, pickleball participation increased substantially in North America, Europe, Asia and Australia. Recent participation reports and scholarly reviews have confirmed that pickleball is no longer limited to North American recreational culture but has become an internationally recognized sport with expanding global communities (Stroesser et al., 2024; Özsarı et al., 2026).

The rapid development of pickleball has also encouraged institutional involvement from local governments, schools, universities, and sport organizations. Many countries have begun integrating pickleball into school physical education programs, senior wellness initiatives, and community recreation projects. This institutional support further contributes to participation growth and public awareness. Consequently, understanding participant experiences and satisfaction becomes increasingly important because sustained sport development depends not only on participation rates but also on the quality of participant experiences and long-term engagement.

2.2. Public Satisfaction in Recreational Sport Participation

Public satisfaction represents a central concept in recreational sport and leisure studies because it reflects the extent to which participation experiences fulfill individuals' expectations, needs and motivations. In recreational sport contexts, satisfaction generally encompasses physical enjoyment, psychological fulfillment, social interaction, environmental comfort and perceived personal benefits. Satisfaction is particularly important because it influences exercise adherence, repeat participation, long-term commitment and positive word-of-mouth communication among participants (Jung, 2025).

Theoretical perspectives in leisure and recreational studies suggest that satisfaction emerges when individuals perceive a positive balance between expectations and actual experiences. When participants feel that recreational activities provide meaningful physical, emotional and social outcomes,

they are more likely to continue participating over extended periods. Conversely, dissatisfaction may reduce motivation and increase withdrawal from recreational programs. Ahn et al. (2025) explained that leisure satisfaction significantly contributes to long-term recreational engagement because positive emotional experiences reinforce intrinsic motivation and personal enjoyment.

Recent developments in sport psychology and leisure research have expanded the conceptualization of satisfaction beyond simple enjoyment. Contemporary studies emphasize multidimensional satisfaction frameworks that include perceived competence, social belonging, physical wellness, environmental quality, accessibility, and emotional fulfillment (Pi et al., 2022). These multidimensional perspectives are particularly relevant for emerging recreational sports such as pickleball because participant experiences are shaped not only by gameplay but also by community atmosphere, facility conditions, organizational support and interpersonal interaction.

Several recent studies have confirmed the relationship between satisfaction and exercise commitment. Jung (2025) found that recreational sport satisfaction strongly predicts exercise adherence and future participation intentions. Similarly, Ruiz et al. (2025) developed recreational sport well-being measurement tools demonstrating that participant satisfaction is closely associated with perceived quality of life, psychological wellness and social engagement. These findings indicate that satisfaction functions not only as an outcome variable but also as an important mechanism supporting sustainable recreational participation.

In addition, public satisfaction in sport participation is increasingly connected with broader quality-of-life indicators. Recreational activities are now widely recognized as contributors to subjective well-being, happiness and life satisfaction. Yu et al. (2022) reported that community sport participation positively influences social well-being and emotional health, particularly among urban populations experiencing social stress and isolation. Similarly, Park et al. (2022) demonstrated that participation in recreational sport contributes positively to life satisfaction through increased social connectedness and improved mental health.

The relevance of satisfaction becomes even more important in emerging recreational sports because participant retention is critical for long-term development. As pickleball continues to expand internationally, understanding the dimensions contributing to participant satisfaction may help policymakers, sport managers and community organizations design more inclusive and sustainable recreational programs. Satisfaction data may also

assist in identifying barriers limiting participation experiences, including inadequate facilities, safety concerns or insufficient community support.

2.3. Global Trends in Recreational Sport Participation

Global recreational sport participation has undergone substantial transformation over the past decade. Traditional competitive sport structures are increasingly complemented by recreational and wellness-oriented activities emphasizing enjoyment, flexibility, accessibility and social interaction. This transformation reflects broader societal shifts toward health-conscious lifestyles, work-life balance and community-oriented leisure practices.

Contemporary recreational participation trends indicate that individuals increasingly prefer activities that combine physical exercise with social and psychological benefits. Zhao et al. (2025) explained that recreational participation is shaped by multiple interconnected factors, including personal motivation, social environment, accessibility, economic conditions, and facility availability. Multi-level participation models suggest that recreational sport engagement is influenced not only by individual interest but also by environmental opportunities and community support systems.

One important trend influencing recreational sport participation is the increasing emphasis on inclusive and intergenerational activities. Modern recreational programs increasingly seek to accommodate diverse age groups, genders and physical abilities. Pickleball aligns strongly with these inclusive recreational trends because it can be played recreationally by children, adults and elderly participants within the same social environment. This inclusivity differentiates pickleball from more physically intensive or highly competitive sports that may exclude certain populations.

Another major trend involves the growing recognition of recreational sport as a tool for promoting mental health and social well-being. Research consistently demonstrates positive associations between physical activity participation and psychological outcomes such as reduced stress, improved mood, enhanced self-esteem and greater life satisfaction (Lauxtermann et al., 2025). Following the COVID-19 pandemic, recreational activities gained additional importance as mechanisms for restoring social interaction and emotional stability. Ravn et al. (2025) emphasized that organized recreational sport contributes significantly to social integration and psychological resilience across different demographic groups.

Digital transformation and technological innovation also influence contemporary recreational sport trends. Emerging technologies such as virtual

reality, mixed-reality sports, wearable fitness devices and online sport communities are reshaping participation experiences. Zarei et al. (2025) examined differences between mixed-reality and real-world pickleball experiences, demonstrating that technological integration may influence participant enjoyment and engagement. These findings suggest that recreational sport participation is increasingly evolving within both physical and digital environments.

Globalization has further contributed to the international spread of recreational sports. Social media platforms, digital communication and international sporting events facilitate rapid dissemination of recreational trends across countries and cultures. Pickleball's global growth illustrates how recreational innovations can quickly gain popularity when they align with contemporary societal preferences emphasizing accessibility, health, and social interaction.

Despite these positive trends, recreational sport participation remains influenced by inequalities related to infrastructure, accessibility and economic resources. In many regions, limited facility availability and insufficient organizational support continue to constrain participation opportunities. Consequently, understanding participant satisfaction requires consideration of environmental and structural conditions shaping recreational experiences.

2.4. Health Benefits and Psychological Impacts of Pickleball

One of the primary reasons underlying the global popularity of pickleball is its perceived contribution to physical and psychological health. Recreational sport participation is widely recognized as an important strategy for improving physical fitness and preventing lifestyle-related diseases. Pickleball, as a moderate-intensity physical activity, provides opportunities for cardiovascular exercise, muscular coordination, balance training and mobility enhancement.

Existing evidence suggests that pickleball participation may positively influence physical health outcomes, particularly among middle-aged and older adults. Cerezuela et al. (2023) reported that pickleball participation contributes to increased physical activity levels while maintaining relatively low physical strain compared with other racket sports. The smaller playing area and moderate movement intensity allow participants to remain active without excessive physiological stress, making the sport particularly attractive for aging populations.

In addition to physical health benefits, pickleball participation is increasingly associated with psychological well-being. Physical activity is

consistently linked with reductions in anxiety, depression and psychological stress, while simultaneously improving mood and emotional regulation. Lauxtermann et al. (2025) concluded that participation in sport and exercise contributes positively to mental health and subjective well-being across different populations.

The social nature of pickleball further strengthens its psychological benefits. Recreational sport environments provide opportunities for interpersonal interaction, friendship formation and community engagement. Park et al. (2022) found that community sport participation contributes positively to life satisfaction because it promotes social connectedness and emotional support. Similarly, Yu et al. (2022) demonstrated that recreational engagement reduces feelings of loneliness and social isolation, particularly among older adults.

Pickleball is often described as fostering welcoming and supportive social environments that encourage communication and teamwork. The doubles-oriented structure of the game facilitates interaction among participants, while the relatively informal recreational atmosphere promotes inclusivity and friendship development. Consequently, many participants may experience satisfaction not only from physical activity but also from the social relationships formed through participation.

However, the health impacts of pickleball are not exclusively positive. The rapid increase in participation has also generated concerns regarding injury prevalence and participant safety. Epidemiological studies report increasing emergency department visits associated with pickleball-related injuries, particularly fractures, sprains and falls among older adults (Forrester, 2020; Cheng et al., 2024). McMillan et al. (2025) similarly identified growing hospitalization rates associated with recreational pickleball participation.

Jeong et al. (2025) emphasized that injury risks may be influenced by inadequate facility conditions, insufficient warm-up procedures, improper footwear and lack of participant education regarding movement techniques. These findings indicate that safety management and facility quality are important dimensions influencing overall participation experiences and satisfaction. Therefore, recreational sport development strategies must balance promotion of participation growth with effective injury prevention and safety management initiatives.

2.5. Facility Availability and Environmental Support in Recreational Sport

Environmental and infrastructural factors play an essential role in shaping recreational sport

participation experiences. Facility availability, accessibility and quality significantly influence individuals' opportunities to participate conveniently and safely in recreational activities. In the context of pickleball, the increasing popularity of the sport has created growing demand for courts, equipment and organized recreational spaces.

Yan et al. (2025) demonstrated that community sport facility availability contributes positively to mental health and life satisfaction by facilitating greater physical activity participation. Accessible facilities reduce participation barriers and encourage more consistent recreational engagement. Similarly, Fitri et al. (2022) highlighted the importance of inclusive facility design in supporting broader participation across diverse demographic groups, including elderly populations and individuals with physical limitations.

Despite the relatively simple facility requirements of pickleball, infrastructure challenges remain significant in many regions. Outside North America, dedicated pickleball courts are still limited and participants frequently rely on converted tennis or badminton facilities. Such limitations may affect playing quality, scheduling availability, safety and overall participant satisfaction. Environmental support therefore represents a crucial determinant of sustainable pickleball development.

Contemporary recreational participation models further emphasize the interaction between environmental accessibility and personal motivation. Elmose-Østerlund et al. (2023) explained that participation decisions are influenced by negotiation processes involving perceived opportunities, constraints and social support systems. Ntovoli et al. (2026) similarly emphasized that continued recreational participation depends on participants' ability to overcome structural and environmental barriers.

Consequently, facility availability and environmental quality are not merely technical considerations but essential components influencing satisfaction, participation continuity and overall recreational experiences. As pickleball continues expanding globally, investment in accessible, safe and inclusive facilities will likely become increasingly important for sustaining participation growth and enhancing public satisfaction with the sport.

3. Methods

3.1. Study Design

This study employed a descriptive quantitative research design using a cross-sectional online survey approach to examine global public satisfaction with the sport of pickleball. Quantitative descriptive research is widely utilized in sport and recreational studies because it enables researchers to

systematically measure attitudes, perceptions and satisfaction levels across large populations using standardized instruments (Creswell & Creswell, 2018). The cross-sectional design was considered appropriate because the study aimed to obtain a broad snapshot of participant satisfaction at a single point in time rather than examining behavioral changes longitudinally.

The use of an online survey method was particularly suitable for this study due to the international scope of the research and the geographically dispersed nature of pickleball communities. Online surveys allow researchers to collect data efficiently from respondents across multiple countries and regions while reducing time, logistical barriers and research costs. In addition, online data collection has become increasingly common in recreational sport and public health research because it facilitates access to large and diverse participant groups (Evans & Mathur, 2018). Given the rapid global expansion of pickleball communities and the widespread use of digital communication platforms among recreational sport participants, the online approach enabled broader participation from individuals actively involved in pickleball activities.

The study focused on measuring participants' levels of satisfaction regarding four major dimensions commonly discussed in recreational sport literature: (1) Ease of play, (2) Perceived health benefits, (3) Social and community aspects and (4) Facility availability. These dimensions were selected based on previous theoretical and empirical studies indicating that recreational sport satisfaction is influenced by personal, social, psychological and environmental factors (Jung, 2025; Zhao et al., 2025; Ruiz et al., 2025). The research design was intended to provide a comprehensive descriptive overview of how pickleball participants from different global regions perceive their participation experiences.

The cross-sectional nature of the study also allowed for the identification of general participation trends and satisfaction patterns across multiple demographic and geographic contexts. Because pickleball continues to expand internationally, obtaining current descriptive data regarding participant experiences is important for supporting future sport development initiatives, recreational policy planning, and community-based programming. Furthermore, the descriptive quantitative approach enabled the generation of empirical evidence that may serve as a foundation for future comparative, correlational, or longitudinal studies examining pickleball participation and recreational sport satisfaction.

3.2. Participants and Sampling

The target population of this study consisted of active pickleball players from four major global

regions where pickleball participation has demonstrated substantial growth: North America, Europe, Asia and Australia. These regions were selected because they represent areas with increasing pickleball visibility, organized recreational participation and emerging sport development initiatives. North America was included as the largest and most established pickleball market globally while Europe, Asia and Australia were selected to represent the expanding international diffusion of the sport.

A total of 2,000 respondents successfully completed the survey and were included in the final analysis. The regional distribution of respondents consisted of North America (40%), Europe (25%), Asia (20%) and Australia (15%). This distribution was intended to reflect the relative participation growth and accessibility of pickleball communities within each region while ensuring representation from diverse cultural and recreational contexts.

The study employed a non-probability sampling technique specifically purposive and convenience sampling. Purposive sampling was used because participants were required to meet specific inclusion criteria relevant to the objectives of the study. Respondents were eligible to participate if they: (1) were at least 18 years old, (2) had participated in pickleball activities regularly within the previous six months, and (3) voluntarily agreed to complete the online questionnaire. Individuals who had no prior experience playing pickleball or submitted incomplete responses were excluded from the analysis.

Convenience sampling was utilized due to the practical challenges associated with accessing international recreational sport populations. Survey distribution was conducted through online pickleball communities, social media groups, recreational sport forums, local pickleball club and digital communication platforms commonly used by pickleball participants. Several online communities and recreational organizations assisted in disseminating the survey link to potential respondents across different regions.

The use of large-scale online recruitment was considered appropriate because pickleball communities are highly active within digital and social media environments. Previous recreational sport research has demonstrated that online communities represent effective channels for accessing geographically dispersed participants involved in emerging recreational activities (Evans & Mathur, 2018). Furthermore, the large sample size enhanced the representativeness and stability of descriptive statistical findings.

Demographic information was also collected to provide contextual understanding of participant characteristics. Variables included age, gender,

region of residence, participation frequency and duration of involvement in pickleball activities. Collecting demographic information enabled the researchers to describe the diversity of the sample and better contextualize participant satisfaction levels across recreational backgrounds.

Prior to participation, respondents were informed about the purpose of the study, voluntary participation procedures, confidentiality assurances and estimated completion time. Ethical considerations were carefully maintained throughout the research process. Participants provided informed consent electronically before accessing the questionnaire. No personally identifiable information was collected and all responses were analyzed anonymously to ensure participant privacy and data confidentiality.

3.3. Instrument

Data collection was conducted using a structured online questionnaire specifically designed to measure public satisfaction with pickleball participation. The instrument was developed based on relevant literature concerning recreational sport participation, leisure satisfaction, sport well-being and community-based physical activity (Pi et al., 2022; Jung, 2025; Ruiz et al., 2025). The questionnaire aimed to capture participants' perceptions and experiences regarding key dimensions influencing satisfaction in recreational sport settings.

The survey instrument consisted of 15 closed-ended items measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The Likert scale format was selected because it is widely used in social science and recreational sport research to measure attitudes, perceptions and satisfaction levels systematically and reliably. The scale also allows respondents to express varying degrees of agreement with each statement, thereby providing more nuanced information regarding participant perceptions. The questionnaire was organized into four primary domains:

1. Ease of Play (4 items)

This domain measured participants' perceptions regarding the accessibility, simplicity and ease of learning pickleball. Example items included statements related to rule simplicity, ease of skill acquisition, physical manageability and suitability for various age groups.

2. Perceived Health Benefits (4 items)

This domain assessed participants' perceptions of the physical and psychological health benefits associated with pickleball participation. Items addressed aspects such as physical fitness improvement, stress reduction, mental well-being and encouragement of active lifestyles.

3. Social and Community Aspects (4 items)

This section evaluated participants' experiences related to social interaction, community engagement, friendship development and feelings of belonging within pickleball environments. The domain was included because previous studies emphasize the importance of social integration in recreational sport satisfaction (Park et al., 2022; Yu et al., 2022).

4. Facility Availability (3 items)

This domain measured participants' perceptions regarding the accessibility, adequacy and quality of pickleball facilities within their communities. Items included availability of courts, convenience of access and satisfaction with facility conditions.

To ensure content validity, the questionnaire items were reviewed by experts in sport science, recreational studies and survey methodology. Minor revisions were made to improve clarity, readability and relevance to international recreational sport contexts. A pilot test involving 50 recreational pickleball participants was conducted prior to the main data collection process to evaluate item clarity, survey structure and response consistency. Feedback from the pilot participants was used to refine wording and improve the overall comprehensibility of the instrument.

Reliability analysis was also conducted to assess the internal consistency of the instrument. Cronbach's alpha coefficients for the four domains exceeded the commonly accepted threshold of 0.70, indicating satisfactory reliability for measuring participant satisfaction dimensions. These findings suggested that the questionnaire items consistently measured the intended constructs and were appropriate for large-scale data collection.

Because the study involved international respondents, the questionnaire was designed using simple and universally understandable English terminology to minimize interpretation bias across different cultural backgrounds. The online survey platform was optimized for accessibility across mobile devices, tablets, and desktop computers to encourage higher response participation.

3.4. Data Analysis

The collected data were analyzed using descriptive statistical techniques to provide a comprehensive overview of public satisfaction with pickleball participation across the four measured domains. Descriptive analysis was selected because the primary objective of the study was to summarize participant perceptions and identify general satisfaction trends rather than test causal relationships or experimental effects.

Prior to analysis, the dataset underwent data cleaning procedures to identify incomplete responses, duplicate submissions, and potential inconsistencies. Responses containing substantial

missing data were excluded from the final analysis to ensure data accuracy and reliability. The remaining valid responses were coded and processed using statistical analysis software.

The primary statistical procedures included calculation of means, standard deviations, frequencies and percentage distributions for each questionnaire item and satisfaction domain. Mean scores were used to determine the overall level of participant satisfaction across the four measured dimensions while standard deviations were calculated to assess response variability and distribution consistency.

Frequency distributions and percentages were additionally used to summarize demographic characteristics such as age, gender, regional representation, participation frequency and duration of pickleball involvement. These descriptive statistics provided contextual information regarding

the composition of the study sample and allowed for clearer interpretation of satisfaction patterns.

To facilitate interpretation, mean scores were categorized according to satisfaction levels where higher mean values indicated greater participant agreement and satisfaction with specific aspects of pickleball participation. Comparative descriptive analysis was also conducted across the four domains to identify which aspects of pickleball generated the highest and lowest levels of satisfaction among respondents.

The findings were subsequently presented using tables and narrative explanations to enhance clarity and readability. The use of descriptive statistical analysis was considered appropriate because it enabled the researchers to provide a broad empirical overview of global public satisfaction with pickleball while generating foundational data for future analytical and comparative research in recreational sport studies.

4. Results

4.1. Domain-Level Descriptive Statistics

Table 1. Ease of play indicators (n = 2,000).

Indicator	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	SD
Rules are easy to learn	0.5	1.5	6.0	38.0	54.0	4.44	0.71
Playable across all ages	0.3	0.8	5.4	35.6	57.9	4.50	0.66
Low skill needed	0.7	1.8	4.8	37.2	55.5	4.45	0.70
Overall average						4.63	0.49

Table 1 presents respondents' perceptions regarding the accessibility and ease of playing pickleball. Overall, this domain obtained the highest average score (M = 4.63; SD = 0.49), indicating a very high level of agreement that pickleball is easy to learn and accessible for various age groups.

The indicator "playable across all ages" achieved the highest mean score (M = 4.50; SD = 0.66), followed closely by "low skill needed" (M = 4.45; SD = 0.70) and "rules are easy to learn" (M = 4.44; SD = 0.71).

More than 90% of respondents agreed or strongly agreed with all indicators in this domain. These findings suggest that pickleball is widely perceived as an inclusive recreational sport with low participation barriers and simple gameplay mechanics.

Overall, 94% of respondents agreed or strongly agreed that pickleball is easy to play, indicating very high perceived accessibility and usability among participants from different regions.

Table 2. Health benefit indicators (n = 2,000).

Indicator	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	SD
Improves physical fitness	0.9	2.4	11.1	48.0	37.6	4.19	0.78
Weight control	1.5	3.3	16.2	45.9	33.1	4.06	0.83
Stress reduction and mood	0.8	2.0	8.0	50.2	39.0	4.25	0.74
Overall average						4.17	0.78

Table 2 summarizes respondents' perceptions regarding the health benefits of pickleball participation. The overall mean score for this domain was high (M = 4.17; SD = 0.78), indicating that respondents generally perceive pickleball as beneficial for both physical and psychological well-being.

The highest-rated indicator was "stress reduction and mood" (M = 4.25; SD = 0.74), followed by

"improves physical fitness" (M = 4.19; SD = 0.78). Meanwhile, "weight control" received a slightly lower but still positive score (M = 4.06; SD = 0.83). These findings indicate that participants associate pickleball with active lifestyles, emotional relaxation, and improved fitness.

Overall, 86% of respondents perceived positive physical and mental health benefits from participating in pickleball, reinforcing the role of

recreational sport in supporting healthier lifestyles and emotional well-being.

Table 3. Social and community indicators (n = 2,000).

Indicator	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	SD
Social interaction	0.4	1.2	5.3	40.8	52.3	4.44	0.69
Community bonding	0.5	1.0	5.9	41.1	51.5	4.43	0.67
Making new friends	0.7	2.0	6.7	40.0	50.6	4.39	0.73
Overall average						4.48	0.53

Table 3 presents descriptive statistics related to the social and community dimensions of pickleball participation. This domain achieved a very high overall mean score (M = 4.48; SD = 0.53), demonstrating that respondents strongly value the social experiences associated with the sport.

The indicator "social interaction" produced the highest score (M = 4.44; SD = 0.69), followed closely by "community bonding" (M = 4.43; SD = 0.67) and

"making new friends" (M = 4.39; SD = 0.73). The findings suggest that pickleball not only functions as a physical activity but also serves as a platform for building friendships, strengthening social networks, and encouraging community engagement.

Overall, 93% of respondents agreed or strongly agreed that pickleball strengthens social relationships and promotes positive community interaction among players.

Table 4. Facility availability indicators (n = 2,000).

Indicator	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	SD
Court accessibility	4.6	10.3	25.7	36.9	22.5	3.63	1.06
Equipment availability	3.1	9.9	23.0	38.1	25.9	3.74	0.99
Government/club support	5.0	12.2	21.8	35.0	26.0	3.73	1.07
Overall average						3.83	0.77

Table 4 shows respondents' perceptions regarding the availability of facilities and organizational support for pickleball participation. Compared with other domains, facility availability received the lowest overall average score (M = 3.83; SD = 0.77), although it still remained within the high category. Among the indicators, "equipment availability" achieved the highest mean score (M = 3.74; SD = 0.99), while "court accessibility" received the lowest score (M = 3.63; SD = 1.06). In addition, "government/club support" showed moderate

positive perceptions (M = 3.73; SD = 1.07). These findings indicate that although participants generally perceive pickleball positively, access to courts and infrastructure remains limited in several regions.

Approximately 37% of respondents indicated that pickleball courts are still difficult to access, suggesting that infrastructure development and facility expansion remain important challenges for future sport growth.

Table 5. Overall satisfaction indicators (n = 2,000).

Indicator	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	SD
Satisfied with pickleball	0.8	1.4	8.5	47.2	42.1	4.29	0.73
Intend to continue	0.6	1.0	6.9	43.0	48.5	4.38	0.69
Recommend to others	0.9	1.6	7.3	46.5	43.7	4.30	0.72
Overall average						4.30	0.61

Table 5 presents respondents' overall satisfaction with pickleball participation. The overall average score was high (M = 4.30; SD = 0.61), indicating strong positive perceptions toward the sport.

The highest-rated indicator was "intend to continue" (M = 4.38; SD = 0.69), followed by "recommend to others" (M = 4.30; SD = 0.72) and "satisfied with pickleball" (M = 4.29; SD = 0.73). These findings

demonstrate that participants not only enjoy playing pickleball but also show strong loyalty and willingness to promote the sport to others.

Overall, approximately 90% of respondents reported being satisfied and expressed intentions to continue playing pickleball in the future, indicating high participant commitment and long-term engagement.

4.2. Summary Across Domains

Table 6. Summary statistics by domain (n = 2,000).

Aspect	Mean (M)	SD	Category
Ease of play	4.63	0.49	Very high
Health benefits	4.17	0.78	High
Social and community	4.48	0.53	Very high
Facility availability	3.83	0.77	High
Overall satisfaction	4.30	0.61	High

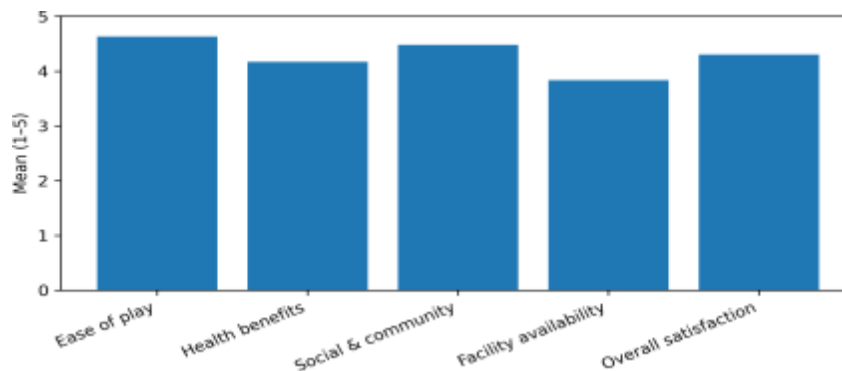


Figure 1. Mean satisfaction score by domain (1-5 scale).

Table 6 summarizes the mean scores across all measured domains. Ease of play recorded the highest average score (M = 4.63; SD = 0.49), followed by social and community aspects (M = 4.48; SD = 0.53), overall satisfaction (M = 4.30; SD = 0.61), and health benefits (M = 4.17; SD = 0.78). Facility availability obtained the lowest score (M = 3.83; SD = 0.77), although it remained within the high category.

These results indicate that pickleball is strongly valued for its accessibility, social interaction, and enjoyable participation experience. However, the comparatively lower facility scores suggest that infrastructure and access remain important areas requiring improvement to support continued global growth of the sport.

5. Discussion

The findings indicate that ease of play and social value are the strongest contributors to positive evaluations of pickleball. The very high ratings for accessibility support previous research emphasizing that pickleball has low participation barriers, simple rules, and inclusive gameplay suitable for various age groups and skill levels (Stroesser et al., 2024; Cerezuela et al., 2023).

The strong social and community ratings also suggest that pickleball functions as more than a recreational activity. Participants perceived the sport as an effective medium for social interaction, friendship development, and community bonding. These findings are consistent with earlier studies highlighting the important role of recreational sport

in enhancing social connectedness and psychological well-being (Park et al., 2022; Yu et al., 2022).

In addition, respondents reported positive perceptions regarding physical fitness, stress reduction, and emotional well-being. This supports previous evidence demonstrating that recreational sport participation contributes positively to both physical and mental health outcomes (Lauxtermann et al., 2025).

However, facility availability received comparatively lower ratings than the other domains, indicating that infrastructure and access remain important constraints in several regions. Limited court accessibility and inconsistent organizational support may reduce participation opportunities despite the growing popularity of the sport. This finding aligns with previous research emphasizing that facilities, equipment, and environmental support strongly influence recreational sport participation (Gordon & Ellis, 2024; Yan et al., 2025). Overall, the results reinforce the view that pickleball functions not only as a form of physical activity but also as a social platform capable of promoting community engagement, well-being, and long-term recreational participation (Williams et al., 2025; Zhang et al., 2023).

6. Conclusion And Recommendations

The findings of this study demonstrate that global public satisfaction with pickleball is consistently high with an overall mean score of 4.30 (SD = 0.61). The results indicate that pickleball is widely perceived as an accessible, enjoyable, and socially engaging recreational sport. Among the evaluated

domains, ease of play ($M = 4.63$) emerged as the highest-rated aspect, followed by social and community aspects ($M = 4.48$). These findings suggest that the simplicity of the game, low participation barriers, and inclusive nature of pickleball are major factors contributing to its growing international popularity. In addition, the strong social ratings confirm that pickleball functions not only as a physical activity but also as a platform for strengthening interpersonal relationships, community interaction, and social connectedness among participants.

The health benefits domain also received positive evaluations, indicating that participants perceive pickleball as beneficial for improving physical fitness, reducing stress, and supporting emotional well-being. These findings reinforce the growing recognition of recreational sport as an important contributor to healthy lifestyles and public well-being.

However, facility availability received the lowest mean score ($M = 3.83$), indicating that infrastructure and accessibility remain important challenges in several regions. Limited court availability, uneven organizational support, and restricted access to facilities may hinder participation opportunities despite the increasing popularity of the sport. This suggests that the rapid growth of pickleball participation has not yet been fully matched by adequate infrastructure development in some communities.

Based on these findings, several practical recommendations can be proposed. First, governments, sport organizations, and local communities should prioritize the expansion of accessible public pickleball courts and recreational facilities to support increasing participation demand. Second, community-based pickleball programs and social events should be encouraged to further strengthen social interaction, inclusivity, and long-term participant engagement. Third, educational initiatives related to safety, injury prevention, and recreational participation management should also be considered to enhance participant experiences.

Finally, future research is recommended to move beyond descriptive analysis by applying inferential statistical approaches such as regression analysis, path analysis, or structural equation modeling (SEM) to examine the determinants of satisfaction and participation continuity more comprehensively. Comparative studies across countries, age groups, or participation levels may also provide deeper insights into the global development of pickleball as an emerging recreational sport.

7. Limitations And Future Research

This study used a cross-sectional online survey and descriptive analyses; causal inferences cannot be drawn. The sample composition by region reflects the proportions specified in the survey and may not represent all pickleball participants worldwide. Future research should employ probabilistic sampling where feasible, include additional regions, and test explanatory models linking satisfaction domains to continued participation and health outcomes.

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