

Futsal and Subjective Wellbeing of Athletes with Intellectual Impairments in Bamenda and Yaoundé, Cameroon

Dohbobga Macias Nwana Dinga^{*1}, MIBO'O Pascale², Menang Magdaline Binue³

¹Department of Physical Education and Animation, University of Bamenda, Cameroon.

²Department of Biology and Physical Activity, National Institute of Youth and Sports, Yaounde.

<https://ORCID.org/0000-0002-1927-1228>

³Department of Physical Education and Animation, University of Bamenda, Cameroon.

<https://orcid.org/0009-0007-0054-922X>

Corresponding Author:

Dohbobga Macias Nwana Dinga

Department of Physical Education and Animation, University of Bamenda, Cameroon.

ABSTRACT

Practicing futsal, a dynamic indoor soccer variant, promotes physical activity and social engagement, but its impact on the subjective well-being among athletes with impairments in resource-limited settings remains underexplored. This study examined the influence of futsal participation on the subjective well-being of players with physical impairments in Bamenda and Yaoundé, Cameroon. A purposive sample of 36 athletes with impairments who participate in futsal was recruited from Bamenda and Yaoundé. Using a quantitative survey approach, data were collected via the Physical Activity Scale for Individuals with Physical Disabilities (PASIPD) and the Satisfaction with Life Scale (SWLS). Descriptive statistics showed moderate futsal participation ($M = 15.49$, $SD = 3.32$) and above-average well-being ($M = 20.45$, $SD = 3.41$). Regression analysis revealed a weak but significant positive correlation ($R^2 = .053$, $p = .007$) between futsal participation and well-being, explaining 5.3% of the variance. Athletes reported high levels of joy (87.0%) and a strong focus on their abilities (80.1%), but low confidence in their technical skills (26.7%) and sense of team belonging (32.6%), highlighting barriers such as inadequate coaching, limited facilities, and socio-cultural stigma. The study also emphasized the role of futsal in fostering energy, friendships, and a sense of purpose, despite infrastructural challenges. The findings confirm that futsal enhances subjective well-being, particularly through positive affect and personal growth, thereby rejecting the null hypothesis. This study underscores futsal's potential to improve subjective well-being among athletes with impairments by fostering joy, purpose, and social bonds. However, its modest effect size highlights the need for improved coaching, accessible infrastructure, and stigma reduction to maximize these benefits. These insights can guide inclusive team sports programs in resource-constrained settings.

Keywords:

Team Sports, Impairment, Futsal, Subjective wellbeing, Cameroon, Sports.

Introduction

Futsal is a fast-paced, small-sided indoor soccer variant played with teams of five players using a smaller, heavier ball to emphasize skill, control, and teamwork on a compact court (Moore, 2015). Originating in 1930 in Uruguay, futsal spread across Latin America and Europe by the 1950s, with international governance falling under FIFA in 1989. The practice of team sports is not only focused on high performance and winning but also provides psychological and social benefits for athletes with impairments (Mira et al., 2023). Studies in countries like Brazil and Portugal highlight the benefits of futsal for physical fitness and social cohesion, as well as challenges such as limited grassroots awareness and accessibility (Altmann & dos Reis, 2013; Travassos et al., 2013). Futsal offers multiple benefits for athletes with impairments, including enhanced physical fitness through coordinated activity, improved psychological resilience via shared achievement, and strengthened social bonds through collaboration (Eime et al., 2013). Being a team sport, it is a tool that promotes health, quality of life, and social integration, offering benefits for people with disabilities, particularly in self-confidence (Blauwet & Willick, 2012). This sport provides a sense of belonging and identity, countering the social exclusion often experienced in settings like Cameroon, where structural and attitudinal barriers persist (Hanass-Hancock & McKenzie, 2017). By fostering interdependence, futsal empowers participants to transcend physical limitations, enhancing their overall well-being. It is a sporting activity that involves a group of individuals, divided into teams, working together to reach their ultimate goals. These goals include winning a match, improving physical fitness, and more. Futsal can enhance cardiovascular health, agility, and overall fitness, which are particularly beneficial to persons with impairments. Futsal contributes to developing mental well-being; participation in the sport can boost self-esteem, reduce stress, and improve social interaction, thereby contributing to enhanced mental well-being (Travassos et al., 2013). Some studies have shown a positive relationship between the practice of team sports and an increase in the level of well-being, and this includes subjective well-being and self-contentment (Downward & Rasciute, 2011). People with motor disabilities who practice sports have higher life satisfaction compared to people with motor disabilities who do not practice sports (Yazicioglu et al., 2020). Team sports-related well-being can be conceived as an interplay of satisfaction with life, sports experiences, and perceived health, combined with experienced enjoyment and happiness in both ordinary life and sports (Lundqvist & Sandin, 2014). It is therefore likely that futsal could foster physical health, social integration, and psychological resilience by encouraging collective effort, skill development, and interpersonal connections. For individuals with disabilities, team sports provide opportunities to enhance self-confidence, independence, and personal growth through structured social and physical activities (Blauwet & Willick, 2012). Considering that specific studies in the domain of futsal are limited in these particular areas, the researcher focused the study on this region to explore the link between futsal and the life satisfaction of athletes with impairments. In Bamenda and Yaoundé, which are two important cities in Cameroon, futsal is a major team sport that holds potential and is accessible for athletes with impairments due to its adaptability. However, participation is constrained by societal stigma, inadequate sports facilities, and limited access to coaching tailored for adaptive sports, which may hinder the psychosocial benefits typically associated with team sports. The unique socio-cultural and economic challenges in these regions, such as negative community attitudes toward disability, further complicate athletes' engagement in futsal (Ticha et al., 2022). While team sports are known to promote subjective well-being—defined as an individual's cognitive and affective evaluation of their life—there is insufficient empirical evidence on how futsal specifically influences the subjective well-being of athletes with impairments in Cameroon. The development of futsal for athletes with intellectual impairments is of particular interest, yet it remains underexplored. While studies on futsal exist in countries like Australia, China, Cuba, Brazil, and Portugal (Travassos et al., 2013), evidence specific to Cameroon or intellectual impairment contexts is scarce. Existing disability sports research often focuses on Paralympic disciplines or Western contexts, leaving a



gap in understanding futsal's role in resource-constrained towns like Bamenda and Yaoundé. This study addresses this gap by examining the relationship between futsal participation and subjective well-being among athletes with impairments in Bamenda and Yaoundé. Team sports are physical activities involving coordinated groups of participants working toward a common goal, typically governed by structured rules and emphasizing collaboration over individual performance (Eime et al., 2013). Unlike solo sports, team sports require interdependence, communication, and collective strategy, fostering social bonds and shared achievement (Carron et al., 2005). For athletes with impairments, team sports such as wheelchair basketball, amputee football, futsal, and goalball are adapted to accommodate diverse physical capabilities, promoting inclusion and empowerment (Martin et al., 2017). It has been observed that participation in team sports is associated with improved quality of life, reduced psychological distress, and increased social capital (Frank et al., 2012). This should be the case within collectivist cultures like Cameroon's, where community bonds, solidarity, collaboration, and cooperation are core values of the people that could promote the social and mental health of those with impairments. Futsal is an indoor team sport that is played worldwide by men and women, boys and girls, in both professional and amateur leagues, as well as in schools and, most of all, futsal academies as a strategy to improve player development (Barbeto-Alvarez et al., 2008). While originally developed for able-bodied players, its adaptability has led to its inclusion in disability sports, including versions for athletes with visual or mobility impairments (Smith et al., 2020). There are formats of the game played according to the International Football Association Board (IFAB) and Fédération Internationale de Football Association (FIFA) rules that are specifically designed for athletes with intellectual impairments, sometimes referred to as learning disabilities. Eligibility for Intellectual Impairment Football requires a recognized intellectual impairment, defined as an IQ of 75 or below, coupled with limited adaptive behavior, such as needing assistance with everyday tasks like cooking or using public transport (Bolt et al., 2015). The impairment must have manifested before the age of 15 (American Psychiatric Association, 2013). Internationally, the game adheres strictly to the IFAB Laws of the Game with no adaptations, mirroring FIFA competition rules (IFAB, 2020). Match duration may vary based on impairment levels: grassroots games are often played in 30-minute halves, while international matches follow standard 45-minute halves. The sport showcases dynamic play, including fierce attacks and rapid dribbling. Currently, three eligibility groups exist within competitions for athletes with intellectual impairments, ensuring fair participation (Virtus, 2021). This group of impaired athletes usually faces challenges with conceptual, social, and practical skills. Futsal is also viewed as a team sport for recreational activities and leisure, based on the studies of Eime et al. (2013). Their study provided a systematic review of the psychological and social benefits of participation in sports for adults, informing the development of a conceptual model of health through sports. Dimeo and Ribeiro (2009), working with futsal players, focused their study on adaptation to new countries, national identity, and the personal attitudes of the players. Their findings suggested that futsal players generally migrate for a positive experience, driven by better sporting infrastructure and economic prospects. Brazil, in particular, is noted for its well-developed futsal infrastructure, attracting players globally for both lifestyle and professional reasons (Altmann & dos Reis, 2013). However, challenges vary across participation levels. At the grassroots level, barriers such as limited awareness and accessibility persist. Macbeth (2009) found that partially sighted players in Britain faced significant hurdles, including long travel distances and poor knowledge of opportunities, reflecting socially imposed restrictions. The transition from five-a-side football to futsal in the British Blind Sport Visually Impaired Football League (BBSVIFL) further complicated participation due to format changes and limited support (Macbeth, 2009). Furthermore, barriers such as inaccessible infrastructure and societal stigma often limit access for athletes with impairments, necessitating adaptive approaches to maximize benefits (Ngala et al., 2020). In 2019, the Fédération Internationale de Football Association (FIFA) observed that while futsal's low infrastructure requirements and adaptability make it accessible for diverse populations, individuals with impairments still face difficulties facilitating physical activity and social engagement in resource-limited settings. It is therefore possible that the subjective well-being of impaired futsal athletes depends highly on the nature of the infrastructure and related facilities, such as equipment.

Subjective well-being (SWB) is comprised of a person's subjectively perceived satisfaction with their life and the balance of positive and negative emotions they feel. According to Krueger et al. (2009), subjective well-being refers to how people experience and evaluate their lives, as well as specific domains and activities within their lives. Subjective well-being, which is people's cognitive and emotional evaluation of their lives, involves what is commonly referred to as happiness, peace, prosperity, and life satisfaction. People with a high level of well-being experience more positive emotions; have positive evaluations of their past, future, others, and events happening to them; and describe such incidents as pleasant (Diener, 2000). These various concepts of well-being have been recently adapted, translated, and integrated into the sports world (Lundqvist & Sandin, 2014). Subjective well-being deals with an individual's cognitive evaluations (life satisfaction) and affective experiences (positive emotions, reduced negative emotions) of their life, reflecting overall psychological health and fulfillment (Diener et al., 2018). Subjective well-being is shaped by personal achievements, social relationships, and environmental factors, making it a critical indicator of quality of life. For individuals with impairments, activities like team sports can enhance well-being by fostering self-esteem, social inclusion, and emotional resilience (Downward & Rasciute, 2011). Research shows that futsal participation is positively associated with subjective well-being, with team sports being particularly effective due to their social and collaborative nature (Martin et al., 2021). However, athletes evaluated with lower levels of well-being often experience more negative emotions like stress and depression (Peyvastehgar, 2010). Moreover, well-being can help athletes deal with the diverse challenges that they face during their sporting careers. A great majority of sports psychology interventions focus on the obstacles athletes face, which are actually designed to directly or indirectly increase components of the athletes' well-being (Williams, 2009). Studies have also revealed that elite athletes with long, successful sports careers are characterized by a range of attributes related to well-being, including a hopeful and positive view of the future, high perceived ability, high self-esteem, adequate life balance, well-developed skills to cope with both major and minor life challenges, and high levels of mental and emotional health (e.g., Durand-Bush & Salmela, 2002; Gould, Dieffenbach, & Moffett, 2002; Morgan, 1985). Self-Determination Theory (SDT), developed by Deci and Ryan (2000), is a widely applied framework in exercise and sports psychology that explains human motivation through three basic psychological needs: competence, autonomy, and relatedness (Chatzisarantis & Hagger, 2009). It is also highly useful in explaining the relationship between the practice of futsal and the subjective well-being of athletes with impairments. SDT posits that these needs are essential for psychological adjustment, personal growth, and well-being (Ryan, 1995; Ryan et al., 2020). Competence refers to feeling effective in one's environment, autonomy involves feeling in control of one's actions, and relatedness reflects the need for close, meaningful relationships. According to SDT, environments that support these needs foster intrinsic motivation, characterized by self-regulated engagement in activities for inherent interest and enjoyment, without reliance on external rewards (Deci & Ryan, 1985, 2000). Intrinsic motivation drives personal commitment to activities like futsal, enhancing subjective well-being through positive emotions and fulfillment (Deci & Ryan, 1991). In the context of futsal, SDT suggests that participation satisfies these psychological needs, promoting well-being among athletes, including those with impairments. Competence is fostered through mastering futsal skills, autonomy through choosing to engage in the sport, and relatedness through team interactions and social bonds. The theory emphasizes that need-supportive environments, such as inclusive sports programs, enhance intrinsic motivation and well-being, making SDT particularly relevant for understanding futsal's impact in resource-constrained settings like Cameroon (Ryan et al., 2020). SDT is highly relevant to this study, which investigates the relationship between futsal participation and subjective well-being among 36 athletes with impairments in Bamenda and Yaoundé, Cameroon. The theory provides a robust framework for explaining how futsal fosters well-being by meeting the psychological needs of competence, autonomy, and relatedness, particularly in a population facing physical and socio-cultural barriers. Despite futsal's adaptability, there is a lack of empirical evidence on its specific impact on the subjective well-being of athletes with impairments in Bamenda and Yaoundé, Cameroon. Existing research on disability sports often focuses on Paralympic disciplines or Western



contexts, overlooking futsal's role in developing nations with unique socio-cultural and resource constraints (Smith et al., 2018). This study addresses this gap by examining the relationship between futsal participation and subjective well-being among athletes with impairments in these regions, aiming to inform targeted interventions that enhance psychological and social outcomes while overcoming barriers to participation. This provides the rationale for investigating futsal's influence on subjective well-being in Bamenda and Yaoundé.

Methodology

This study employed a quantitative design to investigate the relationship between futsal participation and subjective well-being among athletes with impairments. The quantitative data were statistically analyzed to provide a psychological understanding of the impact of futsal on well-being. A purposive sample of 36 athletes with impairments who participate in futsal was recruited from Bamenda and Yaoundé, Cameroon. Inclusion criteria were: (a) aged 14–40 years, (b) diagnosed with an impairment, and (c) engaged in futsal for at least six months. The players presented a medical record declaring the degree of their intellectual impairment and a disability card issued by the Ministry of Social Affairs. The confidentiality of this information was strictly respected. The documents were verified in the presence of the coaches, who had been in possession of the documents since the athletes registered with the club. Purposive sampling was used in the study to ensure that participants had relevant experiences aligned with the research objectives. Athletes were identified through local futsal programs and community networks, ensuring active participation and knowledge of the sport.

Quantitative data were collected using two validated instruments: the Physical Activity Scale for Individuals with Physical Disabilities (PASIPD), developed by Washburn et al. (2002)—this is a 13-item self-report scale adapted to measure futsal participation (e.g., frequency and intensity of play)—and the Satisfaction with Life Scale (SWLS), a 5-item scale measuring global life satisfaction (Diener et al., 1985). A total of 36 questionnaires were distributed to the players on the training ground after the various components and instructions on how to complete the surveys were explained. It was printed in both the French and English languages, allowing the players to fill it out in their first language. The players were assisted by their trainers and coaches in this process, which lasted for about half an hour. The questionnaires were all returned, achieving a 100% response rate, indicating high participant engagement and effective data collection strategies, such as accessible survey formats and strong rapport with participants.

Quantitative data from the PASIPD and SWLS were analyzed using descriptive statistics (means, standard deviations) and linear regression to assess the relationship between futsal participation and subjective well-being. The demographic section of the questionnaire was used to collect participant characteristics, including age, gender, type of impairment (intellectual), education level, and socio-economic status. The athletes were recruited from futsal clubs in the cities of Bamenda and Yaoundé. Surveys were provided in English and French, printed in large-print formats for visibility to the athletes with impairments. The researcher was assisted by trained assistants in the field of disability sports to administer the questionnaires.

Descriptive statistics (means, standard deviations) were used to summarize PASIPD and SWLS scores. Analyses were conducted using SPSS version 28. Correlation analysis was used to explore associations between futsal participation and the subjective well-being of athletes. Ethical approval was obtained from the institutional review board of the university, the National Center for Rehabilitation of Persons with Disabilities (CNRPH) Etoug-Ebe Yaoundé, and the regional representative for disability programs in Bamenda. To ensure that the players were not subjected to psychological or physical harm, the researcher selected athletes who had been in the domain of futsal for at least six months and who had mastered the basics of the game. Informed consent was secured from all participants, ensuring voluntary participation and confidentiality.

Results

The work used the descriptive statistics to present the results on futsal participation and subjective well-being of players with impairments in Bamenda and Yaoundé, Cameroon. Table 1 presents descriptive statistics for two variables, futsal participation and subjective wellbeing based on data from 36 athletes with impairments.

Table 1: Descriptive Statistics for Study Variables

Variable	N	Min	Max	Mean	SD	Variance
Futsal	36	7.00	24.00	15.49	3.32	11.043
Subjective wellbeing	36	11.00	27.00	20.45	3.41	11.638

Table 1 represents a sample size of 36 athletes with Intellectual impairments playing futsal. Scores range from 7.00 to 24.00, indicating variability in the frequency or intensity of futsal participation. The mean score of 15.49 suggests moderate engagement in futsal activities. The standard deviation (3.32) and variance (11.043) reflect moderate variability in participation levels, suggesting differences in athletes' access to futsal, physical capabilities, or commitment. The subjective wellbeing variable, also has a sample size of 36. Scores range from 11.00 to 27.00, with a mean of 20.45, suggesting generally positive wellbeing among athletes. The SWLS scores reflect moderate life satisfaction standard deviation (3.41) and variance (11.638) indicate moderate variability, implying that while most athletes report positive wellbeing, some experience lower levels, possibly due to barriers like stigma or limited resources (Ngala et al., 2020).

The study was equally interested in the prevalence of the Practice of Futsal by Athletes with Impairments and the analysis has been shown in table 2.

Table 2: Opinions on Futsal Participation by Athletes with Impairments (%) N=36

Items	Disagreement (SD +D)	Agreement (A+SA)	Mean	SD
Playing futsal brings me joy and satisfaction.	19.3	87.0	3.21	.939
Participating in futsal helps me focus on my abilities	28.9	80.1	2.81	.926
I feel confident in my ability to use futsal techniques.	73.3	26.7	1.95	.925
Being part of the futsal team gives me a sense of pride	67.4	32.6	2.07	1.027
I see futsal as a pathway to achieving personal goals.	26.7	73.3	2.99	.926
Playing futsal helps me feel more accepted in my community.	46.7	53.3	2.47	1.006
Mean Multiple Response	53.71	68.83	2.58	.958

Table 2 indicates that 87.0% agreement and a mean of 3.21, of most athletes find futsal enjoyable, aligning with research showing sports participation enhances positive affect in individuals with disabilities. The standard deviation (.939) indicates moderate response variability, suggesting some athletes experience less joy, possibly due to barriers like limited access to facilities. Most of the respondents accorded that participating in futsal helps them focus on their abilities rather than their limitations. The 80.1% agreement and mean of 2.81 reflect futsal's role in promoting a strengths-based perspective, a key factor in psychological resilience. The standard deviation (.926) suggests consistent views, though the 28.9% disagreement indicates some athletes may still feel limited by their impairments.

More so, 73.3% of the respondents disagreed to the statement, I feel confident in my ability to use futsal techniques effectively. This item shows the lowest agreement (26.7%) and mean (1.95), with 73.3%

disagreement, indicating low confidence in technical skills. This stems from inadequate and adaptive equipment, common challenges in resource-constrained settings. The standard deviation (.925) reflects relatively uniform responses. Again, 32.6% of the athletes responded that being part of the futsal team gives them a sense of pride and belonging: With only 32.6% agreement and a mean of 2.07, this item suggests limited social benefits from team participation. The 67.4% disagreement and higher standard deviation (1.027) indicate diverse experiences, possibly due to stigma or weak team cohesion in the study regions.

Furthermore, 73.3% of the respondents agreed that they see futsal as a pathway to achieving personal goals: The 73.3% agreement and mean of 2.99 suggest futsal is viewed as a tool for personal growth, such as improving health or self-esteem. The standard deviation (.926) indicates consistent perceptions, though 26.7% disagreement may reflect limited opportunities to pursue goals through futsal. While 53.3% of them opine that playing futsal helps them feel more accepted in the community. With 53.3% agreement and a mean of 2.47, community acceptance is moderately positive but not universal. The 46.7% disagreement and standard deviation (1.006) suggest varied experiences, likely influenced by cultural attitudes toward disability in Cameroon. The mean multiple response shows 68.83% agreement across items, with a mean score of 2.58, indicating a slightly positive overall perception of futsal's benefits. The 43.71% disagreement and standard deviation (.958) reflect moderate variability, suggesting that while futsal contributes to wellbeing, its impact is inconsistent due to individual or contextual factors.

Table 3 presents a model summary from a linear regression analysis examining the relationship between futsal participation and subjective wellbeing among 36 athletes with impairments in Bamenda and Yaoundé Cameroon.

Table 3: Model summary on futsal and subjective wellbeing of players

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df2	Sig. F Change
1	.230 ^a	.053	.046	3.33258	.053	7.421	1	133	.007

The R value of .230 indicates a weak positive correlation between futsal participation and subjective wellbeing. This suggests that higher levels of futsal participation are associated with slightly higher subjective wellbeing. The weak correlation may reflect contextual factors, such as limited access to futsal facilities or varying impacts of participation on wellbeing. The R Square value of .053 indicates that 5.3% of the variance in subjective wellbeing is explained by futsal participation. The F statistic of 7.421 tests the model's overall significance. With degrees of freedom (df1=1, df2=133), the value indicates whether the model significantly improves prediction over a null model. The p-value of .007 ($p < .05$) indicates that the model is statistically significant, meaning futsal participation has a significant effect on subjective wellbeing. The findings imply that interventions to enhance subjective wellbeing among athletes with impairments should extend beyond futsal participation to address other factors, such as community inclusion, psychological support, or improved access to adaptive sports facilities

Table 4 presents an Analysis of Variance (ANOVA) for a linear regression model examining the relationship between futsal participation and subjective wellbeing among athletes with impairments in Bamenda and Yaounde Cameroon.

Table 4: ANOVA table for Futsal and subjective well-being

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82.420	1	82.420	34.037	.007 ^b

	Residual	1477.106	133	11.106		
	Total	1559.526	134			

The F-statistic is computed as the ratio of the regression mean square to the residual mean square ($82.420 / 11.106 = 34.037$). This tests whether the regression model significantly explains the variance in subjective wellbeing compared to a model with no predictors. A high F-value suggests the model was meaningful. The p-value of .007 ($p < .05$) indicates that the regression model is statistically significant, meaning futsal participation has a significant effect on subjective wellbeing. The ANOVA results indicate that futsal participation significantly predicts subjective wellbeing ($p = .007$), portraying that futsal has a positive effect on athletes with impairments. In conclusion, the ANOVA table confirms a statistically significant relationship between futsal participation and subjective wellbeing.

Table 5 presents the coefficients from a linear regression model examining the relationship between futsal participation and subjective wellbeing among athletes with impairments in Bamenda and Yaounde Cameroon.

Table 5: Coefficients for futsal and subjective well-being

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. E	Beta			Lower B	Upper B
1	(Constant)	16.802	1.373		12.239	.000	14.087	19.517
	Futsal	.236	.087	.230	2.724	.007	.065	.407

The intercept indicates that when futsal participation is zero, the predicted subjective wellbeing score is 16.802. This baseline value is meaningful within the context of the wellbeing scale used (SWLS: 5–35), suggesting a moderate level of wellbeing without futsal participation. The t-statistic and p-value ($p < .001$) confirm that the intercept is statistically significant, meaning the baseline wellbeing score is reliably different from zero.

For each unit increase in futsal participation, subjective wellbeing increases by 0.236 units on the wellbeing scale. This suggests a positive but small effect of futsal on wellbeing. This aligns with the weak correlation ($R = .230$) from prior model summary data, suggesting futsal has a modest influence on wellbeing. The t-statistic and p-value ($p < .05$) confirm that the futsal coefficient is statistically significant, indicating that futsal participation reliably predicts subjective wellbeing. The confidence interval suggests that the true effect of futsal on wellbeing lies between 0.065 and 0.407 units per unit increase in futsal participation, with 95% confidence. The interval does not include zero, reinforcing the statistical significance of the effect. The coefficients table indicates a statistically significant but weak positive relationship between futsal participation and subjective wellbeing ($p = .007$, Beta = .230).

Discussion of Findings

The finding reveals a moderate mean score for futsal participation and subjective wellbeing suggesting that futsal is accessible and beneficial for athletes with impairments. The variability in scores highlights the need to address individual differences, such as access to adaptive sports infrastructure or psychological support, to maximize benefits. This moderate variability implies that while most athletes report positive wellbeing, some experience lower levels, possibly due to barriers like stigma or limited resources (Ngala et al., 2020).

Results reveal that futsal positively influences the subjective well-being of athletes with impairments, the large agreement across items implies that futsal significantly enhances well-being. The players, highly agreeing that futsal gives them joy and satisfaction aligns with research showing how team sports foster positively affect individuals with disabilities (Martin Ginis et al., 2021). The findings highlight futsal's potential to foster joy, life satisfaction abilities, personal integration of athletes with impairments (Martin Ginis et al., 2021). Futsal enhances happiness, athletes' health, and social bonds, and community integration in some of the athletes who do practice this activity. Similarly, the athletes also agree that, focusing on abilities rather than limitations underscores futsal's role in promoting psychological resilience.

The players agreed that futsal serves as a pathway to personal goals, reflects its contribution to self-esteem and purpose, critical for well-being in resource-constrained settings as supported by (Downward & Rasciute, 2011). It should be noted that the low mastery of technical skills and limited pride and belonging agreement, highlight significant barriers, including inadequate coaching and adaptive equipment supported by (Ngala et al., 2020). This low confidence in techniques and weak sense of pride and belonging indicate gaps in adaptive infrastructure and equipment. The players noted low community acceptance, this suggests that cultural stigma limits social inclusion of the players in the society this aligned with the study of (Ticha et al., 2022). These gaps, reflected in moderate variability indicate futsal's impact is constrained by infrastructural and socio-cultural challenges. Based on the analysis, the study reveals that futsal has a generally positive effect on the wellbeing of players with impairment, with the players agreeing that futsal has a positive impact on their subjective wellbeing.

Concerning the regression analysis, it reveals a statistically significant but weak positive relationship between futsal participation and subjective well-being among athletes with impairments. The R Square value indicates that futsal participation explains the variance in well-being. It also suggests that, other factors such as social support, infrastructure, stigma and community acceptance, plays a larger role in the subjective well-being of the athletes. This aligns with the studies of (Martin et al., 2021). The ANOVA results confirms that the regression model significantly predicts subjective well-being, indicating that futsal participation has a statistically significant effect on futsal. The unstandardized coefficient indicates that each unit increase in futsal participation raises well-being units, with confidence interval excluding zero, reinforcing the effect's significance. However, the weak beta coefficient and low explained variance highlight futsal's modest impact, likely limited by barriers like inadequate facilities or cultural stigma as stated by (Ngala et al., 2020). These findings align with evidence that team sports enhance well-being through physical activity and social bonds but underscore the need for improved infrastructure and support to maximize futsal's benefits in resource-constrained settings (Martin Ginis et al., 2021). The data provide a foundation for improving futsal programs in Bamenda and Yaounde Cameroon through better training, inclusive facilities, and community sensitization.

The study has several limitations that affect its scope and generalizability. First, it utilized a small purposive sample of only 36 athletes with impairments, which restricts the applicability of the findings to a broader population. Second, the study focused exclusively on athletes with intellectual impairments, defined as having an IQ of 75 or below, thereby excluding those with other types of impairments, such as visual or physical disabilities. This narrow focus limits the relevance of the results to the wider community of athletes with disabilities. Third, the study employed a quantitative, cross-sectional design, collecting data at a single point in time. This approach limits the ability to assess the long-term impact of futsal participation on subjective well-being or to establish causal relationships.

Conclusion

In conclusion the study demonstrates that futsal has a statistically significant but modest positive impact on the subjective wellbeing of athletes with impairments in Bamenda and Yaoundé Cameroon. However,



challenges such as low confidence in techniques, weak team belonging, and moderate community acceptance, highlight barriers like inadequate coaching, limited facilities, and socio-cultural stigma (Ngala et al., 2020; Ticha et al., 2022). These findings underscore futsal's potential as a tool for enhancing wellbeing but emphasize the need for targeted interventions to maximize its impact. By improving adaptive coaching, facilities, team cohesion, community acceptance, and psychological support, futsal programs can better serve athletes with impairments, fostering greater life satisfaction and social inclusion. The modest effect size suggests that futsal is one part of a broader ecosystem of support needed to enhance wellbeing, requiring collaboration among sports organizations, policymakers, and communities. Future research and program expansion can build on these insights to create more inclusive and impactful disability sports initiatives in Cameroon and beyond, aligning with global calls for equitable physical activity opportunities (Martin Ginis et al., 2021).

From the findings of the study some pertinent recommendations were advanced. The Government/ Ministry of sports should develop training programs for coaches to specialize in adaptive futsal techniques for physical impairments. There should be fundamental investment in futsal facilities (e.g., smooth surfaces, adaptive equipment, infrastructures) in Bamenda and Yaoundé, partnering with local governments and NGOs. Secure grants from international sports bodies to fund infrastructure upgrades. Coaches and Trainers should implement team-building activities (e.g., group discussions, social events) to enhance pride and belonging. Encourage peer mentoring to foster friendships and team cohesion. Communities should launch outreach campaigns to educate residents about disability sports, reducing stigma. Involve athletes in public futsal demonstrations to showcase abilities. Mental Health Support groups should provide access to sports psychologists to support resilience, goal-setting, and stigma coping. Incorporate well-being workshops into futsal programs and finally athletes with intellectual impairments should make more efforts to effectively participate and practice futsal by respecting training hours and program, encouraging their peers to also practice the game for their sanity. Longitudinal studies with larger, diverse samples can be carried out to validate findings and explore predictors like social support. Investigate futsal's impact on other impairment types, such as visual impairments.

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