



Exploring the Benefits of Recreational Sports: Promoting Health, Wellness, and Community Engagement

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ABSTRACT

Purpose of the study: This research aims to determine the perception of visitors who carry out recreational sports activities at the Kota Baru sports hall, Jambi Province

Methodology: This study employed a quantitative method with a descriptive design. The sample was selected using simple random sampling technique. The instrument utilized in this research was a questionnaire assessing public perception in recreational sports activities at Kota Baru Sports Hall, Jambi. Data analysis was conducted using descriptive statistics.

Main Findings: The research conducted at Kota Baru Jambi sports hall reveals that public perception of recreational sports activities is predominantly positive, with 53.3% of respondents rating it as quite good. The study highlights the significance of recreational sports in promoting healthy lifestyles and social interaction. Additionally, it emphasizes the need for policy interventions to enhance facilities and diversify recreational offerings. This research contributes to understanding public perceptions and underscores the importance of recreational sports in fostering community well-being. Further investigation is recommended to explore specific factors influencing participation.

Novelty/Originality of this study: The study at Kota Baru Jambi sports hall unveils public perception of recreational sports, emphasizing its positive impact on health and social interaction. It underscores the importance of policy interventions for facility enhancement and activity diversification. This research contributes to understanding community perceptions and promoting well-being through recreational sports. Further exploration of participation influencers is recommended.

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1. INTRODUCTION

Community recreational sports activities at the Kota Baru Sports Hall and Arts Hall in Jambi Province play a significant role in global, regional, and local contexts. In this modern era, countries worldwide are increasingly recognizing the importance of developing recreational sports activities as an essential component of people's lives [1]-[3]. This perspective is reflected in the growing emphasis on promoting healthy lifestyles and well-being through structured physical activity [4]-[6]. Even at the level of developing countries, cooperation in

promoting recreational sports has become a crucial focus in enhancing prosperity and fostering friendship between nations [7]-[9]. In Indonesia, as a developing country, both the government and society are increasingly acknowledging the positive role of recreational sports in enhancing the quality of life and strengthening social bonds.

Recreation not only constitutes part of tourism activities but also serves as an appealing option for local residents to spend their leisure time. One intriguing aspect of recreation is its ability to provide an affordable alternative for individuals seeking relaxation without significant financial expenditure [10]-[12]. Particularly in urban centers, various forms of recreational sports serve as significant attractions for both tourists and local inhabitants [13]-[15]. This renders city centers, such as the Kota Baru Sports Hall and Arts Hall in Jambi Province, inexpensive tourist destinations that garner interest from numerous people.

The reasons why Indonesians often prefer city centers as affordable recreation areas are multifaceted. One factor is the availability of diverse and adequate facilities in urban centers, encompassing open spaces, sports facilities, and tourist sites. The Kota Baru Sports Hall and Arts Hall in Jambi Province exemplify how city centers can evolve into hubs of community-friendly recreational activities, offering a myriad of facilities and programs to cater to diverse needs.

The public perception of recreational sports activities at the Sports Hall (GOR) and the GOS Arts Hall in Kota Baru, Jambi Province, constitutes a crucial aspect that necessitates consideration. Through this research, an analysis will be conducted to ascertain how the community perceives and responds to the array of recreational activities available in the city. Understanding these perceptions can yield valuable insights for the future development and enhancement of recreational sports programs.

Drawing from previous relevant research, it is evident that recreation areas serve as vehicles for the sustainable development of a region. Previous research findings delve into understanding the intricate interplay of social, economic, and environmental factors influencing sustainability [16]. The difference is that previous research was conducted in the West Indies region, researching recreation in the fisheries sector (Marine Recreational Fisheries). Previous research reviewed the challenges and opportunities for sustainably developing marine recreational fisheries in the West Indies Region. For this reason, evaluations related to recreation as a means of sport, social interaction are of course no less important.

So this research was conducted to review the public's perception of sports and recreational arts activities, especially in sports and arts buildings in Kota Baru, Jambi Province. This research offers novelty with its focus on the practical evaluation of community recreational sports activities in a specific location, namely the New City Sports Hall, Jambi Province. By highlighting community participation in recreational sports activities and its implications for local policy, this research provides an in-depth understanding of the dynamics, challenges and potential improvements in the management and promotion of recreational sports in a developing urban environment such as Kota Baru.

Research on the evaluation of community recreational sports activities at the Kota Baru sports hall provides an important basis for the development of more inclusive and responsive policies. By understanding people's participation preferences and challenges, governments can allocate resources more efficiently, improve the accessibility of sports facilities, and design more effective promotional programs. This not only identifies participation trends, but also strengthens community ties and the overall well-being of society.

Finally, the urgency and aim of this research is to provide a comprehensive understanding of community recreational sports activities in the Kota Baru Sports Hall, Jambi Province. This research aims to determine the perception of visitors who carry out recreational sports activities at the Kota Baru sports hall, Jambi Province. Thus, it is hoped that this research can become the basis for further efforts to develop and promote healthy lifestyles through physical activity in local communities and beyond.

2. RESEARCH METHOD

This research uses a cross-sectional descriptive research design. Data will be collected at a certain point in time from respondents who represent the population being studied [17]-[19]. The population of this study are people who live around the Kota Baru GOR (Sports Hall). The sample will be selected randomly from the population, with a sufficient number of respondents to represent variations in community characteristics [20]- [22].

The instrument used was a structured questionnaire designed to collect data about community recreational sports activities at the Kota Baru sports hall. The questionnaire will contain closed questions that can be measured numerically. Data will be collected through a survey using a questionnaire. Respondents will be asked to complete the questionnaire themselves or through an interview, depending on their preference. The survey will be carried out in strategic locations around the Kota Baru sports building. The grid for this research data collection instrument is presented in table 1 below:

Table 1. Data collection instrument grid

Indicator	Total Items
Availability of recreational sports facilities	1,2,3,4
Effectiveness of promoting a healthy lifestyle	5,6,7,8,9,10
Security of recreational sports facilities	11,12,13
Environmental sustainability, social role, accessibility and quality of management	14,15,16,17,18
Total	18

The measurement instrument for this research uses a Likert scale of 4. The categories are presented in table 2 below:

Table 2. Instrument categories related to public perception

Category	Interval
Very good	58.6 – 72
Good	45.1 – 58.5
Enough	31.6 – 45.0
Not good	18 – 31.5

The data collected will be analyzed using descriptive statistical methods such as frequency, mean and percentage to describe the characteristics and patterns of the data obtained [23][25]. This analysis will help in understanding the most popular recreational sports activities at the New Town sports hall, frequency of participation, activity preferences, and factors influencing participation. By using this quantitative research method, it is hoped that this research can provide a deeper understanding of community recreational sports activities at the Kota Baru sports hall and the factors that influence them [26]-[28].

3. RESULTS AND DISCUSSION

Based on the analysis carried out using descriptive statistical tests assisted by SPSS software, it was found that a description of the community's response to community recreational sports venues in GOS Kota Baru is presented in table 3 below:

Table 3. Results of descriptive statistical tests on community perceptions of community recreational sports activities at the Kota Baru sports hall

Responden	Category	Interval	Freq	%	Mean	Median	Min	Max
Masyarakat	Very good	58.6 – 72	3	4	46.31	44.5	20.0	70.0
	Good	45.1 – 58.5	30	40				
	Enough	31.6 – 45.0	40	53.3				
	Not good	18 – 31.5	2	2.7				

Based on table three above, it is known that the perception of people who have recreation and exercise at the Kota Baru Jambi sports hall is dominant in the quite good category with a percentage of 53.3%. This means that the public thinks that the availability of recreational sports facilities, the effectiveness of promoting healthy lifestyles, the safety of recreational sports facilities, environmental sustainability, social role, accessibility and quality of management are good enough. Apart from that, through recreation areas, people can carry out activities that pay attention to their physical fitness as well as economical costs. The community also considers this recreation area as a means of social interaction and sports with adequate facilities. However, perhaps policy makers can maximize this recreational sports venue by adding more supporting facilities (toilets). Then perhaps add a variety of recreational sports activities on offer. Then the public feels the positive impact of this recreational sports activity, which can be accessed during holidays and is affordable. Apart from that, the people who come are also motivated by other people who visit and do regular exercise to maintain their health and fitness.

In line with previous research, the majority of respondents would do more exercise if there was someone in their life or an acquaintance among them who could motivate them [29]. Then previous research also found that Hungarian respondents' activeness in sports was also confirmed compared to Romanian respondents. Those who exercise in their free time have noticed some positive effects on themselves. As a generalization of previous research, this research was conducted to determine public perceptions regarding recreational sports activities in Jambi province, Indonesia. It turns out that the results of this research are in line with previous research, namely that the existence of recreational sports activities makes it easier for people to be able to fill their holiday time with positive things, one of which is recreational sports activities.

Apart from being affordable, this recreational sports activity is also a motivation to adopt a healthy lifestyle and care for the environment. The economical cost of getting facilities for exercise makes many people

interested in coming in their free time to exercise and interact with people around us. In line with the results of this study, previous research shows that there is a relationship between environmentally friendly behavior and participation in recreational water sports activities [30]. The difference is that previous research focused on recreational water sports.

The novelty of the results of this research lies in several aspects. First, this research provides a clear picture of public perceptions regarding recreational sports activities at the Kota Baru Jambi sports hall, Indonesia. The data collected shows that the public views the availability of recreational sports facilities, effectiveness of promoting healthy lifestyles, safety of facilities, environmental sustainability, social role, accessibility, and quality of management as quite good. This provides a deeper understanding of how the public assesses existing recreational facilities and the extent to which they are satisfied with their use [31]-[33]. Second, this research highlights the importance of recreational sports activities in influencing people's healthy lifestyles. Apart from being a means of recreation, this place is also considered a motivation to maintain body fitness, especially because the costs are affordable [34], [35]. This shows that sports activities not only provide physical benefits, but also influence people's overall health behavior.

Recreational sports activities encompass a wide range of physical exercises and leisure pursuits that offer individuals an opportunity to engage in healthy and enjoyable pastimes. These activities not only promote physical fitness but also contribute to mental well-being and social interaction among participants [36]-[38]. Whether it's jogging along scenic trails, swimming in community pools, or cycling through picturesque landscapes, recreational sports provide avenues for relaxation and stress relief. Moreover, these activities encourage individuals of all ages to adopt a more active lifestyle, thereby fostering habits that promote long-term health and wellness [39]-[41]. By participating in recreational sports, individuals not only improve their physical health but also enhance their overall quality of life by finding joy and fulfillment in leisure pursuits that contribute to a balanced and fulfilling lifestyle.

Third, the results of this research contribute to the development of further policies and strategies in the management of recreational sports facilities. Recommendations for improving supporting facilities, increasing the variety of sports activities, and understanding the positive impacts of recreational sports activities can be the basis for policy makers in improving the quality and use of recreational facilities in the region. In addition, this research also shows consistency with previous research findings, especially in terms of the importance of motivation and social influence in increasing participation in sports. This provides further validity to the resulting findings and shows the consistency of this phenomenon in different contexts.

Thus, this research not only provides a deeper understanding of community perceptions regarding recreational sports activities in the region, but also provides valuable insights for the development of policies and practices related to recreational sports at the local level. Finally, although this research provides valuable insight into people's perceptions regarding recreational sports activities, further research is needed to identify more specific factors that influence people's participation in these sports activities. With these limitations in mind, continued research can provide a more comprehensive understanding of this topic and guide the development of policies and practices that are more effective in promoting recreational sport activities in these communities.

4. CONCLUSION

Based on the results of the research and discussion above, it is concluded that the public's perception of recreational sports activities in the Kota Baru Jambi sports hall tends to be positive, with the majority of respondents viewing them as quite good. This shows the importance of recreational sports facilities in meeting community needs and motivating healthy lifestyles. Recommendations to improve the quality of facilities, strengthen the promotion of healthy lifestyles, and hold social activities involving the community could be strategic steps in advancing the management and use of recreational sports facilities in the region. Further research is also needed to better understand the specific factors that influence community participation in recreational sports activities, in order to improve policies and practices that are more effective in supporting the health and well-being of local communities.

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REFERENCES

- [1] V. Ratten, "Coronavirus (covid-19) and entrepreneurship : changing life and work landscape," *J. Small Bus. Entrep.*, vol. 32, no. 5, pp. 503–516, 2021, doi: 10.1080/08276331.2020.1790167.
- [2] H. Westerbeek and R. Eime, "The Physical Activity and Sport Participation Framework — A Policy Model Toward Being Physically Active Across the Lifespan," *Front. Sport. Act. Living*, vol. 3, no. 608593, pp. 1–11, 2021, doi: 10.3389/fspor.2021.608593.

- [3] D. Streimikiene, B. Svagzdiene, and A. Simanavicius, "Sustainable tourism development and competitiveness : The systematic literature review," *Sustain. Dev.*, no. April, pp. 1–13, 2020, doi: 10.1002/sd.2133.
- [4] M. R. Crone, M. N. Slagboom, A. Overmars, and L. Starken, "The Evaluation of a Family-Engagement Approach to Increase Physical Activity , Healthy Nutrition , and Well-Being in Children and Their Parents," *Front. Public Heal.*, vol. 9, no. 747725, 2021, doi: 10.3389/fpubh.2021.747725.
- [5] S. Buecker, T. Simacek, B. Ingwersen, and S. Terwiel, "Physical activity and subjective well-being in healthy individuals : a meta-analytic review," *Health Psychol. Rev.*, 2020, doi: 10.1080/17437199.2020.1760728.
- [6] C. Ranasinghe, C. Ozemek, and R. Arena, "Exercise and well-being during COVID 19 – time to boost your immunity," *Expert Rev. Anti. Infect. Ther.*, vol. 00, no. 00, pp. 1–6, 2020, doi: 10.1080/14787210.2020.1794818.
- [7] C. F. Baumeister, T. Gerstenberg, T. Plieninger, and U. Schraml, "Exploring cultural ecosystem service hotspots: Linking multiple urban forest features with public participation mapping data," *Urban Forestry & Urban Greening*, vol. 48, 126561, 2020, doi: 10.1016/j.ufug.2019.126561.
- [8] J. Alam and G. Borz, "Japan's contribution to Bangladesh: Aspirations for inclusive development and regional cooperation Japan ' s contribution to Bangladesh : Aspirations for inclusive development and regional cooperation," *Cogent Soc. Sci.*, vol. 8, no. 1, 2022, doi: 10.1080/23311886.2022.2138150.
- [9] J. Young, H. Maxwell, and N. Peel, "Leisure meets health: important intersections and alternative discourses," *Annals of Leisure Research*, vol. 24, no. 3, pp. 275–282, 2021, doi: 10.1080/11745398.2020.1836666.
- [10] C. D. Pierskalla, C. B. Akers, J. Deng, and D. A. Smaldone, "Examining changes in recreation participation on the Monongahela National Forest over fi ve years following the global fi nancial crisis : An activity-based segmentation approach," *Heliyon*, vol. 7, no. October 2020, p. e07266, 2021, doi: 10.1016/j.heliyon.2021.e07266.
- [11] C. Massidda, R. Piras, and N. Seetaram, "Annals of Tourism Research Empirical Insights Analysing the drivers of itemised tourism expenditure from the UK using survey data," *Ann. Tour. Res. Empir. Insights*, vol. 3, no. 1, p. 100037, 2022, doi: 10.1016/j.annale.2022.100037.
- [12] T. Ahmed, R. Islam, and S. Amin, "Transportation Research Interdisciplinary Perspectives Exploring the travel behavior changes caused by the COVID-19 crisis : A case study for a developing country," *Transp. Res. Interdiscip. Perspect.*, vol. 9, no. 100334, 2021, doi: 10.1016/j.trip.2021.100334.
- [13] Z. Kruczek, A. R. Szromek, B. Walas, and L. Mazanek, "Sources of conflict among tourism stakeholders in historical cities," *J. Policy Res. Tour. Leis. Events*, no. January, pp. 1–22, 2022, doi: 10.1080/19407963.2022.2027953.
- [14] A. R. Szromek, Z. Kruczek, and B. Walas, "Stakeholders ' attitudes towards tools for sustainable tourism in historical Stakeholders ' attitudes towards tools for sustainable tourism in historical cities," *Tour. Recreat. Res.*, vol. 0, no. 0, pp. 1–13, 2021, doi: 10.1080/02508281.2021.1931774.
- [15] A. Jiricka-pürerer, C. Brandenburg, and U. Pr, "City tourism pre- and post-covid-19 pandemic – Messages to take home for climate change adaptation and mitigation?," *J. Outdoor Recreat. Tour.*, vol. 31, 2020, doi: 10.1016/j.jort.2020.100329.
- [16] N. I. Kadagi, N. Wambiji, S. T. Fennessy, M. S. Allen, and R. N. M. Ahrens, "Challenges and opportunities for sustainable development and management of marine recreational and sport fisheries in the Western Indian Ocean," *Mar. Policy*, vol. 124, no. March 2020, p. 104351, 2021, doi: 10.1016/j.marpol.2020.104351.
- [17] K. Einola and M. Alvesson, "Behind the Numbers : Questioning Questionnaires," *J. Manag. Inq.*, vol. 30, no. 1, pp. 102–114, 2021, doi: 10.1177/1056492620938139.
- [18] T. F. Crossley, P. Fisher, and H. Low, "The heterogeneous and regressive consequences of COVID-19 : Evidence from high quality panel data q," *J. Public Econ.*, vol. 193, p. 104334, 2021, doi: 10.1016/j.jpubeco.2020.104334.
- [19] A. D. Arndt, J. B. Ford, B. J. Babin, and V. Luong, "Collecting samples from online services : How to use screeners to improve data quality," *Int. J. Res. Mark.*, vol. 39, no. 1, pp. 117–133, 2022, doi: 10.1016/j.ijresmar.2021.05.001.
- [20] H. Abebe, S. Shitu, and A. Mose, "Understanding of COVID-19 Vaccine Knowledge , Attitude , Acceptance , and Determinates of COVID-19 Vaccine Acceptance Among Adult Population in Ethiopia Understanding of COVID-19 Vaccine Knowledge , Attitude , Acceptance , and Determinates of COVID-19 Vac," *Infect. Drug Resist.*, pp. 2015–2025, 2021, doi: 10.2147/IDR.S312116.
- [21] V. Berdejo- *et al.*, "Urban green space use during a time of stress : A case study during the COVID- - 19 pandemic in Brisbane , Australia," *People Nat.*, pp. 597–609, 2021, doi: 10.1002/pan3.10218.
- [22] K. Grace, M. Danabal, S. S. Magesh, and S. Saravanan, "Attitude towards COVID 19 vaccines and vaccine hesitancy in urban and rural communities in Tamil Nadu , India – a community based survey," *BMC Health Serv. Res.*, vol. 21, no. 994, pp. 1–10, 2021.
- [23] K. Kamid, R. Rohati, H. Hobri, E. Triani, S. Rohana, and W. A. Pratama, "Process Skill and Student's Interest for Mathematics Learning: Playing a Traditional Games," *Int. J. Instr.*, vol. 15, no. 3, pp. 967–988, 2022, doi: 10.29333/iji.2022.15352a.
- [24] O. D. Apuke, "Quantitative Research Methods : A Synopsis Approach," *Kuwait Chapter Arab. J. Bus. Manag. Rev.*, vol. 6, no. 11, pp. 40–47, 2017, doi: 10.12816/0040336.
- [25] D. G. Hays and W. B. Mckibben, "Promoting Rigorous Research : Generalizability and Qualitative Research," *J. Couns. & Dev.*, vol. 99, no. April, 2021, doi: 10.1002/jcad.12365.
- [26] L. D. Conlin, E. Kuo, and N. R. Hallinen, "How null results can be significant for physics education research," *Phys. Rev. Phys. Educ. Res.*, vol. 15, no. 2, p. 20104, 2019, doi: 10.1103/PhysRevPhysEducRes.15.020104.
- [27] G. Engin, "An Examination of Primary School Students' Academic Achievements and Motivation In Terms of Parents' Attitudes, Teacher Motivation, Teacher Self-efficacy and Leadership Approach," *Int. J. Progress. Educ.*, vol. 16, no. 1, pp. 257–276, 2020, doi: 10.29329/ijpe.2020.228.18.
- [28] S. De Rosis, D. Cerasuolo, and S. Nuti, "Using patient-reported measures to drive change in healthcare: The experience of the digital, continuous and systematic PREMs observatory in Italy," *BMC Health Serv. Res.*, vol. 20, no. 1, pp. 1–17, 2020, doi: 10.1186/s12913-020-05099-4.

- [29] A. Kinczel, G. Maklári, and A. Müller, "Recreational Activities and Motivation Among Young People," *Geosport Soc.*, vol. 12, no. 1, pp. 53–65, 2020, doi: 10.30892/gss.1206-059.
- [30] E. Kontogianni, A. Zafeiroudi, and C. Kouthouris, "Integrating Green Marketing Issues in Water Sport Recreation Activities Integrating Green Marketing Issues in Water Sport Recreation Activities," *J. Phys. Educ. Sport. Manag.*, vol. 7, no. 1, pp. 44–54, 2020, doi: 10.15640/jpesm.v7n1a6.
- [31] L. Mansfield, N. Daykin, and T. Kay, "Leisure and wellbeing," *Leisure Studies*, vol. 39, no. 1, pp. 1–10, 2020, doi: 10.1080/02614367.2020.1713195.
- [32] L. M. Lower, B. A. Turner, and J. C. Petersen, *A Comparative Analysis of Perceived Benefits of Participation between Recreational Sport Programs*, vol. 37, no. 66–83. Cahaya Ilmu Cendekia, 2013.
- [33] Y. Jiang and F. Hong, "Examining the relationship between customer- perceived value of night-time tourism and destination attachment among Generation Z tourists in China," *Tour. Recreat. Res.*, vol. 0, no. 0, pp. 1–14, 2021, doi: 10.1080/02508281.2021.1915621.
- [34] D. Tessier, P. Sarrazin, and N. Ntoumanis, "The effect of an intervention to improve newly qualified teachers' interpersonal style, students motivation and psychological need satisfaction in sport-based physical education," *Contemp. Educ. Psychol.*, vol. 35, no. 4, pp. 242–253, 2010, doi: 10.1016/j.cedpsych.2010.05.005.
- [35] T. Forsell, J. Tower, and R. Polman, "Development of a Scale to Measure Social Capital in Recreation and Sport Clubs," *Leis. Sci.*, vol. 42, no. 1, pp. 106–122, 2020, doi: 10.1080/01490400.2018.1442268.
- [36] K. Sen, G. Prybutok, and V. Prybutok, "SSM - Population Health The use of digital technology for social wellbeing reduces social isolation in older adults : A systematic review," *SSM - Popul. Heal.*, vol. 17, no. December 2021, p. 101020, 2022, doi: 10.1016/j.ssmph.2021.101020.
- [37] K. F. Morse, P. A. Fine, and K. J. Friedlander, "Creativity and Leisure During COVID-19 : Examining the Relationship Between Leisure Activities , Motivations , and Psychological Well-Being," *Front. Psychol.*, vol. 12, no. 609967, 2021, doi: 10.3389/fpsyg.2021.609967.
- [38] C. Herbert, F. Meixner, C. Wiebking, and V. Gilg, "Regular Physical Activity , Short-Term Exercise , Mental Health , and Well-Being Among University Students : The Results of an Online and a Laboratory Study Health Benefits of Regular Physical," *Front. Psychol.*, vol. 11, no. May, 2020, doi: 10.3389/fpsyg.2020.00509.
- [39] M. H. Li *et al.*, "Promoting physical activity and health in Hong Kong primary school children through a blended physical literacy intervention : protocol and baseline characteristics of the ' Stand + Move ' randomized controlled trial," *Trials*, vol. 22, no. 944, pp. 1–15, 2021, doi: 10.1186/s13063-021-05925-y.
- [40] V. J. Beltrán-carrillo, Á. Megías, and D. González-cutre, "Elements behind sedentary lifestyles and unhealthy eating habits in individuals with severe obesity," *Int. J. Qual. Stud. Health Well-being*, vol. 17, no. 1, 2022, doi: 10.1080/17482631.2022.2056967.
- [41] G. Macassa, "Can sustainable health behaviour contribute to ensure healthy lives and wellbeing for all at all ages (SDG 3)? A viewpoint," *J. Public health Res.*, vol. 10, no. 2051, 2021, doi: 10.4081/jphr.2021.2051.