Report on the Nationwide Survey of Sports and Physical Activity Participation in Tanzania

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Foreword

The National Sports Council of Tanzania is proud to present this Report on the Nationwide Survey of Sports and Physical Activity Participation in Tanzania. This comprehensive study marks a significant milestone in our collective efforts to understand and enhance sports and physical activity engagement across our country. Sports and physical activity play an essential role in promoting health, fostering social connections, and strengthening communities. They are also integral to Tanzania's national development, contributing to the well-being of our citizens and empowering individuals of all ages to lead healthier, more active lives.

This report, conducted with the support of our partners, provides valuable insights into the current patterns and barriers to sports participation, as well as the diverse motivations of our people. Through data-driven analysis, it illuminates the distinct challenges and opportunities that exist across demographics, allowing us to identify where strategic efforts are most needed. The findings will serve as a critical resource for policymakers, stakeholders, and community leaders in building inclusive programs that make sports accessible and enjoyable for all Tanzanians.

I would like to express my sincere gratitude to the Japan International Cooperation Agency for their financial and technical support in making this survey possible, and to the dedicated efforts of the Department of Physical Education and Sport Sciences at the University of Dar es Salaam. I extend my heartfelt thanks to all regional officials, research assistants, and participants who contributed to the success of this survey. Together, let us continue to build a healthier, stronger Tanzania through sports. I hope this report inspires ongoing collaboration and innovative solutions that support the vision of a physically active, healthconscious nation.

Ms. Neema Msitha
Executive Secretary
National Sports Council of Tanzania

Acknowledgement

The implementation of the nationwide survey of sports and physical activity participation in Tanzania would not have been possible without the financial support from the Japan International Cooperation Agency (JICA). This funding was instrumental in surveying sport and physical activity participation among Tanzanians. We also wish to acknowledge the support received from the Department of Physical Education and Sport Sciences at the University of Dar es Salaam (UDSM), the National Sports Council of Tanzania (NSCT), and the Regional Administrative Secretaries in all the regions of Tanzania. Special thanks go to the research assistants who attended training on survey conduction and online data entry, dedicating their time and expertise, which significantly contributed to the success of this survey report.

The survey was implemented collaboratively with JICA, UDSM, and NSCT, and this report serves as an acknowledgment of their collective efforts in conducting the first nationwide survey on sports and physical activity participation in Tanzania. The project benefited greatly from the participation of trained research assistants from the Department of Physical Education and Sport Sciences at UDSM, as well as officials from the NSCT. Their contributions were essential in facilitating the implementation of the survey activities. Additionally, we deeply appreciate the input provided by regional and district sports officers and the consistent cooperation and support from regional administrative officers across Tanzania, which were invaluable for the survey's completion. The contributions of all involved are sincerely appreciated.

Gratitude is expressed to the staff of JICA, UDSM, and NSCT for their time, expertise, and unwavering support throughout the survey process and the preparation of this report. Special thanks are extended to Mr. Philemon Materu for his insightful feedback during all stages of the survey and their dedication to advancing the understanding and promotion of sports and physical activity within the Tanzanian context. His commitment and collaboration have been a source of inspiration for this effort. We also extend our heartfelt thanks to the anonymous participants who shared their experiences and provided valuable data on sports and physical activity participation in Tanzania; we hope this report meets their expectations. Particular appreciation is extended to Ms. Neema Msitha and Mr. Benson Chacha from the NSCT, whose efforts were instrumental in ensuring the smooth implementation of the survey across all regions in Tanzania.

Recognition is also given to Dr. Tomoya Shiraishi, the initiator of the survey and editor of this report, for his belief in the benefits of sports and physical activity for Tanzanians and his dedication to conducting the survey. His clear vision and commitment went above and beyond expectations and were crucial for the success of this nationwide initiative. The professionalism and dedication of the team at Trickster Limited ensured the timely and high-standard completion of this report. Gratitude is extended to everyone who contributed to this significant endeavor.

Dr. Cyprian Maro
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Executive Summary

This report presents the findings of the Nationwide Survey of Sports and Physical Activity (PA) Participation in Tanzania, conducted by the National Sports Council of Tanzania in collaboration with Japan International Cooperation Agency and the University of Dar es Salaam. The survey aimed to assess the current state of sports/PA participation across different demographics and provide recommendations for improving participation at both the grassroots and policy levels. Additionally, the survey aimed to provide a comprehensive overview of sports/PA participation, identify barriers and motivators, and offer evidence-based recommendations to policymakers, stakeholders, and community leaders.

A stratified sampling method was employed based on region and age, with data collected from 2,340 individuals across all 31 regions of Tanzania. The survey covered key demographic variables such as gender, age, residence, education, disability status, and exercise habits. Data collection was conducted through structured interviews and online entry, with survey assistants trained to ensure consistency and accuracy.

Based on the findings, the report proposes targeted interventions to improve sports/PA participation across Tanzania:

(1) Closing the Gender Gap

To encourage women's participation in sports, it is essential to implement policies that support community based sports programs specifically designed for women and girls. Additionally, promoting gender sensitive infrastructure and facilities is crucial to ensuring equitable access to sports/PA opportunities.

(2) Targeting Both Young and Elderly Populations

Increasing youth engagement in sports/PA can be achieved through the introduction of school-based sports programs and structured after-school activities. Furthermore, developing community programs tailored to elderly individuals, such as walking clubs and low-impact exercise sessions in indoor facilities, can enhance their participation in sports/PA and improve overall well-being.

(3) Developing School Sports and Physical Education

Making Physical Education (PE) a compulsory subject in secondary schools is fundamental to fostering lifelong engagement in sports/PA. Additionally, providing teacher training programs will improve the quality of PE instruction, ensuring that students receive effective and engaging education in sports/PA.

(4) Promoting Sports and Physical Activity for People with Disabilities

Expanding access to parasports and adaptive sports/PA programs is essential in creating a more inclusive sporting environment. Conducting awareness campaigns to challenge stereotypes and encourage participation among people with disabilities will help break down barriers and promote greater inclusivity in sports/PA.

As a conclusion, this survey provides critical insights into the current state of sports/PA participation in Tanzania. By addressing the identified barriers and implementing the recommended interventions, policymakers and stakeholders can foster a more active, healthier, and inclusive sporting culture across the country. The findings serve as a foundation for evidence-based policymaking and community-level initiatives that promote the benefits of sports/PA for all Tanzanians.

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List of Acronyms and Abbreviations

DHS	-	Demographic and Health Survey
FYDP I	-	The Tanzania Five Year Development Plan 2011/12-2015/16
FYDP II	-	National Five Year Development Plan 2016/17-2020/21
FYDP III	-	National Five Year Development Plan 2021/22-2025/26
NSCT	-	National Sports Council of Tanzania
PA	-	Physical Activity
PE	-	Physical Education
UDSM	-	University of Dar es Salaam
UMISSETA	-	Umoja wa Michezo ya Shule za Sekondari Tanzania
UMITASHUMTA	-	Umoja wa Michezo na Taaluma kwa Shule za Msingi Tanzania
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
WHO	-	World Health Organization

1. Introduction

1.1 Background of the Survey

When summarizing the indicators related to sports/physical activity (PA) mentioned in the *National Five Year Development Plan 2021/22 - 2025/26 (FYDP III)*[1], which outlines the overall current development strategy of Tanzania, the main targets for sports/PA include: (1) improving infrastructure, (2) hosting and participating in international competitions, and (3) developing athletes and students who can perform at the international level. In reviewing *FYDP I*[2] and *FYDP II*[3], it is notable that *FYDP I* does not mention sports/PA, while *FYDP II* acknowledges the current state of sports/PA but lacks numerical targets for specific indicators. This suggests that the importance of sports/PA has gained more recognition in national development strategies and policies from *FYDP II* to *FYDP III*. Moreover, Tanzania has been selected to co-host the *Africa Cup of Nations* with Kenya and Uganda in 2027. Coupled with the construction of associated stadiums, the national budget for sports/PA in 2024 has increased by 705% compared to the previous year[4]. For these reasons, it can be said that Tanzania is actively seeking to enhance its international competitiveness in sports.

However, there remain several challenges for promoting sports/PA at the grassroots level. Physical Education (PE) in schools, which provides a foundation for promoting sports/PA in the country, is not a compulsory subject in secondary schools and is not attended by all students. In primary schools, it is combined with art education under the subject name *Arts and Sports*, but teachers who were educated between 2001 and 2010—when PE departments were absent from all schools[5]—have little experience with PE, making it difficult to ensure high-quality PE instruction. On the other hand, the national tournaments for primary schools, *UMITASHUMTA*, and for secondary schools, *UMISSETA*, have made significant contributions for promoting sports/PA at the school level. Nevertheless, these tournaments are also aimed at identifying talent and enhancing competitive skills, with players selected from individual schools. As a result, children who are less skilled in or averse to sports/PA may not benefit from these opportunities. Similar challenges seem to exist for adults as well. The National Sports Council of Tanzania (NSCT)[6], in its *National Sports Council Strategic Plan for the Year 2016-2023*, highlights that sports/PA participation rates are particularly low among women and people with disabilities.

Furthermore, the worsening of non-communicable diseases associated with sedentary lifestyle habits is seen as a growing problem within Tanzania. In the *National Strategic Plan for Prevention and Control of Non-Communicable Diseases 2021-2026*, the Ministry of Health, Community Development, Gender, Elderly and Children[7] states that 33% of all deaths in Tanzania in 2016 were due to non-communicable diseases. The ministry attributes this to the negative effects of globalization, rapid urbanization, widespread smoking and alcohol consumption, changes in lifestyle, and unhealthy diets. To address these causes, the Ministry of Health[8] has published *Guidelines on Physical Activity and Sedentary Behavior* to encourage people to improve their exercise habits. The World Health Organization (WHO)[9] has also formulated *The Global Action Plan on Physical Activity 2018-2030* and is working to address non-communicable diseases, highlighting that this is a global health issue, not limited to Tanzania. However, in Tanzania, there is a lack of systematic evidence on the actual exercise habits of its citizens—in other words, there is limited basic data on the extent to which Tanzanians are participating in sports/PA.

1 Ministry of Finance and Planning. (2021). National Five Year Development Plan 2021/22-2025/26.
2 President's Office, Planning Commission. (2011). The Tanzania Five Year Development Plan 2011/12-2015/16.
3 Ministry of Finance and Planning. (2016). National Five Year Development Plan 2016/17-2020/21.
4 Omary, M. (2024, May 24). Tanzania's Afcon bid boosts Sports budget up by 705 percent. https://www.thecitizen.co.tz/tanzania/news/sports/tanzania-s-afcon-bid-boosts-sports-budget-up-by-705-percent--4633182 (Accessed: 01/09/2024).
5 Maro, C. (2011). Purpose of Physical Education as Perceived by PE Students: The Goal Orientation Approach. Papers in Education and Development, 30.
6 NSCT. (2015). National Sports Council Strategic Plan for the Year 2016-2023.
7 Ministry of Health, Community Development, Gender, Elderly and Children. (2021). National Strategic Plan for Prevention and Control of Non-Communicable Diseases 2021-2026.
8 Ministry of Health. (2022). Guidelines on Physical Activity and Sedentary Behavior.
9 World Health Organization. (2018). The Global Action Plan on Physical Activity 2018-2030.

It is well-known that participation in sports/PA contributes to the maintenance and improvement of personal health, while also enhancing mental stability and providing recreation. From a social perspective, numerous studies have demonstrated that sports/PA have a positive impact on strengthening social connections, improving educational outcomes such as rule compliance, good citizenship, and fostering trust in each other, and promoting economic development in general. Therefore, strategies to encourage active participation in sports/PA are essential.

The foundation for addressing the above issues lies in government guidelines and policies. When examining the current state of Tanzania's sports/PA, the first consideration that comes to mind is the *National Sports Policy* of the Ministry of Culture, Arts and Sports[10]. This policy was formulated in 1995, and now, nearly 30 years later, it is due for revision as considerable economic, environmental and socio-political changes have taken place since then. Additionally, the *National Sports Council Strategic Plan for the Year 2016-2023* also requires review to adapt to the current development in the sport industry. Understanding the current state of public participation in sports/PA and developing more comprehensive and effective policies and strategies for promoting sports/PA will help address the key issues outlined in this report. Moreover, this understanding and acknowledgement of the existing status of sports/PA participation will support and promote the work of practitioners responsible for promoting sports/PA in local communities.

1.2 Survey Objectives

This report aims to provide a comprehensive overview of the population's participation in sports/PA, along with insights into the key demographic factors that influence sports/PA participation. It also offers suggestions on the general trends of sports participation in Tanzania with the focus of improving participation. We hope this report will be useful to policymakers, stakeholders, and community leaders in effectively promoting sports/PA across Tanzania.

10 Ministry of Culture, Arts and Sports. (1995). National Sports Policy.

2. Methodology

2.1 Sample Design

The sampling method used in this study was stratified sampling based on region and age. First, the sample size for each region was determined based on the population data from the *Tanzania Population and Housing Census 2022*, published by the National Bureau of Statistics Tanzania[11]. Following this, the sampling numbers by age were determined using data from the *World Population Prospects 2024*, compiled by the Department of Economic and Social Affairs in the Population Division of the United Nations[12], specifically referencing data for Tanzania in 2023. However, since it was considered difficult for children to respond, individuals under the age of 14—defined as "Young People" in the *Tanzania Population and Housing Census 2022* by the National Bureau of Statistics Tanzania[13]—were excluded from the survey. Only individuals aged 15 and over were included in the study. An effort was made to achieve a 50:50 male/female ratio. Table 2-1 provides an overview of the subjects.

11 National Bureau of Statistics Tanzania. (2022). Tanzania Population and Housing Census 2022.

12 United Nations. (2024). World Population Prospects 2024. https://population.un.org/wpp/Download/Standard/Population/ (Accessed: 01/09/2024).

13 National Bureau of Statistics Tanzania. (2022). Tanzania Population and Housing Census 2022.

Table 2-1. Overview of the Subjects for This Survey

Indicator		Number (People)	Percentage (%)
Gender	Female	1,125	48.08
	Male	1,215	51.92
	Total	2,340	100
Region	Arusha	77	3.29
	Dar es Salaam	231	9.87
	Dodoma	103	4.40
	Geita	97	4.14
	Iringa	60	2.56
	Kagera	126	5.38
	Katavi	30	1.28
	Kigoma	122	5.25
	Kilimanjaro	89	3.80
	Lindi	39	1.67
	Manyara	71	3.03
	Mara	82	3.50
	Mbeya	81	3.46
	Morogoro	105	4.49
	Mtwara	64	2.73
	Mwanza	131	5.60
	Njombe	31	1.32
	Pwani	63	2.69
	Rukwa	60	2.56
	Ruvuma	73	3.12
	Shinyanga	74	3.16
	Simiyu	72	3.08
	Singida	78	3.33
	Songwe	51	2.18
	Tabora	116	4.96
	Tanga	114	4.87
	Kaskazini Unguja	15	0.64
	Kusini Unguja	14	0.60
	Mjini Magharibi	40	1.71
	Kaskazini Pemba	15	0.64
	Kusini Pemba	16	0.68
	Total	2,340	100
Age	Mean±SD 36.4±16.8	Median 32.0	
	15-29	1,044	44.62
	30-44	623	26.62
	45-59	382	16.32
	60-74	243	10.38
	75-	48	2.06
	Total	2,340	100

2.2 Questionnaires

The survey items were developed based on those used in similar surveys conducted in other countries. The countries and organizations referenced include the *National Sport and Physical Activity Participation Report October 2023* from AusPlay[14] in Australia, the *Summary of the 2022 Public Opinion Survey on the State of Sports Implementation* from the Japan Sports Agency[15], *The Active Lives Survey* from Sport England[16] in the UK, and the *2023 National Health Interview Survey (NHIS) Questionnaire* from the National Center for Health Statistics[17] in the US. The questions and answer options were selected and modified to fit the context in Tanzania. Table 2-2 lists the specific questions. Each question was initially written in English, translated into Swahili by a research collaborator at the University of Dar es Salaam (UDSM), and then proofread by a Swahili expert at UDSM.

Table 2-2. Survey Items

Categories	Contents
1. Attribute	Age
	Gender
	Religion
	Residential area (region and district)
	Educational attainment
	Disability
	Illnesses in the past 12 months
2. Situation	Participation situation for sports/PA
	Types of sports/PA being participated
	(To the people play) Purpose of participating sports/PA
	(To the people don't play) Factors that discourage participating sports/PA
	Place to participate sports/PA
	Group to participate sports/PA
3. Self-assessment	Perceived health status (5-point Likert scale)
	Perceived physical strength (5-point Likert scale)
	Perceived insufficiency of PA (5-point Likert scale)
	Satisfaction with PA participation (5-point Likert scale)
	Preference for PA (5-point Likert scale)
4. General	Benefits of sports/PA
	Sporting events to be sought in the future
	Other else

For the items classified under "2. Situation," we referred to the examples from other countries described in section 2.2 and provided multiple options for each item. Respondents were allowed to select multiple choices for all items, except for the question on the "Participation situation for sports/PA." For the items classified under "3. Self-assessment," responses were obtained using a 5-point Likert scale, with 5 representing the most positive response. For the items classified under "4. General," we again referred to the examples from other countries described in section 2.2, provided multiple options for each item, and gathered responses accordingly.

14 AusPlay. (2023). National Sport and Physical Activity Participation Report October 2023. https://www.clearinghouseforsport.gov.au/research/ausplay/results (Accessed: 01/09/2024).

15 Japan Sports Agency. (2023). Summary of the 2022 "Public Opinion Survey on the State of Sports Implementation" (in Japanese). https://www.mext.go.jp/sports/b_menu/houdou/jsa_00133.html (Accessed: 01/09/2024).

16 Sport England. (2023). The Active Lives Survey. https://activelives.sportengland.org/ (Accessed: 01/09/2024).

17 National Center for Health Statistics. (2023). 2023 National Health Interview Survey (NHIS) Questionnaire. https://www.cdc.gov/nchs/nhis/index.htm (Accessed: 01/09/2024).

2.3 Data Processing

To collect the data, survey assistants visited each region and interviewed citizens who had scheduled appointments with them. The survey assistants conducted the interviews using their smartphones while entering the information into a web form. In areas without internet access, the interviews were conducted using paper questionnaires, which participants filled out during the interviews. The survey assistants later entered the responses into the web form after moving to an area with internet access.

Before data collection began, the survey group obtained clearance from the UDSM (Approved Number: SOED-PESS 24032). On the mainland, NSCT distributed letters to each region, granting the survey assistants permission to conduct the survey in their respective regions. In Zanzibar, the NSCT sent a letter to the Zanzibar National Sports Council, which then distributed a similar letter to each region. The survey was conducted in three phases. Table 2-3 shows the period and regions covered in each phase.

Table 2-3. Period and Regions of Each Phase

Phase	Period	Regions
Phase 1	February, 2024	Dar es Salaam, Dodoma, Morogoro, Mwanza, and Tanga
Phase 2	May, 2024	Arusha, Manyara, Mara, Mbeya, Njombe, Ruvuma, Shinyanga, Simiyu, Singida, Songwe, and Tabora
Phase 3	June, 2024	Geita, Iringa, Kagera, Katavi, Kigoma, Kilimanjaro, Lindi, Mtwara, Pwani, Rukwa, Kaskazini Unguja, Kusini Unguja, Mjini Magharibi, Kaskazini Pemba, and Kusini Pemba

2.4 Survey Assistants

Graduate students majoring in PE and sports science at UDSM were employed as survey assistants. All survey assistants held bachelor's degrees. Depending on the number of survey subjects in each phase, 22 survey assistants were assigned in Phase 1, 26 in Phase 2, and 27 in Phase 3, with some assistants participating in multiple phases.

All survey assistants underwent a one-day training session at UDSM before visiting their assigned regions. The training included lectures using a manual that covered topics such as an overview of the Japan International Cooperation Agency and NSCT, the objectives of the survey, and the procedures for conducting the survey. Following the lectures, a pre-survey was conducted on the university campus, where each research assistant worked with three survey subjects. After the pre-survey was completed, the training participants shared their reflections and identified areas for improvement. The data collected during this pre-survey was not included in the results of the main survey. Survey assistants who participated in multiple phases received additional training prior to each phase.

2.5 Method of Analysis

In accordance with Table 2-2, for "1. Attribute," the age of respondents was classified into seven groups: (1) 15-24, (2) 25-34, (3) 35-44, (4) 45-54, (5) 55-64, (6) 65-74, and (7) 75 and above. For gender, all respondents identified as either female or male, so it was categorized into these two groups. Regarding religion, while there were some responses for smaller religious groups, only religions with 10 or more responses were included in the analysis, with Christian and Muslim being the two religions analyzed. As for residential locations, comparisons between regions were determined to be difficult due to sample size constraints, so area groups were created based on the regional classifications used in the *Demographic and Health Survey (DHS)*[18]. The composition of each area group is shown in Table 2-4, resulting in nine area groups. Regarding districts, the responding districts were classified into two groups: municipal councils and district councils. In terms of educational attainment, we categorized respondents based on the last level of education completed or the degree obtained, forming six groups: (1) not graduated from school, (2) graduated from primary school, (3) graduated from O-level, (4) graduated from A-level, (5) certificate or diploma holders, and (6) bachelor's, master's, or doctoral degree holders. For disability, participants

18 DHS. (2022). Tanzania Demographic and Health Survey and Malaria Indicator Survey 2022: Key Indicators. https://dhsprogram.com/pubs/pdf/PR144/PPR144.pdf (Accessed: 01/09/2024).

were classified into two groups: with or without disability. Regarding illnesses in the past 12 months, participants were similarly classified into two groups: those who had an illness within the past 12 months and those who did not.

Table 2-4. Configuration of Each Area Group

Area groups	Regions
Central	3 regions: Dodoma, Manyara and Singida
Eastern	3 regions: Dar es Salaam, Morogoro and Pwani
Lake	6 regions: Geita, Kagera, Mara, Mwanza, Simiyu and Shinyanga
Northern	3 regions: Arusha, Kilimanjaro and Tanga
Southern	2 regions: Lindi and Mtwara
Southern Highlands	3 regions: Iringa, Njombe and Ruvuma
South West Highlands	4 regions: Katavi, Mbeya, Rukwa and Songwe
Western	2 regions: Kigoma and Tabora
Zanzibar	5 regions: Kaskazini Unguja, Kusini Unguja, Mjini Magharibi, Kaskazini Pemba and Kusini Pemba

Regarding the analysis method, first, for the items classified under “2. Situation,” the responses were compiled, and then cross-tabulation tables were created based on the five perspectives, excluding Disability and Illnesses in the past 12 months from “1. Attribute.” Chi-square tests were conducted to determine if there were significant differences. When significant differences were found, residual analysis was performed to identify which cells contributed to these differences. According to the residual analysis, if the absolute value of the adjusted residual is equal to or greater than 1.96 (the 5% standard normal deviation), it was considered significant. However, in this analysis, the Bonferroni correction was applied to account for the effects of multiple comparisons. Specifically, the significance level was adjusted according to the number of comparisons, and the adjusted residuals were interpreted based on the corrected significance level. Therefore, in analyses requiring multiple comparisons, we focused on cells where the absolute value of the adjusted residual was equal to or greater than the standard normal deviation corresponding to the corrected significance level. Effect size was measured using Cramer’s V or φ (0.10 = small, 0.30 = medium, 0.50 = large). The results of this analysis are presented in Chapter 3.

Next, for the items classified under “3. Self-assessment,” responses were obtained using a 5-point Likert scale. We examined the differences in these responses based on all the perspectives outlined in “1. Attribute.” Given the nature of the 5-point Likert scale, nonparametric tests were applied. Specifically, Mann-Whitney U tests were used to compare two groups (gender, religion, municipal councils or district councils, disability, and illness in the past 12 months). Effect size was measured using r (0.10 = small, 0.30 = medium, 0.50 = large). For comparisons among three or more groups (age, area group, and educational attainment), the Kruskal-Wallis test was performed. For items where significant differences were found, multiple comparisons were conducted using the Steel-Dwass test. It should be noted that both the Mann-Whitney U test and the Kruskal-Wallis test are based on mean rank comparisons. As such, due to potential differences in data variance and distribution, the effects of sample size, or the overlap between ranks, a group with a higher average rank is not necessarily statistically higher. However, in this report, the figures and tables summarize the mean ± standard deviation to facilitate easier understanding of the differences and characteristics of the scores. The survey results are presented in Chapter 4.

The survey was conducted to provide information for shaping future policies on the “benefits of sports/PA” and “sporting events to be sought in the future,” which are classified under “4. General.” As a result, no statistical comparisons were made for each item. Instead, only an overview of the general trends and gender differences was summarized in a graph. The survey results are presented in Chapter 5.

In all these analyses, statistical significance was primarily defined as $p < 0.05$. However, in cases where multiple comparisons were performed, the statistical significance of each comparison was determined based on the significance level after applying the Bonferroni correction. The statistical analysis software IBM SPSS Statistics Version 28 was mainly used for the statistical processing, while R was used specifically for the Steel-Dwass test.

3. Overall Picture and Demographic Comparison of Playing Aspects

This chapter presents an overall picture of Tanzanian participation in sports/PA as revealed by this survey. It also highlights differences across various demographic factors, providing a clearer understanding of the current situation in Tanzania.

3.1 Overall Picture and Gender Difference

3.1.1 Participation Situation for Sport and Physical Activity

Figure 3-1. Overall and Gender Differences of Participation Rates of Sports/PA

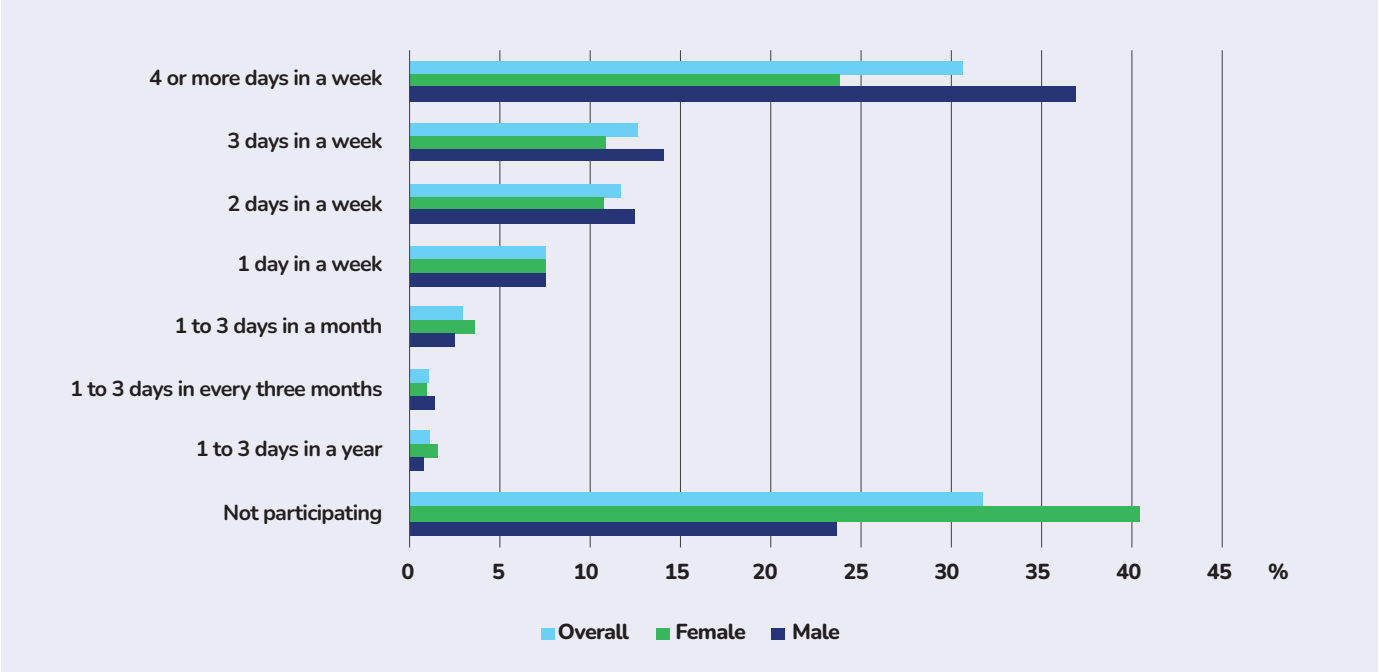

Table 3-1. Overall and Gender Differences in Participation Rates of Sports/PA

	Number (Standardized residual)		χ^2	φ
	Female	Male		
4 or more days in a week	269 (-6.836)	449 (6.836)	95.651**	0.202
3 days in a week	124 (-2.279)	172 (2.279)		
2 days in a week	121 (-1.381)	153 (1.381)		
1 day in a week	86 (-0.066)	92 (0.066)		
1 to 3 days in a month	41 (1.405)	32 (-1.405)		
1 to 3 days in every three months	11 (-1.100)	18 (1.100)		
1 to 3 days in a year	18 (1.727)	10 (-1.727)		
Not participating	455 (8.646)	289 (-8.646)		

* $p < .00312$, ** $p < .001$

Figure 3-1 and Table 3-1 present the survey results on the overall participation rates in sports/PA, as well as the gender differences. The percentage of people who reported, “I participate in sports/PA at least once a week” was 62.7% (53.3% of women, 71.3% of men). Including this, the percentage of people who answered, “I participate in sports/PA at least once a year” was 68.2% (59.6% of women, 76.2% of men). Conversely, the percentage of people who answered, “I do not participate in sports/PA” was 31.8% (40.4% of women, 23.8% of men).

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00312$, with absolute values of adjusted residuals > 2.95 considered significant. The items showing significant gender differences in this statistical analysis were as follows:

- 4 or more days in a week: Significantly higher in male
- Not participating: Significantly higher in female

3.1.2 Types of Sports and Physical Activity Participation

Figure 3-2. Overall and Gender Differences in Types of Sports/PA Participation

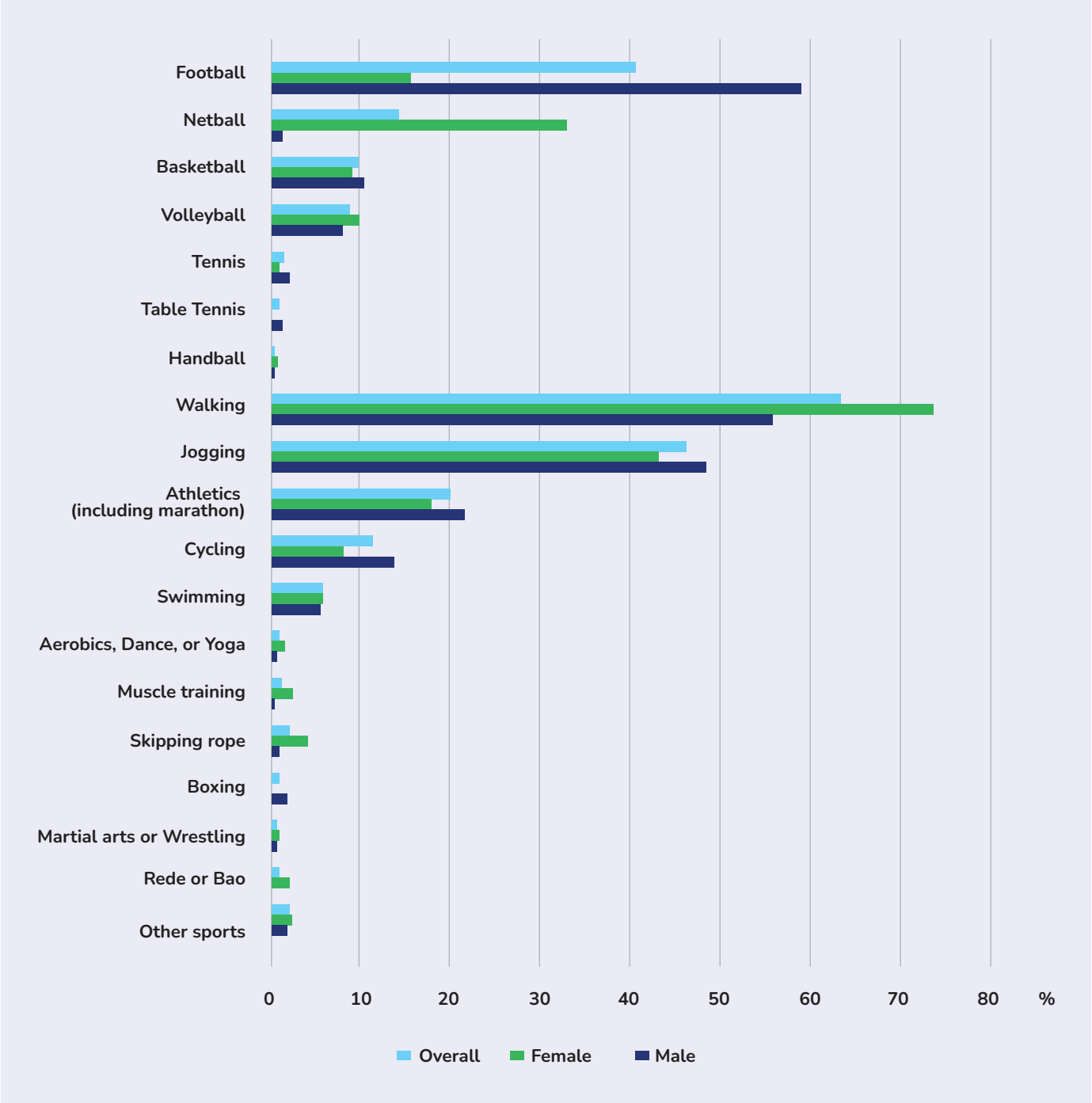

Table 3-2. Analysis Results of Gender Differences in Types of Sports/PA Participation

	Number (Standardized residual)		χ^2	φ
	Female	Male		
Football	107 (-17.501)	557 (17.501)	306.276**	0.431
Netball	227 (17.930)	12 (-17.930)	321.489**	-0.441
Basketball	64 (-0.755)	99 (0.755)	0.570	0.019
Volleyball	69 (1.340)	77 (-1.340)	1.795	-0.033
Walking	505 (7.210)	530 (-7.210)	51.982**	-0.177
Jogging	295 (-2.197)	459 (2.197)	4.825*	0.054
Athletics (including marathon)	123 (-1.859)	205 (1.859)	3.455	0.046
Cycling	56 (-3.556)	131 (3.556)	12.648**	0.088
Swimming	40 (0.105)	54 (-0.105)	0.011	-0.003

* $p < .05$, ** $p < .001$

Figure 3-2 and Table 3-2 present the survey results on the overall participation and gender differences in types of sports/PA. Respondents were allowed to select multiple options. Figure 3-2 shows the percentage of each response, excluding those who selected "not participated," indicating they did not participate in any sports/PA. Types of sports/PA for which the total number of responses was fewer than 10 were categorized as "other sports" in Figure 3-2. The top five types of sports/PA with the highest percentage of respondents were:

- 1st place: Walking (63.5%)
- 2nd place: Jogging (46.3%)
- 3rd place: Football (40.7%)
- 4th place: Athletics (including marathon) (20.1%)
- 5th place: Netball (14.7%).

The following items showed significant gender differences in the statistical analysis of items with a response rate of 5% or more:

- Football: Significantly higher in male
- Netball: Significantly higher in female
- Walking: Significantly higher in female
- Jogging: Significantly higher in male
- Cycling: Significantly higher in male

3.1.3 Factors that Promote or Discourage Participation in Sports and Physical Activity

Figure 3-3. Overall and Gender Differences in Factors for Participation in Sports/PA

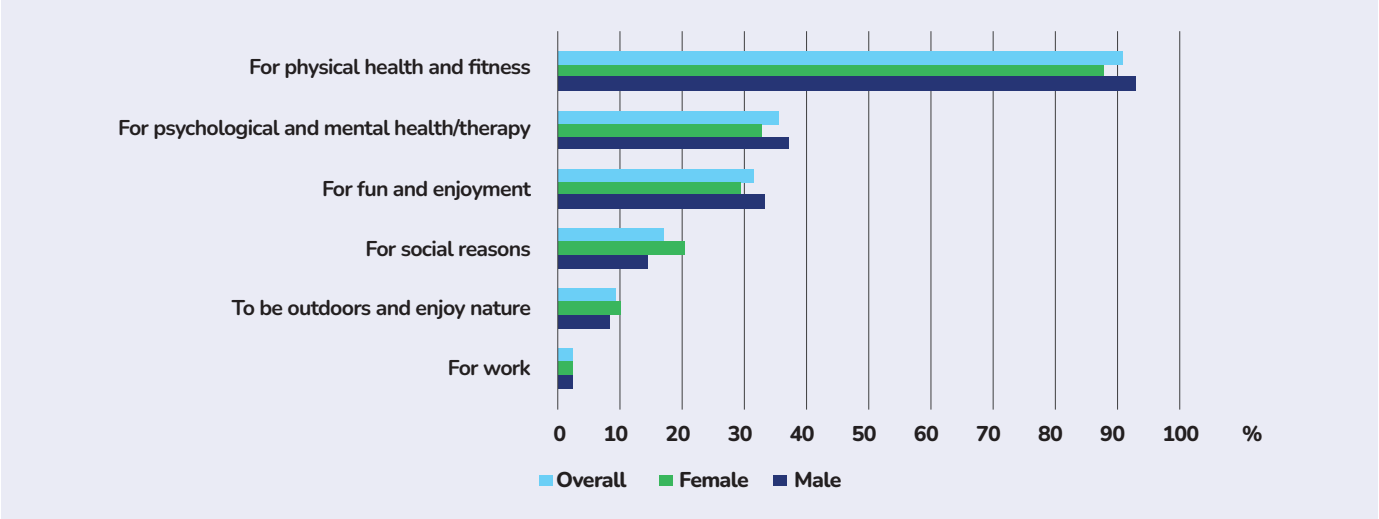

Table 3-3. Analysis Results of Gender Differences in Factors for Participation in Sports/PA

	Number (Standardized residual)		χ^2	φ
	Female	Male		
For physical health and fitness	526 (-3.270)	805 (3.270)	10.691**	0.085
For psychological and mental health/therapy	198 (-1.600)	322 (1.600)	2.561	0.042
For fun and enjoyment	175 (-1.615)	288 (1.615)	2.607	0.042
For social reasons	123 (3.139)	124 (-3.139)	9.852**	-0.082
To be outdoors and enjoy nature	61 (1.235)	72 (-1.235)	1.524	-0.032
For work	15 (0.393)	19 (-0.393)	0.154	-0.010

* $p < .05$, ** $p < .001$

Figure 3-3 and Table 3-3 present the survey results on the overall participation and gender differences regarding factors that promote participation in sports/PA. The survey focused on respondents who answered, "I participate in sports/PA at least once a week." Participants were allowed to select multiple responses. Figure 3-3 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation factors with a total response count of 30 or more. The top five factors for participating in sports/PA were:

- 1st place: For physical health and fitness (90.8%)
- 2nd place: For psychological and mental health/therapy (35.5%)
- 3rd place: For fun and enjoyment (31.6%)
- 4th place: For social reasons (16.8%)
- 5th place: To be outdoors and enjoy nature (9.1%)

The items showing significant gender differences in this statistical analysis were as follows:

- For physical health and fitness: Significantly higher in male
- For social reasons: Significantly higher in female

Figure 3-4. Overall and Gender Differences in Obstacles for Participation in Sports/PA

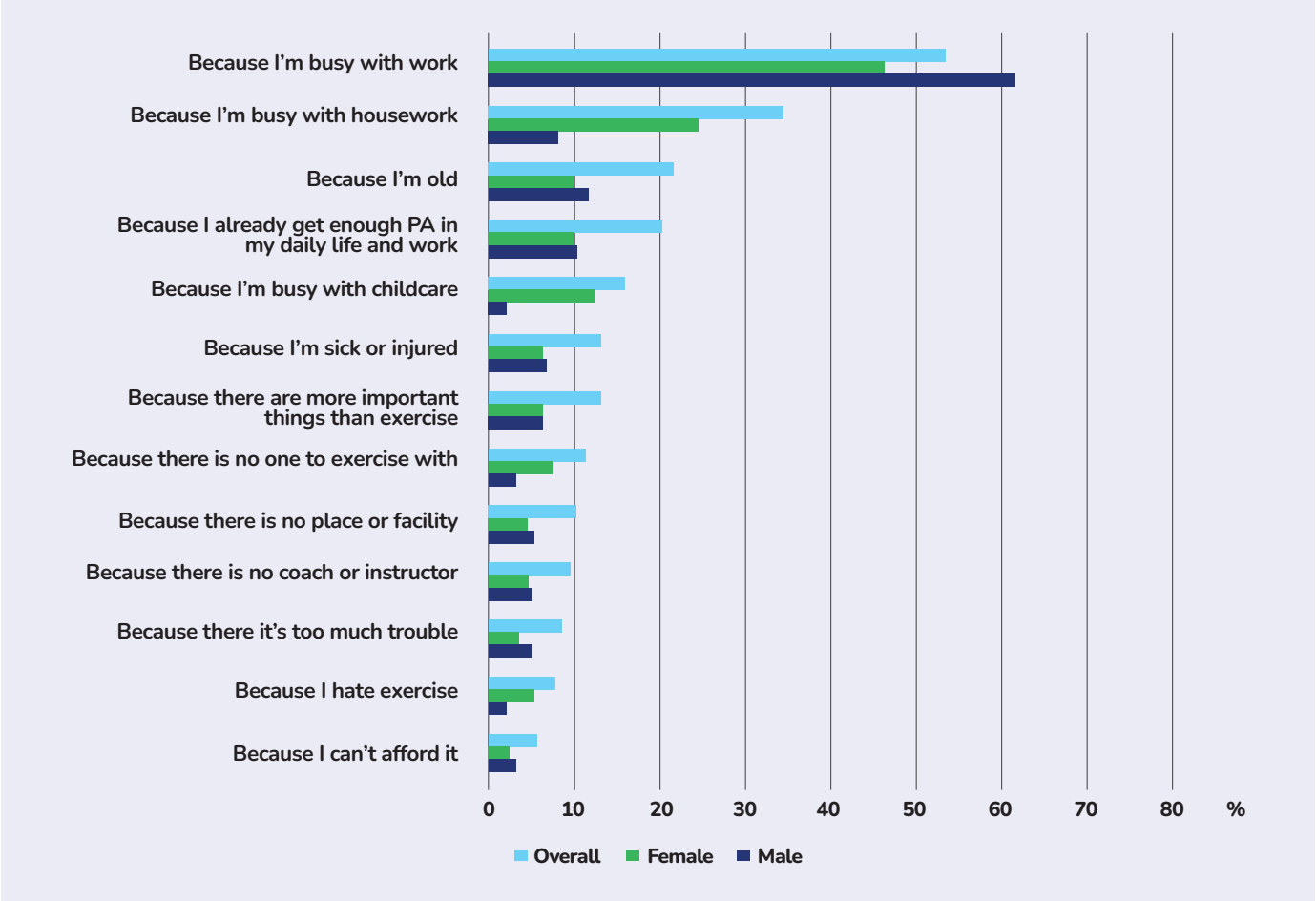

Table 3-4. Analysis Results of Gender Differences in Obstacles for Participation in Sports/PA

	Number (Standardized residual)		χ^2	φ
	Female	Male		
Because I'm busy with work	385 (-6.412)	414 (6.412)	41.111**	0.176
Because I'm busy with housework	204 (8.384)	56 (-8.384)	70.289**	-0.230
Because I'm old	83 (-1.197)	80 (1.197)	1.434	0.033
Because I already get enough PA in my daily life and work	84 (-0.197)	70 (0.197)	0.039	0.005
Because I'm busy with childcare	106 (7.367)	16 (-7.367)	54.277**	-0.202
Because I'm sick or injured	54 (-0.383)	47 (0.383)	0.147	0.011
Because there are more important things than exercise	54 (-0.154)	45 (0.154)	0.024	0.004
Because there is no one to exercise with	63 (3.466)	23 (-3.466)	12.013**	-0.095
Because there is no place or facility	40 (-0.733)	38 (0.733)	0.538	0.020
Because there is no coach or instructor	39 (-0.460)	35 (0.460)	0.212	0.013
Because it's too much trouble	31 (-1.263)	34 (1.263)	1.595	0.035
Because I hate exercise	46 (3.236)	15 (-3.236)	10.475**	-0.089
Because I can't afford it	23 (-0.573)	22 (0.573)	0.329	0.016

* $p < .05$, ** $p < .001$

Figure 3-4 and Table 3-4 present the survey results on the overall participation and gender differences regarding obstacles to participation in sports/PA. The survey targeted respondents who answered, "I participate in sports/PA less than once a week." Participants were allowed to select multiple responses. Figure 3-4 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation obstacles with a total response count of 30 or more. The top five obstacles to participating in sports/PA were:

- 1st place: Because I'm busy with work (60.3%)
- 2nd place: Because I'm busy with housework (39.3%)
- 3rd place: Because I'm old (24.6%)
- 4th place: Because I already get enough PA in my daily life and work (23.3%)
- 5th place: Because I'm busy with childcare (18.4%)

The items showing significant gender differences in this statistical analysis were as follows:

- Because I'm busy with work: Significantly higher in male
- Because I'm busy with housework: Significantly higher in female
- Because I'm busy with childcare: Significantly higher in female
- Because there is no one to exercise with: Significantly higher in female
- Because I hate exercise: Significantly higher in female

3.1.4 The Places where People Participate in Sports and Physical Activity

Figure 3-5. Overall and Gender Differences in Places where Sports/PA are Practiced

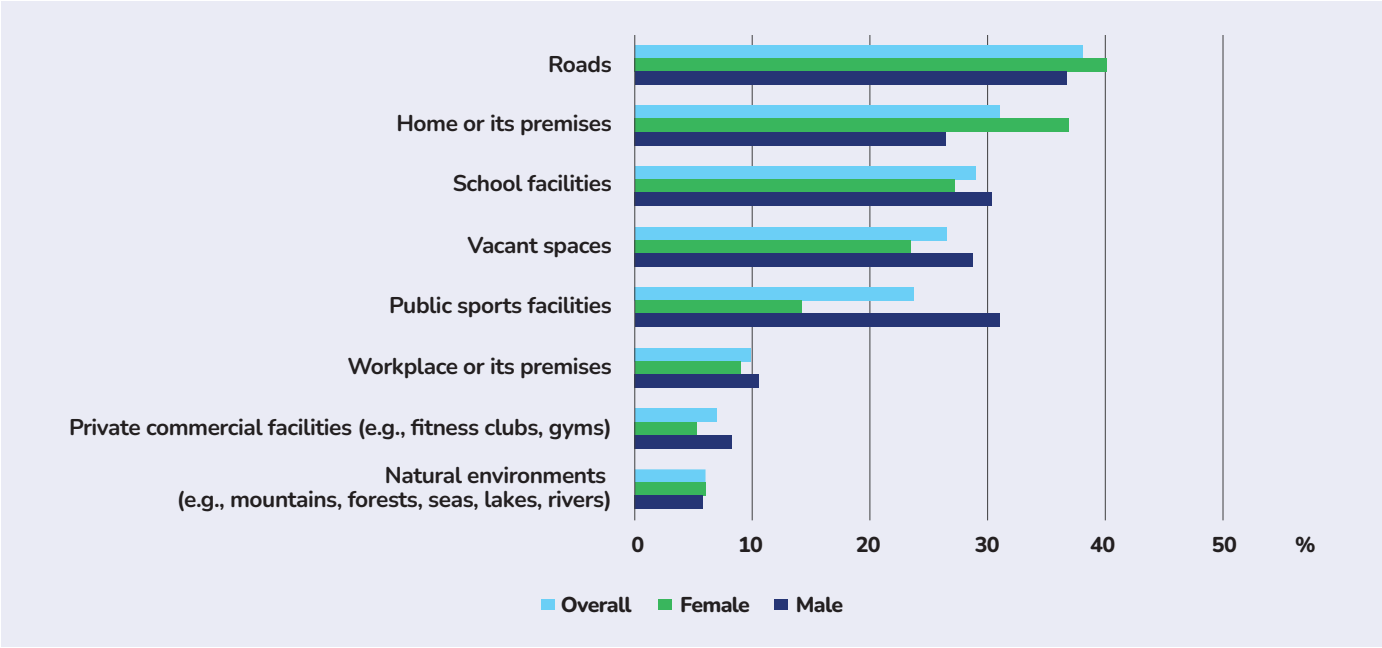

Table 3-5. Analysis Results of Gender Differences in Places where Sports/PA are Practiced

	Number (Standardized residual)		χ^2	φ
	Female	Male		
Roads	300 (1.418)	360 (-1.418)	2.010	-0.034
Home or its premises	277 (4.707)	259 (-4.707)	22.154**	-0.113
School facilities	203 (-1.489)	298 (1.489)	2.218	0.036
Vacant spaces	177 (-2.434)	283 (2.434)	5.925*	0.058
Public sports facilities	107 (-8.127)	305 (8.127)	66.046**	0.195
Workplace or its premises	67 (-1.145)	104 (1.145)	1.311	0.027
Private commercial facilities (e.g., fitness clubs, gyms)	40 (-2.431)	82 (2.431)	5.907*	0.058
Natural environments (e.g., mountains, forests, seas, lakes, rivers)	45 (0.082)	58 (-0.082)	0.007	-0.002

* $p < .05$, ** $p < .001$

Figure 3-5 and Table 3-5 present the survey results on the overall participation and gender differences in places where sports/PA are practiced. The survey was conducted on respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-5 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only locations with a total of 30 or more responses. The top five places where sports/PA were carried out were:

- 1st place: Roads (38.0%)
- 2nd place: Home or its premises (30.8%)
- 3rd place: School facilities (28.8%)
- 4th place: Vacant spaces (26.5%)
- 5th place: Public sports facilities (23.7%)

The items showing significant gender differences in this statistical analysis were as follows:

- Home or its premises: Significantly higher in female
- Vacant spaces: Significantly higher in male
- Public sports facilities: Significantly higher in male
- Private commercial facilities (e.g., fitness clubs, gyms): Significantly higher in male

3.1.5 Groups where People Participate in Sports and Physical Activity

Figure 3-6. Overall and Gender Differences in the Group Participating in Sports/PA

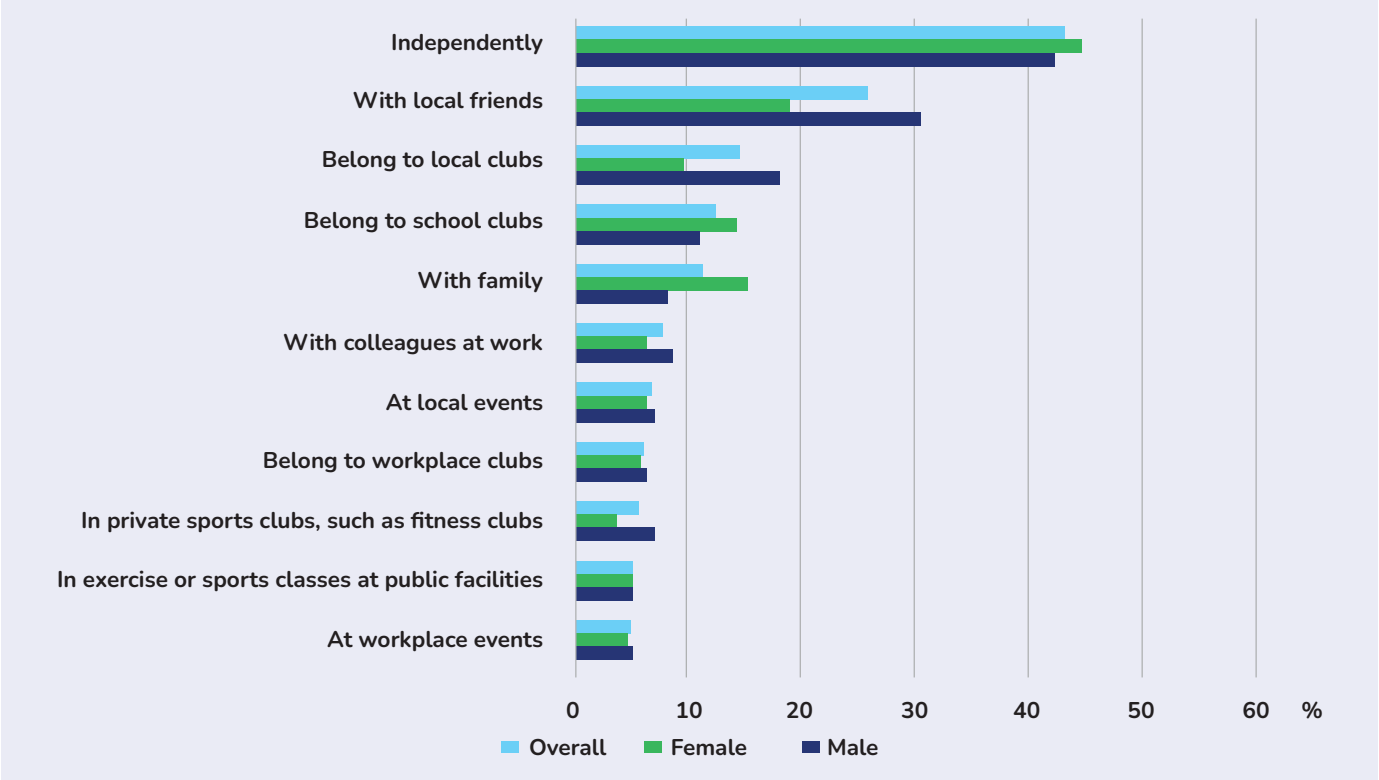

Table 3-6. Analysis Results of Gender Differences in the Group Participating in Sports/PA

	Number (Standardized residual)		χ^2	φ
	Female	Male		
Independently	333 (1.045)	434 (-1.045)	1.092	-0.026
With local friends	142 (-5.507)	314 (5.507)	30.329**	0.138
Belong to local clubs	71 (-5.074)	185 (5.074)	25.749**	0.127
Belong to school clubs	106 (2.042)	113 (-2.042)	4.171*	-0.051
With family	113 (4.647)	84 (-4.647)	21.595**	-0.117
With colleagues at work	46 (-1.898)	88 (1.898)	3.604	0.048
At local events	47 (-0.434)	70 (0.434)	0.188	0.011
Belong to workplace clubs	42 (-0.612)	64 (0.612)	0.375	0.015
In private sports clubs, such as fitness clubs	27 (-3.007)	71 (3.007)	9.040**	0.075
In exercise or sports classes at public facilities	37 (-0.006)	51 (0.006)	0.000	0.000
At workplace events	33 (-0.624)	52 (0.624)	0.390	0.016

* $p < .05$, ** $p < .001$

Figure 3-6 and Table 3-6 present the survey results on the overall participation and gender differences in the groups involved in sports/PA. The survey was conducted on respondents who participated in any sports/PA, excluding those who answered “not participated,” indicating no participation. Participants were allowed to select multiple responses. Figure 3-6 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only groups with a total of 30 or more responses. The top five groups in which sports/PA were carried out were:

- 1st place: Independently (48.2%)
- 2nd place: With local friends (28.7%)
- 3rd place: Belong to local clubs (16.1%)
- 4th place: Belong to school clubs (13.8%)
- 5th place: With family (12.4%)

The items showing significant gender differences in this statistical analysis were as follows:

- With local friends: Significantly higher in male
- Belong to local clubs: Significantly higher in male
- Belong to school clubs: Significantly higher in female
- With family: Significantly higher in female
- In private sports clubs, such as fitness clubs: Significantly higher in male

3.2 Age Difference

3.2.1 Participation Situation for Sports and Physical Activity

Figure 3-7. Age Differences in Participation Rates of Sports/PA

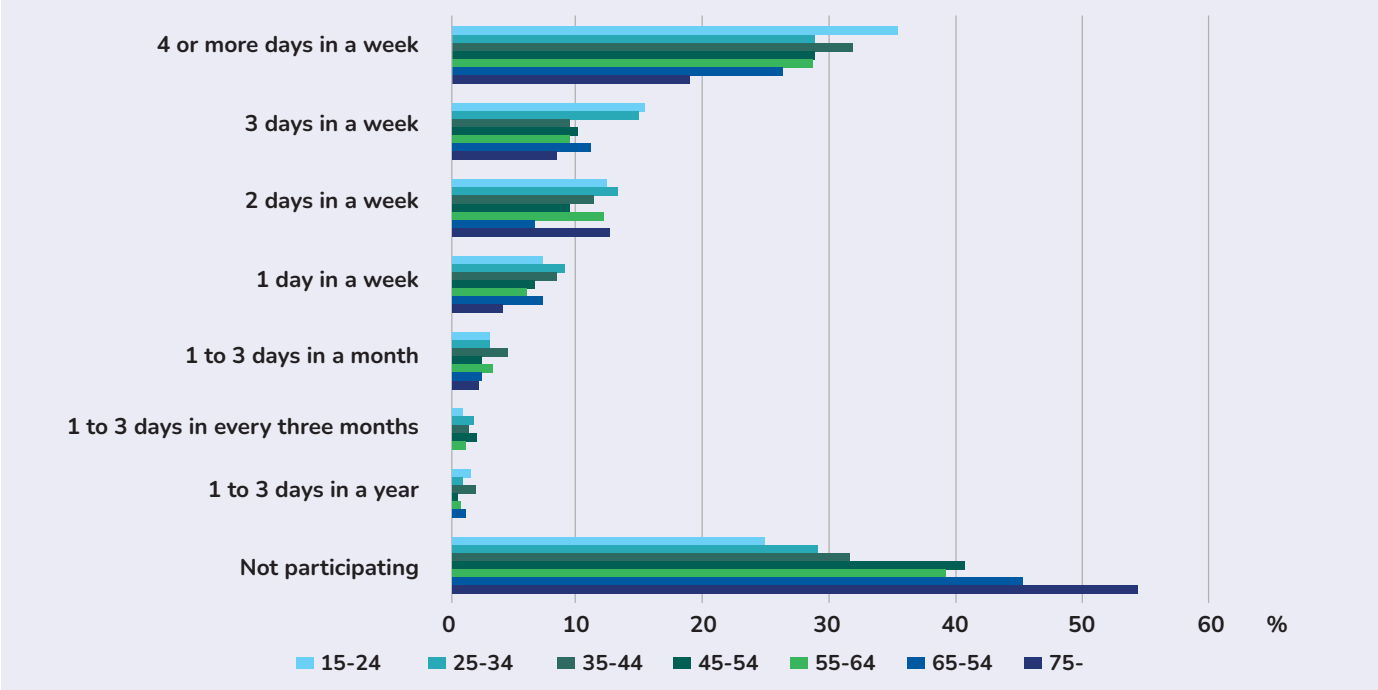

Table 3-7. Analysis Results of Age Differences in Sports/PA Participation Rates

	Number (Standardized residual)							χ^2	Cramer's V
	15-24	25-34	35-44	45-54	55-64	65-74	75-		
4 or more days in a week	247 (3.060)	175 (-1.273)	112 (0.462)	61 (-0.632)	71 (-0.785)	43 (-1.286)	9 (-1.811)	85.375**	0.191
3 days in a week	107 (2.452)	90 (1.800)	33 (-2.025)	21 (-1.260)	23 (-1.714)	18 (-0.669)	4 (-0.909)		
2 days in a week	87 (0.657)	80 (1.238)	40 (-0.240)	20 (-1.081)	30 (0.176)	11 (-2.066)	6 (0.172)		
1 day in a week	51 (-0.421)	55 (1.513)	29 (0.468)	14 (-0.578)	15 (-0.997)	12 (-0.145)	2 (-0.908)		
1 to 3 days in a month	21 (-0.242)	18 (-0.287)	16 (1.657)	5 (-0.668)	8 (0.089)	4 (-0.520)	1 (-0.417)		
1 to 3 days in every three months	6 (-1.106)	11 (1.458)	5 (0.326)	4 (0.894)	3 (-0.052)	0 (-1.488)	0 (-0.784)		
1 to 3 days in a year	11 (1.073)	5 (-1.000)	7 (1.475)	1 (-1.018)	2 (-0.694)	2 (0.028)	0 (-0.770)		
Not participating	173 (-4.892)	177 (-1.745)	111 (-0.153)	86 (2.876)	97 (2.567)	74 (3.801)	26 (3.363)		

** $p < .00089$

Figure 3-7 and Table 3-7 present the survey results on age differences in participation rates for sports/PA. The percentage of people who answered, "I participate in sports/PA at least once a week" was 70.0% for ages 15-24, 65.5% for ages 25-34, 60.6% for ages 35-44, 54.7% for ages 45-54, 55.8% for ages 55-64, 51.2% for ages 65-74, and 43.8% for ages 75 and above. Including this, the percentage of people who answered, "I participate in sports/PA at least once a year" was 75.4% for ages 15-24, 71.0% for ages 25-34, 68.6% for ages 35-44, 59.4% for ages 45-54, 61.0% for ages 55-64, 54.9% for ages 65-74, and 45.8% for ages 75 and above. Conversely, the percentage of people who answered, "I do not participate in sports/PA" was 24.6% for ages 15-24, 29.0% for ages 25-34, 31.4% for ages 35-44, 40.6% for ages 45-54, 39.0% for ages 55-64, 45.1% for ages 65-74, and 54.2% for ages 75 and above.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00089$, with absolute values of adjusted residuals > 3.27 considered significant. The items showing significant age differences in this statistical analysis were as follows:

- Not participating: Significantly higher in ages 65-74 and 75-, and significantly lower in ages 15-24

3.2.2 Types of Sports and Physical Activity Participation

Figure 3-8. Age Differences in Types of Sports/PA Participation

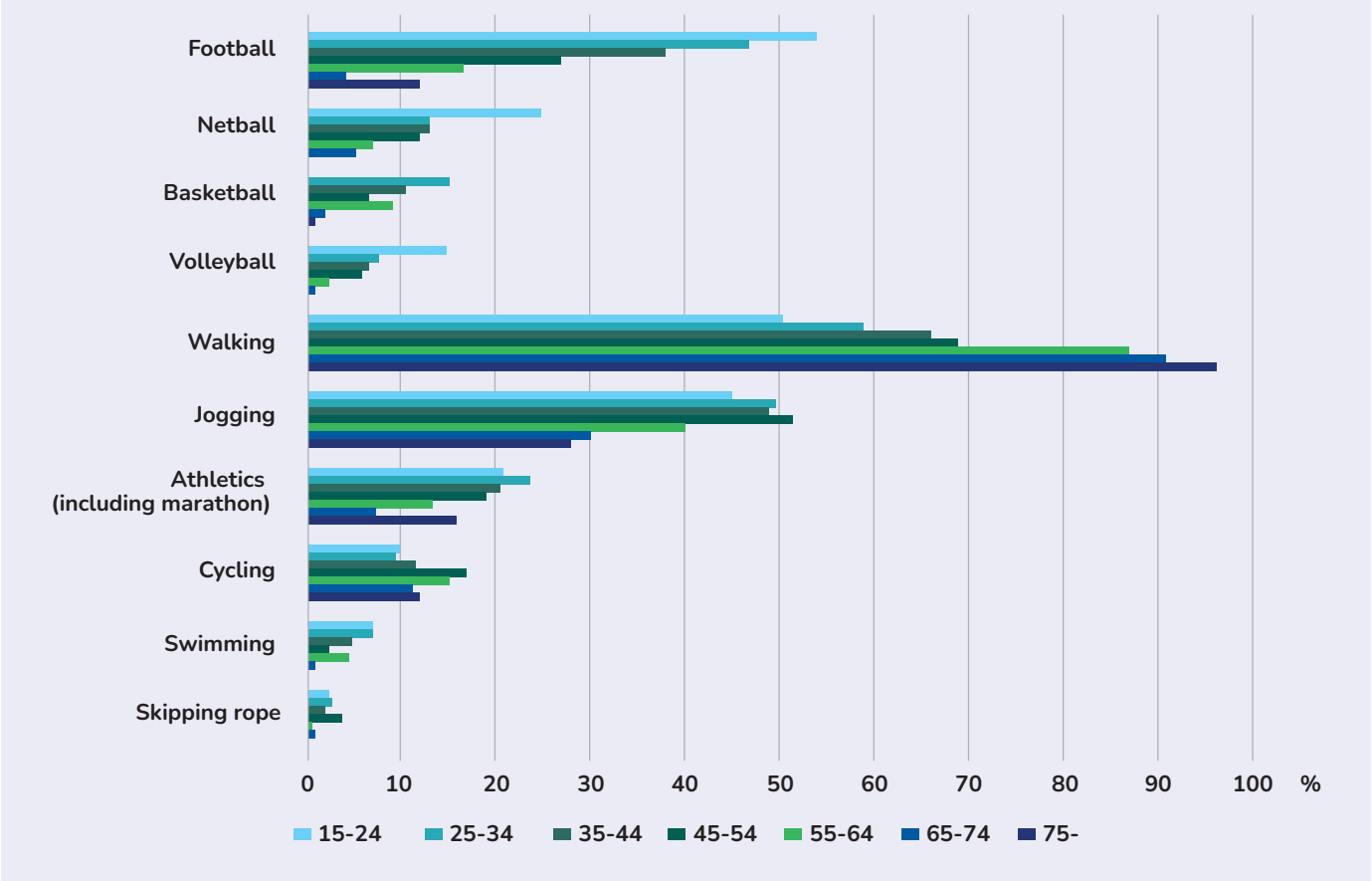

Table 3-8. Analysis Results of Age Differences in Types of Sports/PA Participation

	Number (Standardized residual)							χ^2	φ
	15-24	25-34	35-44	45-54	55-64	65-74	75-		
Football	293 (7.878)	209 (3.253)	94 (-0.862)	35 (-3.284)	26 (-6.355)	4 (-7.423)	3 (-2.899)	156.573**	0.308
Netball	134 (8.196)	58 (-1.078)	30 (-1.182)	9 (-2.578)	8 (-3.512)	0 (-4.154)	0 (-2.073)	84.797**	0.227
Basketball	83 (5.122)	47 (0.514)	17 (-1.748)	12 (-0.285)	3 (-3.516)	1 (-2.989)	0 (-1.668)	42.775**	0.161
Volleyball	81 (6.047)	35 (-0.900)	17 (-1.216)	8 (-1.150)	4 (-2.921)	1 (-2.774)	0 (-1.569)	44.950**	0.165
Walking	271 (-7.646)	263 (-2.043)	164 (1.124)	90 (1.483)	136 (6.519)	87 (5.832)	24 (3.470)	27.241**	0.108
Jogging	244 (-0.515)	222 (1.934)	122 (1.144)	67 (1.311)	63 (-1.465)	29 (-3.134)	7 (-1.787)	19.933*	0.110
Athletics (including marathon)	114 (0.751)	106 (2.358)	51 (0.264)	25 (-0.234)	21 (-2.143)	7 (-3.182)	4 (-0.488)	18.464	0.106
Cycling	55 (-1.111)	43 (-1.352)	29 (0.173)	22 (2.058)	24 (1.646)	11 (0.042)	3 (0.107)	8.548	0.072
Swimming	39 (1.800)	32 (1.551)	12 (-0.646)	3 (-1.752)	7 (-0.702)	1 (-2.027)	0 (-1.238)	12.928	0.088

* $p < .00357$, ** $p < .001$

Figure 3-8 and Table 3-8 present the survey results regarding age differences in the types of sports/PA participated in. Respondents were allowed to select multiple answers. Figure 3-8 shows the percentage of each response, divided by the number of respondents who answered something other than "not participated," indicating they participated in sports/PA, and includes only sports/PA with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00357$, with absolute values of adjusted residuals > 2.93 considered significant. The items showing significant age differences in this statistical analysis were as follows:

- Football: Significantly higher in ages 15-24 and 25-34, and significantly lower in ages 45-54, 55-64, and 65-74
- Netball: Significantly higher in ages 15-24, and significantly lower in ages 55-64 and 65-74
- Basketball: Significantly higher in ages 15-24, and significantly lower in ages 55-64
- Volleyball: Significantly higher in ages 15-24
- Walking: Significantly higher in ages 55-64, 65-74, and 75-, and significantly lower in ages 15-24
- Jogging: Significantly lower in ages 65-74

3.2.3 Factors that Promote or Discourage Participation in Sports and Physical Activity

Figure 3-9. Age Differences in Factors for Participation in Sports/PA

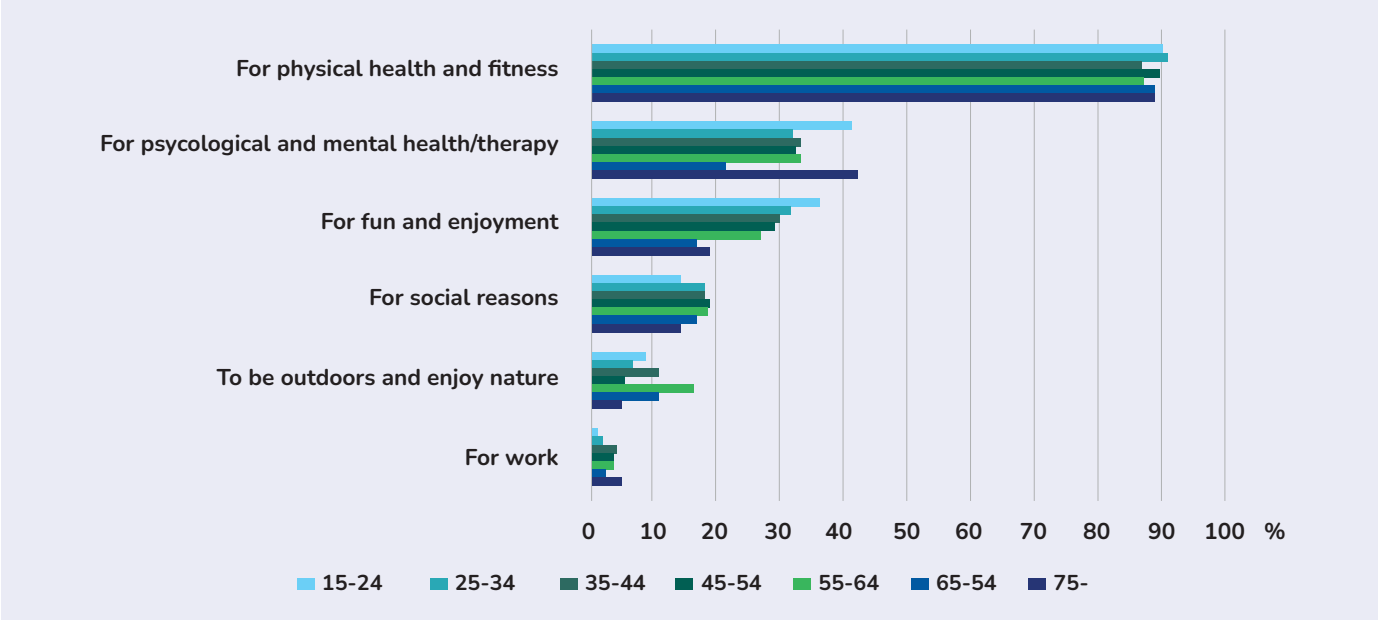

Table 3-9. Analysis Results of Age Differences in Factors for Participation in Sports/PA

	Number (Standardized residual)							χ^2	φ
	15-24	25-34	35-44	45-54	55-64	65-74	75-		
For physical health and fitness	449 (0.502)	370 (1.294)	189 (-1.431)	106 (0.181)	123 (-1.046)	75 (-0.181)	19 (-0.071)	4.188	0.053
For psychological and mental health/therapy	206 (3.655)	130 (-1.480)	72 (-0.620)	38 (-0.647)	47 (-0.442)	18 (-2.711)	9 (0.708)	18.791	0.113
For fun and enjoyment	181 (3.062)	127 (0.063)	65 (-0.426)	34 (-0.559)	38 (-1.143)	14 (-2.977)	4 (-1.249)	17.753	0.110
For social reasons	71 (-1.750)	72 (0.707)	39 (0.572)	22 (0.628)	26 (0.607)	14 (-0.001)	3 (-0.319)	3.474	0.049
To be outdoors and enjoy nature	44 (-0.117)	27 (-1.906)	23 (0.916)	6 (-1.528)	23 (3.218)	9 (0.574)	1 (-0.694)	15.672	0.103
For work	6 (-1.986)	8 (-0.502)	9 (1.979)	4 (0.839)	3 (-0.135)	4 (1.555)	0 (-0.712)	9.595	0.081

* $p < .00357$, ** $p < .001$

Figure 3-9 and Table 3-9 present the survey results on age differences regarding factors that promote participation in sports/PA. The survey focused on respondents who answered, "I participate in sports/PA at least once a week." Participants were allowed to select multiple responses. Figure 3-9 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation factors with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00357$, with absolute values of adjusted residuals > 2.93 considered significant. Therefore, no items showed significant differences in this statistical analysis.

Figure 3-10. Age Differences in Obstacles for Participation in Sports/PA

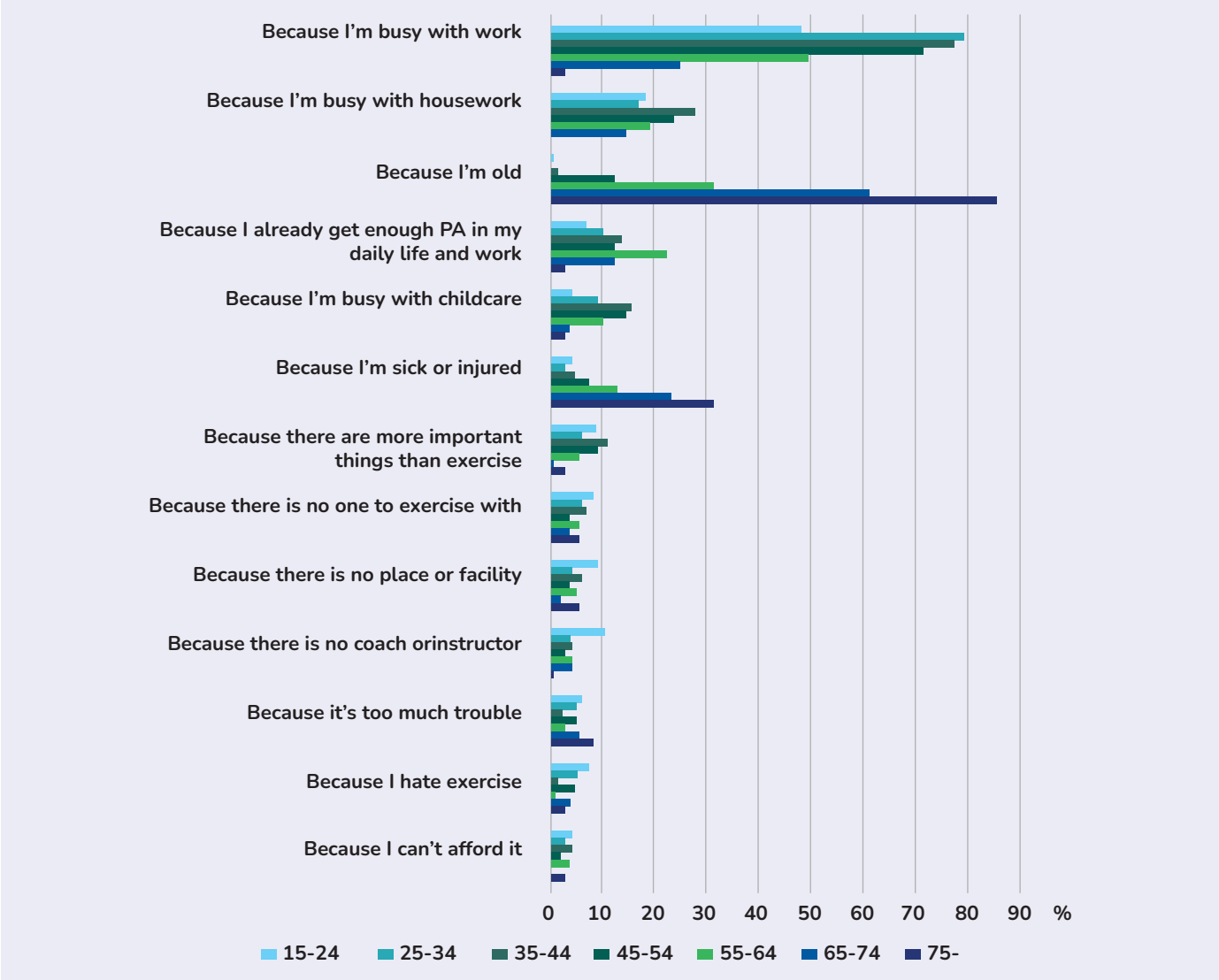

Table 3-10. Analysis Results of Age Differences in Obstacles for Participation in Sports/PA

	Number (Standardized residual)							χ^2	φ
	15-24	25-34	35-44	45-54	55-64	65-74	75-		
Because I'm busy with work	167(5.489)	274(8.422)	161(5.477)	93(2.747)	77(-2.890)	26(-7.584)	1(-7.047)	215.513**	0.403
Because I'm busy with housework	64(-0.682)	59(-1.379)	58(3.261)	3(1.272)	30(-0.094)	15(-1.350)	3(-1.670)	16.577	0.112
Because I'm old	2(-7.761)	0(-8.094)	3(-5.196)	16(-0.001)	49(7.784)	63(15.714)	30(13.395)	571.490**	0.657
Because I already get enough PA in my daily life and work	24(-3.209)	36(-0.806)	29(1.132)	16(0.253)	35(4.525)	13(0.326)	1(-1.641)	30.008**	0.151
Because I'm busy with childcare	16(-3.468)	33(0.262)	33(3.612)	19(2.242)	16(0.508)	4(-1.948)	1(-1.318)	29.867**	0.150
Because I'm sick or injured	16(-2.481)	10(-3.849)	10(-1.669)	10(0.029)	20(2.633)	24(6.240)	11(5.376)	87.999**	0.258
Because there are more important things than exercise	31(1.182)	22(-0.904)	23(2.138)	12(0.800)	9(-0.842)	1(-2.614)	1(-1.053)	14.074	0.103
Because there is no one to exercise with	30(1.874)	21(-0.358)	15(0.456)	5(-1.291)	9(-0.370)	4(-1.120)	2(-0.190)	5.674	0.065
Because there is no place or facility	33(3.314)	15(-1.416)	13(0.239)	5(-1.043)	8(-0.411)	2(-1.773)	2(-0.045)	13.657	0.102
Because there is no coach or instructor	38(5.042)	14(-1.440)	9(-0.863)	4(-1.313)	7(-0.619)	1(-2.125)	1(-0.713)	27.451**	0.144
Because it's too much trouble	21(1.131)	18(0.308)	5(-1.822)	7(0.264)	5(-1.032)	6(0.448)	3(1.016)	6.005	0.067
Because I hate exercise	27(3.266)	18(0.629)	3(-2.372)	6(0.005)	2(-2.096)	4(-0.365)	1(-0.501)	17.143	0.114
Because I can't afford it	16(1.438)	10(-0.596)	9(0.805)	3(-0.723)	6(0.345)	0(-1.982)	1(-0.179)	6.564	0.070

* $p < .00357$, ** $p < .001$

Figure 3-10 and Table 3-10 present the survey results on age differences in obstacles to participating in sports/PA. The survey targeted respondents who answered, "I participate in sports/PA less than once a week." Participants were allowed to select multiple responses. Figure 3-10 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation obstacles with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00357$, with absolute values of adjusted residuals > 2.93 considered significant. The items showing significant age differences in this statistical analysis were as follows:

- Because I'm busy with work: Significantly higher in ages 25-34 and 35-44, and significantly lower in ages 15-24, 65-74, and 75-
- Because I'm old: Significantly higher in ages 55-64, 65-74, and 75-, and significantly lower in ages 15-24, 25-34, and 35-44
- Because I already get enough PA in my daily life and work: Significantly higher in ages 55-64, and significantly lower in ages 15-24
- Because I'm busy with childcare: Significantly higher in ages 35-44, and significantly lower in ages 15-24
- Because I'm sick or injured: Significantly higher in ages 55-64, 65-74, and 75-, and significantly lower in ages 25-34
- Because there is no coach or instructor: Significantly higher in ages 15-24

3.2.4 The Places where People Participate in Sports and Physical Activity

Figure 3-11. Age Differences in Places where Sports/PA are Practiced

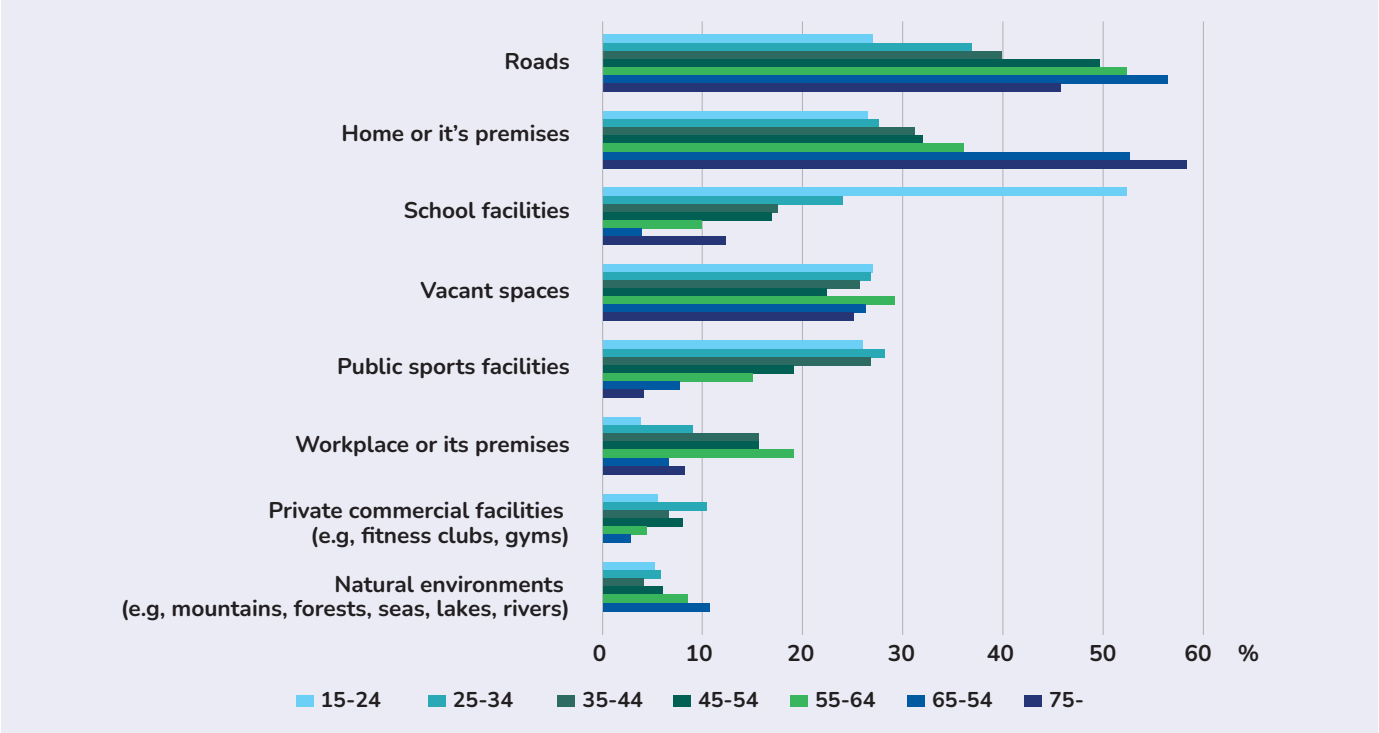

Table 3-11. Analysis Results of Age Differences in Places where Sports/PA are Practiced

	Number (Standardized residual)							χ^2	φ
	15-24	25-34	35-44	45-54	55-64	65-74	75-		
Roads	151(-6.508)	172(-0.668)	105(0.662)	73(3.052)	90(4.092)	58(4.092)	11(0.801)	68.429**	0.198
Home or its premises	148(-2.735)	129(-1.820)	82(0.091)	47(0.316)	62(1.563)	54(4.896)	14(2.939)	40.857**	0.153
School facilities	293(14.921)	113(-2.639)	46(-4.435)	25(-3.303)	17(-5.774)	4(-5.759)	3(-1.777)	274.048**	0.377
Vacant spaces	151(0.334)	125(0.115)	68(-0.278)	33(-1.150)	50(0.820)	27(-0.057)	6(-0.162)	1.996	0.034
Public sports facilities	146(1.608)	132(2.654)	71(1.329)	28(-1.384)	26(-2.786)	8(-3.919)	1(-2.265)	36.655**	0.145
Workplace or its premises	22(-5.699)	43(-0.566)	41(3.375)	23(2.474)	33(4.340)	7(-1.067)	2(-0.248)	55.623**	0.179
Private commercial facilities (e.g., fitness clubs, gyms)	32(-1.464)	49(3.405)	18(-0.136)	12(0.569)	8(-1.279)	3(-1.681)	0(-1.355)	16.178	0.096
Natural environments (e.g., mountains, forests, seas, lakes, rivers)	30(-0.689)	27(-0.178)	11(-1.313)	9(-0.107)	15(1.638)	11(2.108)	0(-1.238)	9.927	0.076

* $p < .00357$, ** $p < .001$

Figure 3-11 and Table 3-11 present the survey results on age differences in the places where sports/PA are practiced. The survey targeted respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-11 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only locations with a total of 30 or more responses.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00357$, with absolute values of adjusted residuals > 2.93 considered significant. The items showing significant age differences in this statistical analysis were as follows:

- Roads: Significantly higher in ages 45-54, 55-64, and 65-74, and significantly lower in ages 15-24
- Home or its premises: Significantly higher in ages 65-74
- School facilities: Significantly higher in ages 15-24, and significantly lower in ages 35-44, 45-54, 55-64, and 65-74
- Public sports facilities: Significantly lower in ages 65-74
- Workplace or its premises: Significantly higher in ages 34-45 and 55-64, and significantly lower in ages 15-24

3.2.5 Groups where People Participate in Sports and Physical Activity

Figure 3-12. Age Differences in the Group Participating in Sports/PA

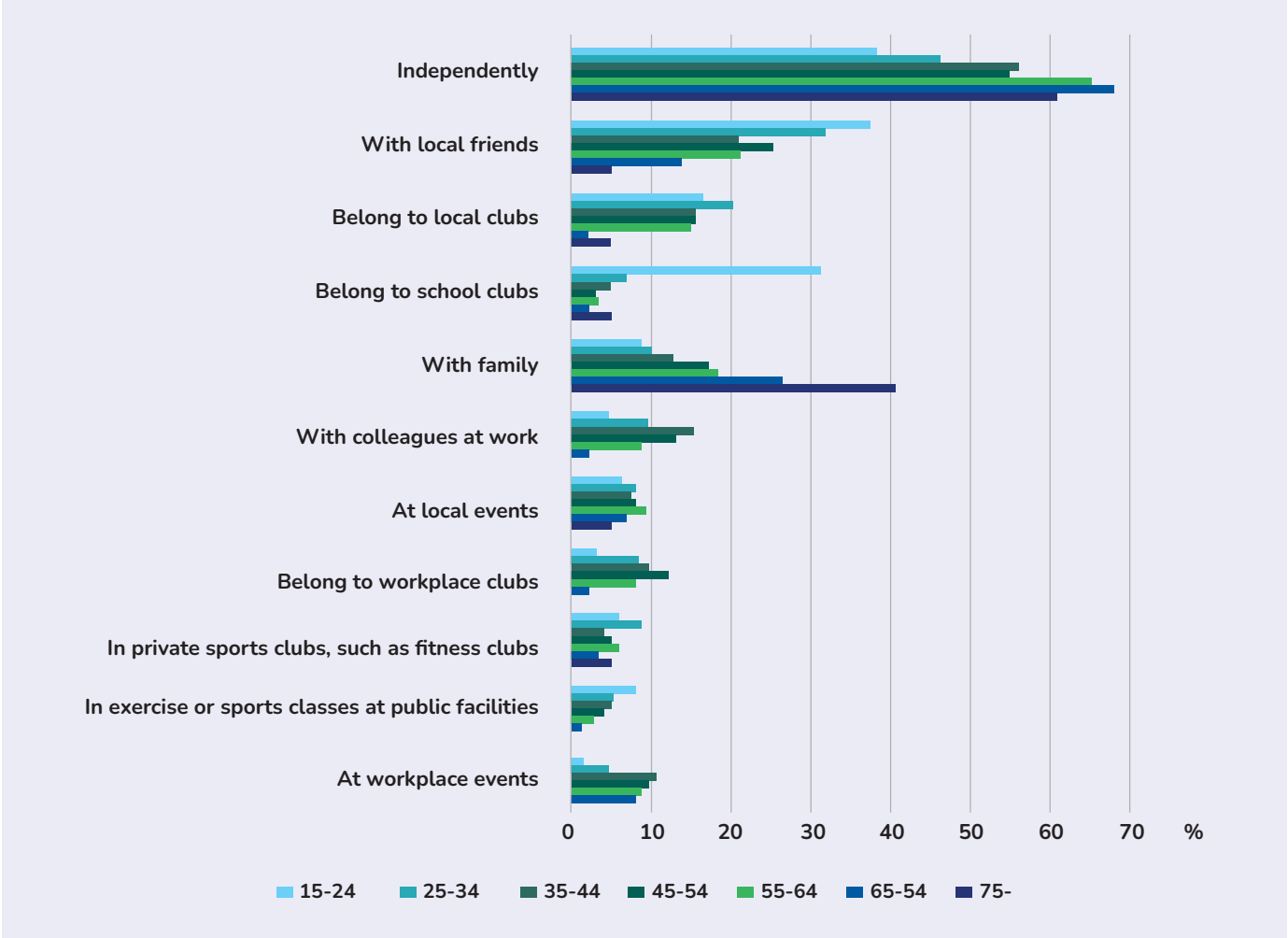

Table 3-12. Analysis Results of Age Differences in the Group Participating in Sports/PA

	Number (Standardized residual)							χ^2	φ
	15-24	25-34	35-44	45-54	55-64	65-74	75-		
Independently	203(-5.850)	198(-1.386)	132(2.418)	67(1.345)	96(4.155)	59(3.633)	12(1.059)	59.960**	0.194
With local friends	198(5.102)	137(1.381)	49(-3.057)	31(-0.990)	31(-2.281)	12(-3.244)	1(-2.370)	47.711**	0.173
Belong to local clubs	87(0.124)	88(2.723)	37(-0.252)	19(-0.245)	22(-0.466)	2(-3.631)	1(-1.359)	19.978**	0.112
Belong to school clubs	165(14.063)	30(-4.902)	12(-4.239)	4(-3.549)	5(-3.876)	2(-3.221)	1(-1.146)	200.272**	0.355
With family	47(-3.201)	43(-1.965)	30(0.045)	21(1.549)	27(2.172)	23(3.973)	8(3.738)	44.802**	0.168
With colleagues at work	25(-3.838)	42(1.063)	36(4.034)	16(1.868)	13(0.137)	2(-2.138)	0(-1.365)	33.827**	0.146
At local events	33(-1.294)	35(0.628)	18(0.131)	10(0.314)	14(1.001)	6(-0.200)	1(-0.407)	2.612	0.041
Belong to workplace clubs	17(-4.026)	37(1.719)	23(1.959)	15(2.858)	12(0.678)	2(-1.717)	0(-1.209)	28.336**	0.133
In private sports clubs, such as fitness clubs	31(-0.436)	38(2.601)	10(-1.365)	6(-0.639)	9(-0.066)	3(-1.105)	1(-0.218)	8.201	0.072
In exercise or sports classes at public facilities	43(3.108)	23(-0.278)	12(-0.360)	5(-0.762)	4(-1.598)	1(-1.857)	0(-1.089)	13.854	0.093
At workplace events	8(-4.861)	20(-0.827)	25(3.836)	12(2.233)	13(1.926)	7(1.119)	0(-1.070)	38.960**	0.157

* $p < .00357$, ** $p < .001$

Figure 3-12 and Table 3-12 present the survey results on age differences in the groups involved in sports/PA. The survey targeted respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-12 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only groups with a total of 30 or more responses.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00357$, with absolute values of adjusted residuals > 2.93 considered significant. The items showing significant age differences in this statistical analysis were as follows:

- Independently: Significantly higher in ages 55-64 and 65-74, and significantly lower in ages 15-24
- With local friends: Significantly higher in ages 15-24, and significantly lower in ages 35-44 and 65-74
- Belong to local clubs: Significantly lower in ages 65-74
- Belong to school clubs: Significantly higher in ages 15-24, and significantly lower in ages 25-34, 35-44, 45-54, 55-64, and 65-74
- With family: Significantly higher in ages 65-74 and 75-, and significantly lower in ages 15-24
- With colleagues at work: Significantly higher in ages 35-44, and significantly lower in ages 15-24
- Belong to workplace clubs: Significantly lower in ages 15-24
- At workplace events: Significantly higher in ages 35-44, and significantly lower in ages 15-24

3.3 Religious Difference

In this section, we report the differences based on religion. The gender and age differences for both Christian and Muslim respondents are presented in Table 3-13.

Table 3-13. Gender and Age Differences among Religions

Religion	N	Gender		Age	
		Female	Male	Mean	SD
Christian	1625	807	818	36.16	16.242
Muslim	703	311	392	36.82	17.913

3.3.1 Participation Situation for Sports and Physical Activity

Figure 3-13. Religious Differences in Participation Rates of Sports/PA

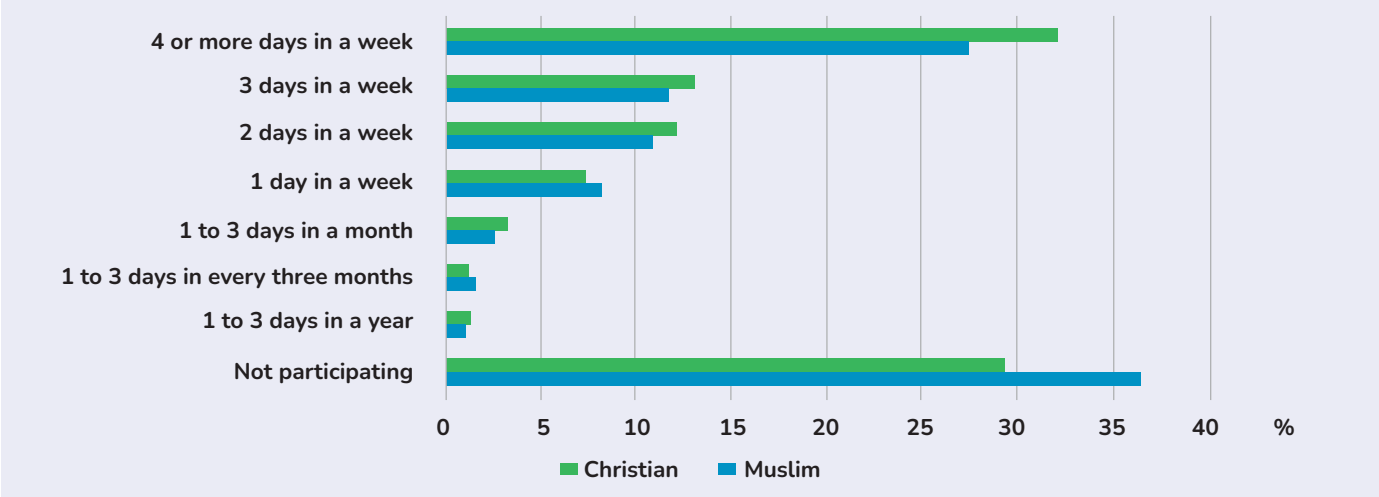

Table 3-14. Analysis Results of Religious Differences in Sports/PA Participation Rates

	Number (Standardized residual)		χ^2	φ
	Christian	Muslim		
4 or more days in a week	523 (2.373)	194 (-2.373)	28.904	0.202
3 days in a week	214 (1.140)	82 (-1.140)		
2 days in a week	198 (1.078)	76 (-1.078)		
1 day in a week	119 (-0.781)	58 (0.781)		
1 to 3 days in a month	54 (0.853)	18 (-0.853)		
1 to 3 days in every three months	18 (-0.868)	11 (0.868)		
1 to 3 days in a year	21 (0.642)	7 (-0.642)		
Not participating	478 (-3.726)	257 (3.726)		

* $p < .00312$, ** $p < .001$

Figure 3-13 and Table 3-14 present the survey results on religious differences in participation rates for sports/PA. The percentage of people who answered, "I participate in sports/PA at least once a week" was 64.9% for Christians and 58.3% for Muslims. Including this, the percentage of people who answered, "I participate in sports/PA at least once a year" was 70.6% for Christians and 63.4% for Muslims. Conversely, the percentage of people who answered, "I do not participate in sports/PA" was 29.4% for Christians and 36.6% for Muslims. By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00312$, with absolute values of adjusted residuals > 2.95 considered significant. Therefore, no items showed significant differences in this statistical analysis.

3.3.2 Types of Sports and Physical Activity Participation

Figure 3-14. Religious Differences in Types of Sports/PA Participation

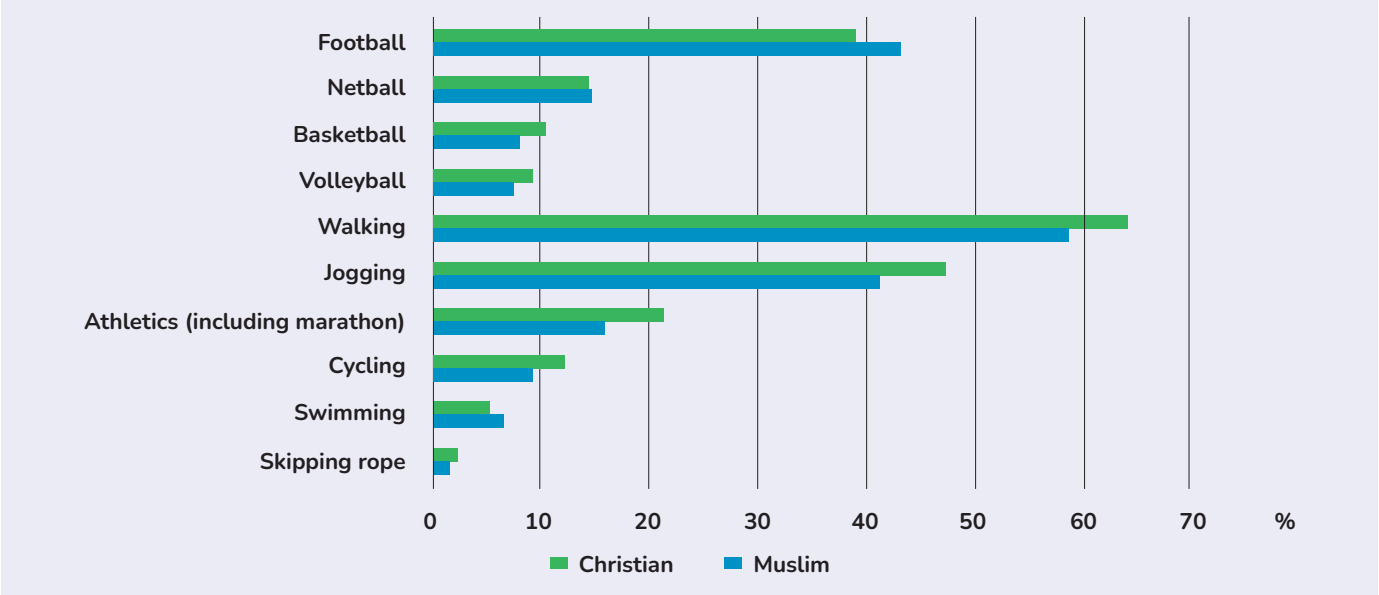

Table 3-15. Analysis Results of Religious Differences in Types of Sports/PA Participation

	Number (Standardized residual)		χ^2	φ
	Christian	Muslim		
Football	461 (-1.509)	201 (1.509)	2.517	0.039
Netball	170 (-0.127)	68 (0.127)	0.036	0.005
Basketball	124 (1.371)	38 (-1.371)	2.359	0.038
Volleyball	111 (1.277)	35 (-1.277)	2.047	0.035
Walking	757 (1.946)	273 (-1.946)	5.322	0.057
Jogging	560 (2.309)	192 (-2.309)	5.482	0.058
Athletics (including marathon)	253 (2.537)	74 (-2.537)	6.438	0.062
Cycling	144 (1.780)	43 (-1.780)	3.671	0.047
Swimming	63 (-0.984)	31 (0.984)	1.459	0.030

* $p < .05$, ** $p < .001$

Figure 3-14 and Table 3-15 present the survey results on religious differences in the types of sports/PA participated in. Respondents were allowed to select multiple answers. Figure 3-14 shows the percentage of each response, divided by the number of respondents who answered something other than "not participated," indicating they participated in sports/PA, and includes only sports/PA with a total response count of 30 or more. No items showed significant differences in this statistical analysis.

3.3.3 Factors that Promote or Discourage Participation in Sports and Physical Activity

Figure 3-15. Religious Differences in Factors for Participation in Sports/PA

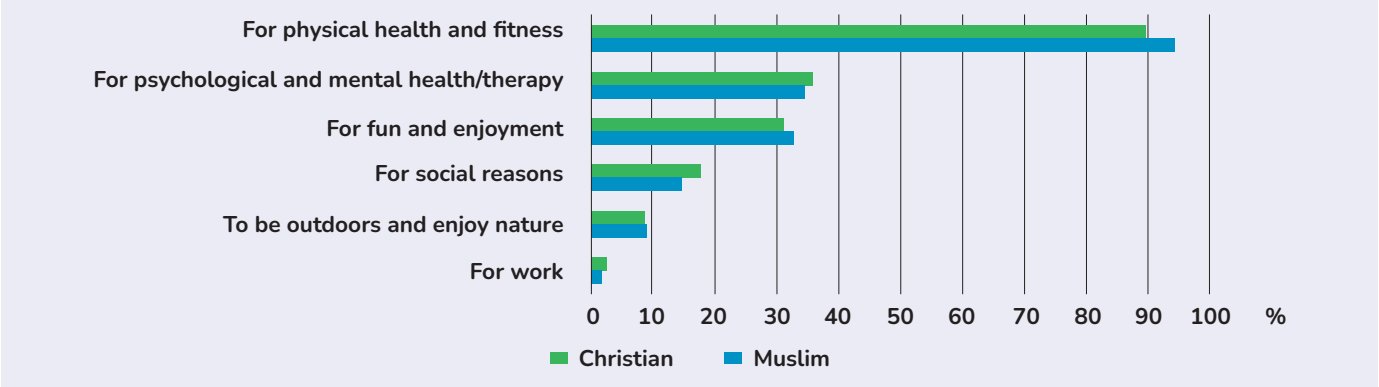

Table 3-16. Analysis Results of Religious Differences in Factors for Participation in Sports/PA

	Number (Standardized residual)		χ^2	φ
	Christian	Muslim		
For physical health and fitness	994 (-2.699)	385 (2.699)	7.369	0.071
For psychological and mental health/therapy	379 (0.606)	141 (-0.606)	1.400	0.031
For fun and enjoyment	327 (-0.753)	135 (0.753)	0.832	0.024
For social reasons	186 (1.296)	61 (-1.296)	1.994	0.037
To be outdoors and enjoy nature	94 (-0.336)	38 (0.336)	4.107	0.053
For work	27 (0.983)	7 (-0.983)	0.992	0.026

* $p < .05$, ** $p < .001$

Figure 3-15 and Table 3-16 present the survey results on religious differences regarding factors that promote participation in sports/PA. The survey targeted respondents who answered, "I participate in sports/PA at least once a week." Participants were allowed to select multiple responses. Figure 3-15 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation factors with a total response count of 30 or more. No items showed significant differences in this statistical analysis.

Figure 3-16. Religious Differences in Obstacles for Participation in Sports/PA

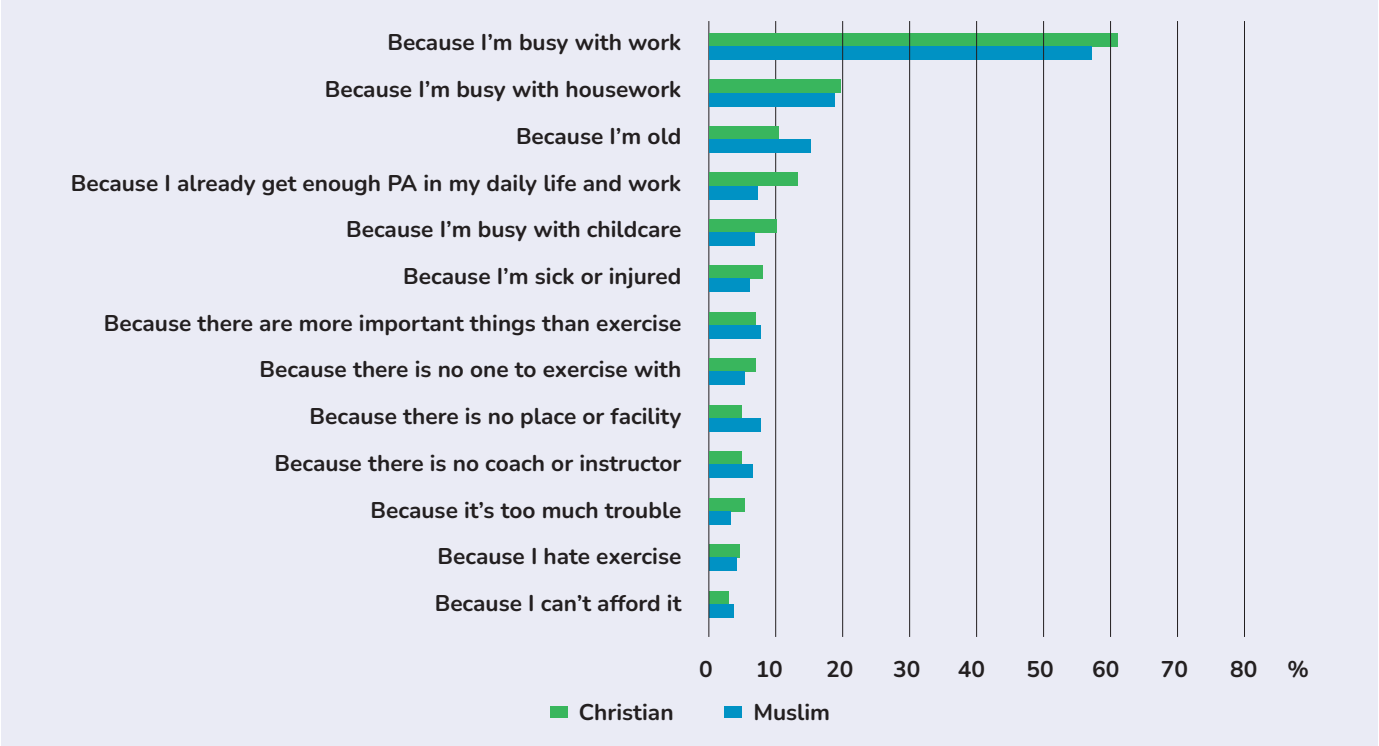

Table 3-17. Analysis Results of Religious Differences in Obstacles for Participation in Sports/PA

	Number (Standardized residual)		χ^2	φ
	Christian	Muslim		
Because I'm busy with work	547 (1.471)	246 (-1.471)	2.207	0.041
Because I'm busy with housework	176 (0.296)	81 (-0.296)	0.556	0.020
Because I'm old	96 (-2.325)	67 (2.325)	7.850*	0.077
Because I already get enough PA in my daily life and work	119 (2.905)	32 (-2.905)	12.521**	0.097
Because I'm busy with childcare	91 (1.890)	31 (-1.890)	4.248	0.057
Because I'm sick or injured	74 (1.411)	27 (-1.411)	2.599	0.044
Because there are more important things than exercise	64 (-0.499)	34 (0.499)	0.269	0.014
Because there is no one to exercise with	62 (1.055)	23 (-1.055)	1.355	0.032
Because there is no place or facility	45 (-1.785)	33 (1.785)	4.342	0.057
Because there is no coach or instructor	46 (-0.895)	28 (0.895)	1.675	0.036
Because it's too much trouble	50 (1.758)	15 (-1.758)	3.374	0.050
Because I hate exercise	40 (-0.229)	19 (0.229)	4.653	0.059
Because I can't afford it	29 (-0.359)	16 (0.359)	0.587	0.021

* $p < .05$, ** $p < .001$

Figure 3-16 and Table 3-17 present the survey results on religious differences in obstacles to participating in sports/PA. The survey targeted respondents who answered, "I participate in sports/PA less than once a week." Participants were allowed to select multiple responses. Figure 3-16 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation obstacles with a total response count of 30 or more. The items showing significant religious differences in this statistical analysis were as follows:

- Because I'm old: Significantly higher in Muslims, and significantly lower in Christians
- Because I already get enough PA in my daily life and work: Significantly higher in Christians, and significantly lower in Muslims

3.3.4 The Place where People Participate Sports and Physical Activity

Figure 3-17. Religious Differences in Places where Sports/PA are Practiced

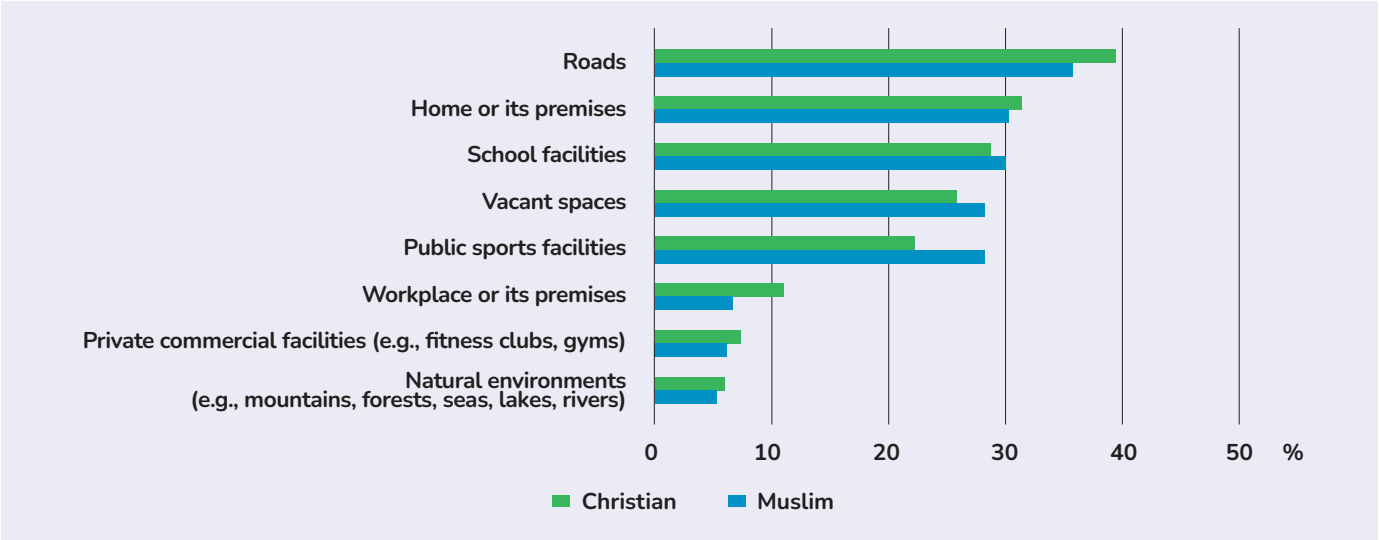

Table 3-18. Analysis Results of Religious Differences in Places where Sports/PA are Practiced

	Number (Standardized residual)		χ^2	φ
	Christian	Muslim		
Roads	485 (1.450)	173 (-1.450)	2.111	0.035
Home or its premises	387 (0.446)	147 (-0.446)	0.230	0.011
School facilities	354 (-0.481)	146 (0.481)	0.730	0.020
Vacant spaces	320 (-1.059)	137 (1.059)	2.602	0.039
Public sports facilities	275 (-2.434)	137 (2.434)	8.489*	0.070
Workplace or its premises	138 (2.813)	33 (-2.813)	8.218*	0.069
Private commercial facilities (e.g., fitness clubs, gyms)	91 (0.790)	31 (-0.790)	0.987	0.024
Natural environments (e.g., mountains, forests, seas, lakes, rivers)	76 (0.535)	26 (-0.535)	1.659	0.031

* $p < .05$, ** $p < .001$

Figure 3-17 and Table 3-18 present the survey results on religious differences in the places where sports/PA are practiced. The survey targeted respondents who participated in any sports/PA, excluding those who answered “not participated,” indicating no participation. Participants were allowed to select multiple responses. Figure 3-17 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only locations with a total of 30 or more responses. The items showing significant religious differences in this statistical analysis were as follows:

- Public sports facilities: Significantly higher in Muslims, and significantly lower in Christians
- Workplace or its premises: Significantly higher in Christians, and significantly lower in Muslims

3.3.5 Groups where People Participate in Sports and Physical Activity

Figure 3-18. Religious Differences in the Group Participating in Sports/PA

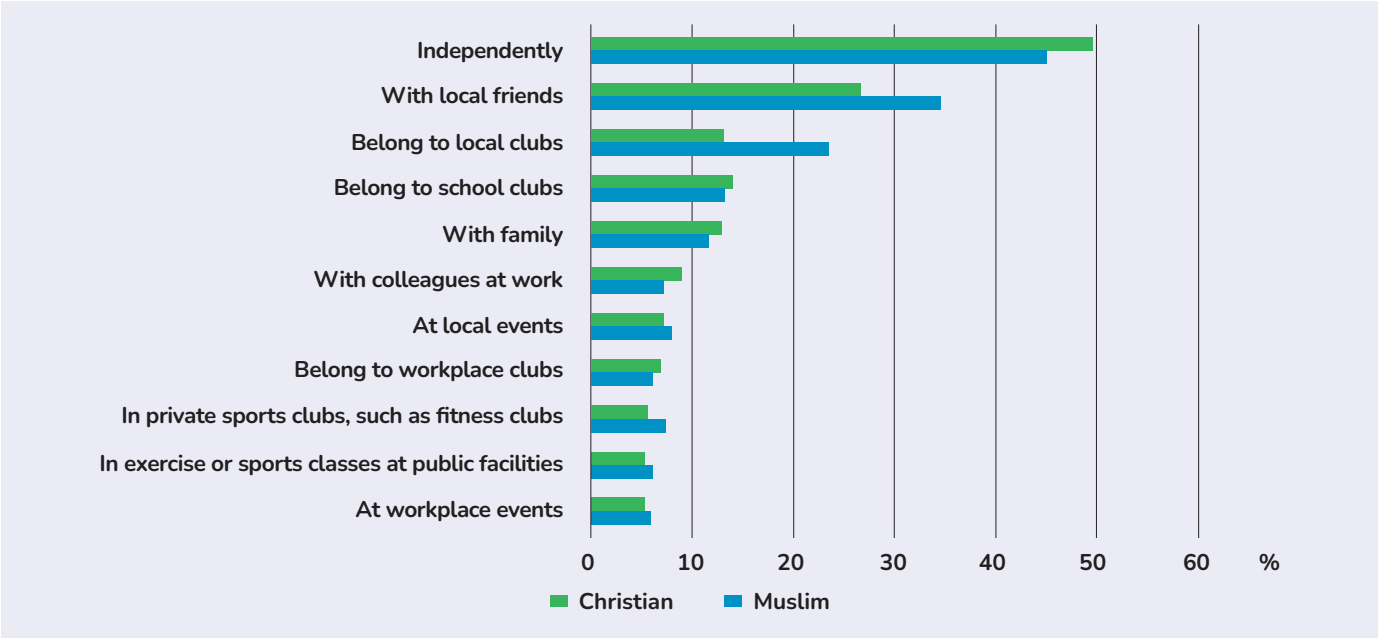

Table 3-19. Analysis Results of Religious Differences in the Group Participating in Sports/PA

	Number (Standardized residual)		χ^2	φ
	Christian	Muslim		
Independently	562 (1.556)	203 (-1.556)	2.981	0.043
With local friends	303 (-3.056)	156 (3.056)	11.075**	0.083
Belong to local clubs	150 (-4.971)	106 (4.971)	25.927**	0.128
Belong to school clubs	158 (0.247)	60 (-0.247)	1.068	0.026
With family	147 (0.809)	52 (-0.809)	1.016	0.025
With colleagues at work	102 (1.252)	32 (-1.252)	1.761	0.033
At local events	81 (-0.551)	36 (0.551)	0.582	0.019
Belong to workplace clubs	79 (0.566)	28 (-0.566)	0.503	0.018
In private sports clubs, such as fitness clubs	64 (-1.389)	34 (1.389)	2.223	0.037
In exercise or sports classes at public facilities	60 (-0.698)	28 (0.698)	0.706	0.021
At workplace events	59 (-0.427)	26 (0.427)	0.378	0.015

* $p < .05$, ** $p < .001$

Figure 3-18 and Table 3-19 present the survey results on religious differences in the groups involved in sports/PA. The survey targeted respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-18 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only groups with a total of 30 or more responses. The items showing significant religious differences in this statistical analysis were as follows:

- With local friends: Significantly higher in Muslims, and significantly lower in Christians
- Belong to local clubs: Significantly higher in Muslims, and significantly lower in Christians

3.4 Area Difference

In this section, regional differences are reported in terms of (1) area groups covering several regions and (2) municipal councils or district councils. For (1), Table 3-20 presents the gender, religious, and age differences for each area group. For (2), Table 3-21 shows the gender, religious, and age differences for municipal councils versus district councils.

Table 3-20. Gender, Religious, and Age Differences for Each Area Group

Area Group	N	Gender		Religion			Age	
		Female	Male	Christian	Muslim	Other	Mean	SD
Central	252	118	134	173	78	1	35.74	16.547
Eastern	399	179	220	264	133	2	35.58	15.442
Lake	582	280	302	477	102	3	37.23	17.330
Northern	280	138	142	162	118	0	38.25	18.099
Southern	103	50	53	50	53	0	34.24	16.227
Southern Highlands	164	89	75	137	27	0	36.38	16.969
South West Highlands	222	111	111	206	14	2	37.40	16.388
Western	238	123	115	146	89	3	34.16	16.166
Zanzibar	100	37	63	10	89	1	36.14	17.288

Table 3-21. Gender, Religious, and Age Differences between Municipal Councils and District Councils

Municipal Councils or District Councils	N	Gender		Religion			Age	
		Female	Male	Christian	Muslim	Other	Mean	SD
Municipal Councils	1,023	502	521	712	308	3	35.96	15.993
District Councils	1,317	623	694	913	395	9	36.70	17.349

3.4.1 Participation Situation for Sports and Physical Activity

Figure 3-19. Area Group Differences in Participation Rates of Sports/PA

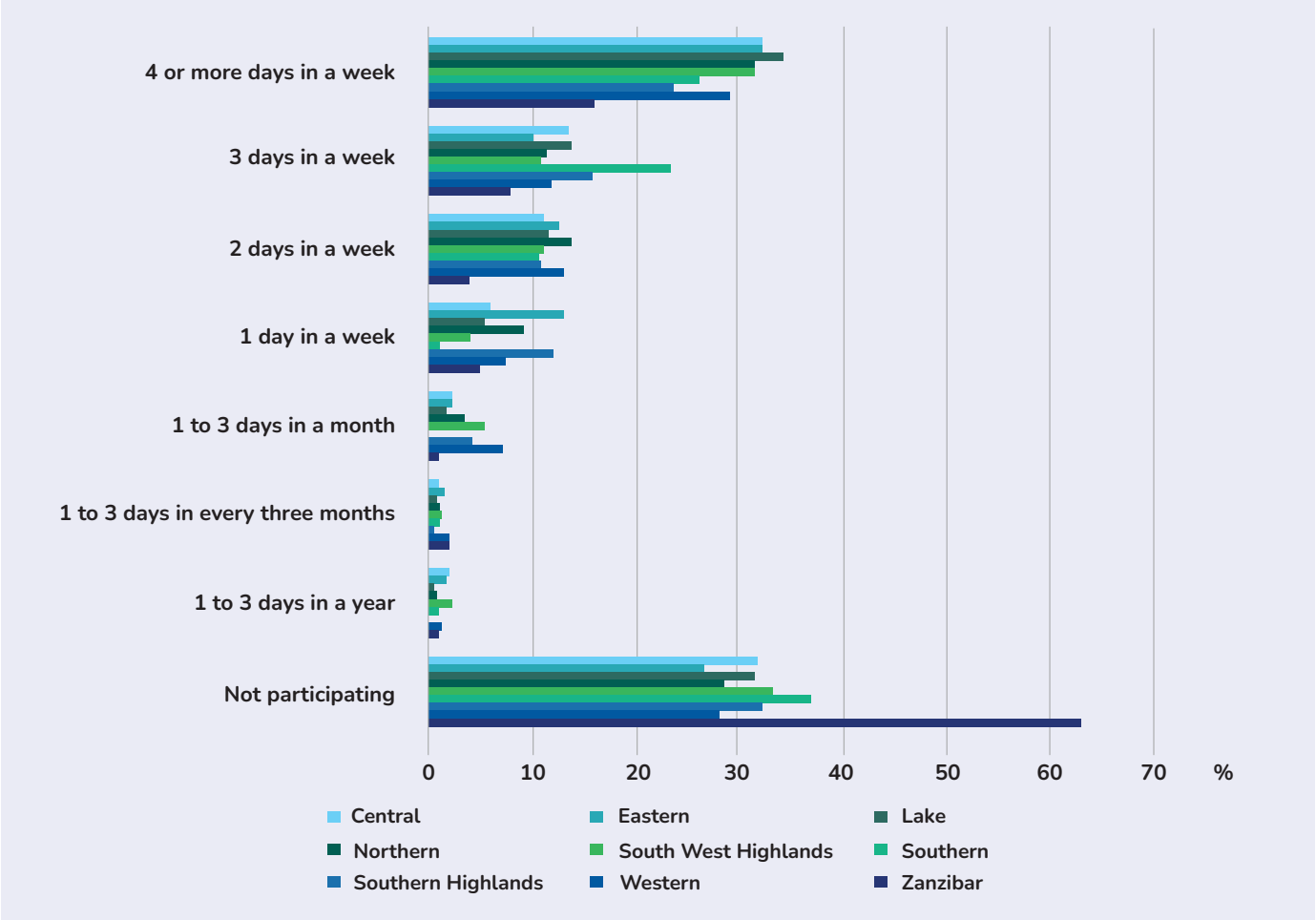

Table 3-22. Analysis Results of Area Group Differences in Sports/PA Participation Rates

	Number (Standardized residual)									χ^2	Cramer's V
	Central	Eastern	Lake	Northern	South West Highlands	Southern	Southern Highlands	Western	Zanzibar		
4 or more days in a week	81 (0.532)	129 (0.783)	199 (2.118)	88 (0.288)	70 (0.288)	27 (-1.006)	39 (-1.988)	69 (-0.597)	16 (-3.254)	147.192**	0.251
3 days in a week	34 (0.426)	40 (-1.732)	80 (0.918)	32 (-0.655)	24 (-0.866)	24 (3.326)	26 (1.280)	28 (-0.433)	8 (-1.430)		
2 days in a week	28 (-0.313)	50 (0.561)	68 (-0.022)	39 (1.231)	25 (-0.218)	11 (-0.332)	18 (-0.303)	31 (0.666)	4 (-2.451)		
1 day in a week	15 (-1.049)	52 (4.489)	32 (-2.214)	26 (1.129)	9 (-2.099)	1 (-2.598)	20 (2.298)	18 (-0.027)	5 (-1.005)		
1 to 3 days in a month	6 (-0.714)	9 (-1.090)	11 (-1.969)	10 (0.463)	12 (2.059)	0 (-1.863)	7 (0.877)	17 (3.767)	1 (-1.246)		
1 to 3 days in every three months	3 (-0.074)	6 (0.524)	5 (-0.957)	3 (-0.271)	3 (0.159)	1 (-0.252)	1 (-0.756)	5 (1.268)	2 (0.703)		
1 to 3 days in a year	5 (1.217)	7 (1.125)	4 (-1.304)	2 (-0.791)	5 (1.521)	1 (-0.215)	0 (-1.461)	3 (0.096)	1 (-0.185)		
Not participating	80 (-0.018)	106 (-2.462)	183 (-0.210)	80 (-1.234)	74 (0.517)	38 (1.136)	53 (0.149)	67 (-1.274)	63 (6.849)		

** $p < .00079$

Figure 3-19 and Table 3-22 present the survey results on area group differences in participation rates for sports/PA. The percentage of people who answered, "I participate in sports/PA at least once a week" was 62.7% for Central, 67.9% for Eastern, 65.1% for Lake, 66.1% for Northern, 57.7% for South West Highlands, 61.2% for Southern, 62.8% for Southern Highlands, 61.3% for Western, and 33.0% for Zanzibar. Including this, the percentage of people who answered, "I participate in sports/PA at least once a year" was 68.3% for Central, 73.4% for Eastern, 68.6% for Lake, 71.4% for Northern, 66.7% for South West Highlands, 63.1% for Southern, 67.7% for Southern Highlands, 71.8% for Western, and 37.0% for Zanzibar. Conversely, the percentage of people who answered, "I do not participate in sports/PA" was 31.8% for Central, 26.6% for Eastern, 31.4% for Lake, 28.6% for Northern, 33.3% for South West Highlands, 36.9% for Southern, 32.3% for Southern Highlands, 28.2% for Western, and 63.0% for Zanzibar.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00079$, with absolute values of adjusted residuals > 3.31 considered significant. The items showing significant area group differences in this statistical analysis were as follows:

- 3 days in a week: Significantly higher in Southern
- 1 day in a week: Significantly higher in Eastern
- 1 to 3 days in a month: Significantly higher in Western
- Not participating: Significantly higher in Zanzibar

Figure 3-20. Differences in Participation Rates of Sports/PA between Municipal Councils and District Councils

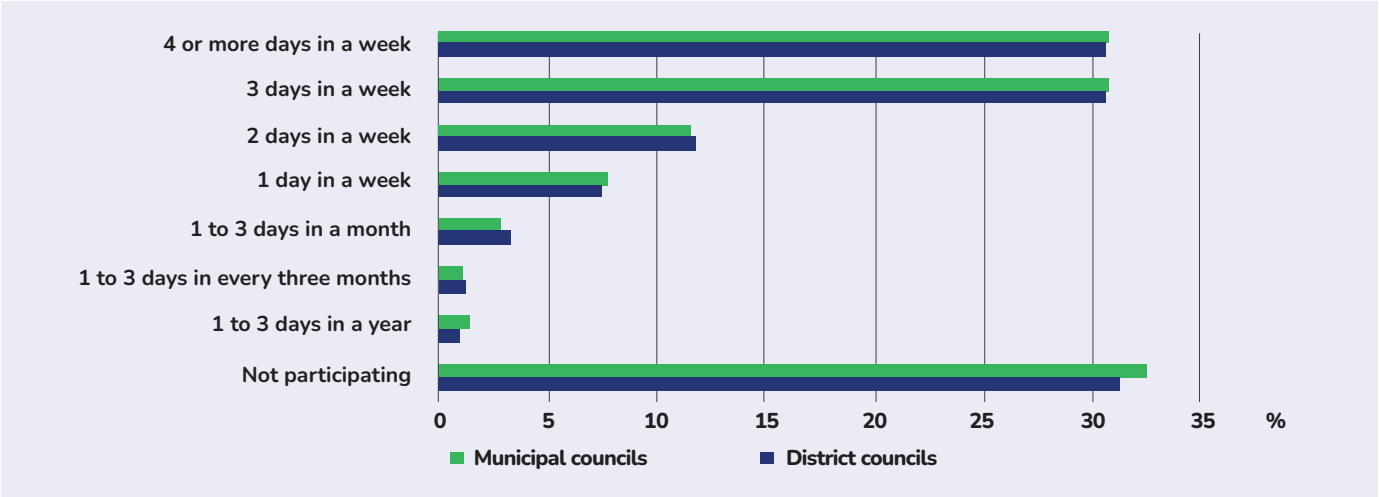

Table 3-23. Analysis Results of Differences in Sports/PA Participation Rates Between Municipal Councils and District Councils

	Number (Standardized residual)		χ^2	φ
	Municipal councils (n = 1,023)	District councils (n = 1,317)		
4 or more days in a week	315 (0.100)	403 (-0.100)	2.540	0.033
3 days in a week	123 (-0.803)	173 (0.803)		
2 days in a week	118 (-0.232)	156 (0.232)		
1 day in a week	79 (0.186)	99 (-0.186)		
1 to 3 days in a month	29 (-0.699)	44 (0.699)		
1 to 3 days in every three months	12 (-0.255)	17 (0.255)		
1 to 3 days in a year	15 (1.057)	13 (-1.057)		
Not participating	332 (0.603)	412 (-0.603)		

* $p < .00312$, ** $p < .001$

Figure 3-20 and Table 3-23 present the survey results on differences in participation rates for sports/PA between municipal councils and district councils. The percentage of people who answered, “I participate in sports/PA at least once a week” was 62.1% for municipal councils and 63.1% for district councils. Including this, the percentage of people who answered, “I participate in sports/PA at least once a year” was 67.5% for municipal councils and 68.7% for district councils. Conversely, the percentage of people who answered, “I do not participate in sports/PA” was 32.5% for municipal councils and 31.3% for district councils.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00312$, with absolute values of adjusted residuals > 2.95 considered significant. Therefore, no items showed significant differences in this statistical analysis.

3.4.2 Types of Sports and Physical Activity Participation

Figure 3-21. Area Group Differences in Types of Sports/PA Participation

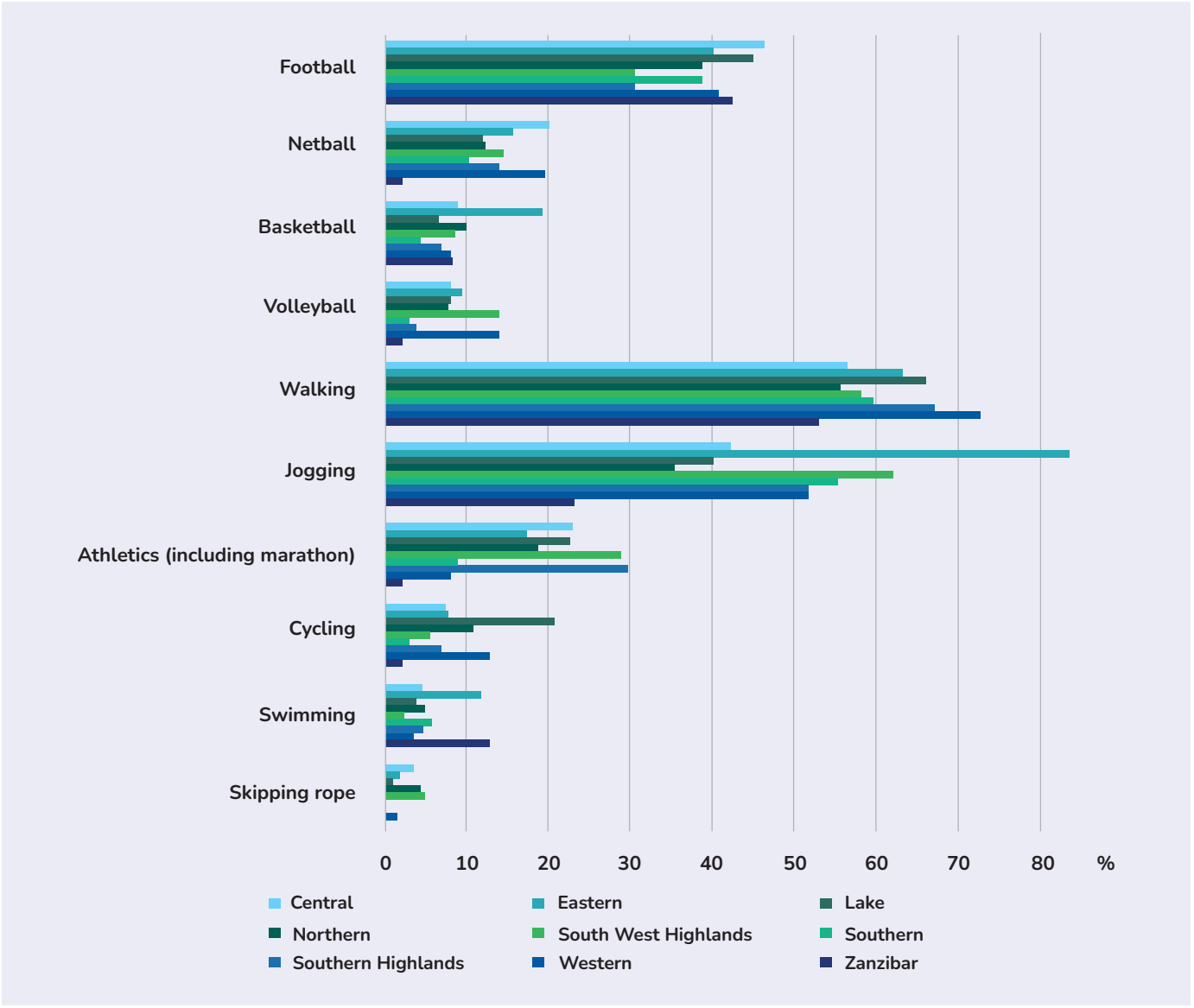

Table 3-24. Analysis Results of Area Group Differences in Types of Sports/PA Participated In

	Number (Standardized residual)									χ^2	Cramer's V
	Central	Eastern	Lake	Northern	South West Highlands	Southern	Southern Highlands	Western	Zanzibar		
Football	79 (1.755)	117 (-0.005)	185 (2.239)	78 (-0.436)	50 (-2.617)	26 (-0.241)	39 (-2.342)	70 (0.136)	20 (0.331)	18.105	0.105
Netball	34 (2.161)	46 (0.711)	50 (-1.558)	25 (-0.876)	24 (0.095)	7 (-0.957)	18 (-0.138)	34 (2.084)	1 (-2.441)	17.686	0.104
Basketball	15 (-0.484)	56 (5.905)	28 (-2.417)	20 (0.039)	14 (-0.579)	3 (-1.511)	9 (-1.122)	14 (-0.805)	4 (-0.318)	37.649**	0.151
Volleyball	14 (-0.295)	28 (0.516)	33 (-0.688)	16 (-0.470)	23 (2.495)	2 (-1.724)	5 (-2.048)	24 (2.494)	1 (-1.645)	21.380	0.114
Walking	96 (-1.770)	184 (0.210)	272 (1.613)	112 (-2.180)	95 (-1.225)	40 (-0.516)	86 (1.096)	125 (2.861)	25 (-1.366)	20.834	0.112
Jogging	72 (-0.917)	141 (1.051)	166 (-2.530)	71 (-3.142)	101 (4.399)	37 (1.603)	66 (1.394)	89 (1.690)	11 (-3.109)	48.782**	0.172
Athletics (including marathon)	39 (1.061)	51 (-1.103)	94 (1.732)	38 (-0.364)	47 (3.023)	6 (-2.285)	38 (2.899)	14 (-4.073)	1 (-3.092)	49.526**	0.173
Cycling	13 (-1.598)	23 (-2.030)	86 (7.059)	22 (-0.182)	9 (-2.463)	2 (-2.200)	9 (-1.597)	22 (0.640)	1 (-2.019)	59.895**	0.190
Swimming	8 (-0.587)	34 (4.859)	16 (-1.830)	10 (-0.469)	4 (-1.880)	4 (0.100)	6 (-0.511)	6 (-1.319)	6 (2.123)	31.837**	0.139

* $p < .00278$, ** $p < .001$

Figure 3-21 and Table 3-24 present the survey results on area group differences in the types of sports/PA participated in. Respondents were allowed to select multiple answers. Figure 3-21 shows the percentage of each response, divided by the number of respondents who answered something other than "not participated," indicating they participated in sports/PA, and includes only sports/PA with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00278$, with absolute values of adjusted residuals > 2.99 considered significant. The items showing significant area group differences in this statistical analysis were as follows:

- Basketball: Significantly higher in Eastern
- Volleyball: Significantly higher in South West Highlands and Western, and significantly lower in Southern Highlands
- Jogging: Significantly higher in South West Highlands, and significantly lower in Northern and Zanzibar
- Athletics (including marathon): Significantly higher in South West Highlands, and significantly lower in Western and Zanzibar
- Cycling: Significantly higher in Lake
- Swimming: Significantly higher in Eastern

Figure 3-22. Differences in Types of Sports/PA Participated in between Municipal Councils and District Councils

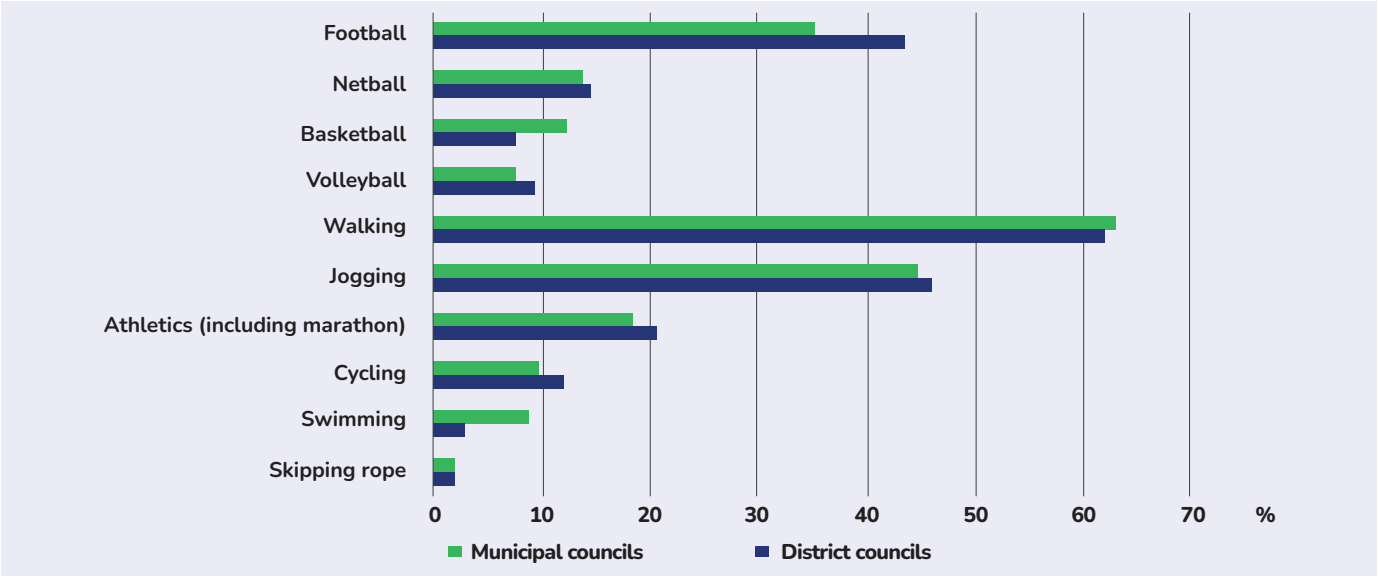

Table 3-25. Analysis Results of Differences in Types of Sports/PA Participated in between Municipal Councils and District Councils

	Number (Standardized residual)		χ^2	φ
	Municipal councils	District councils		
Football	253 (-3.420)	411 (3.420)	11.699**	0.084
Netball	100 (-0.454)	139 (0.454)	0.206	0.011
Basketball	89 (3.099)	74 (-3.099)	9.605**	-0.076
Volleyball	56 (-1.234)	90 (1.234)	1.523	0.030
Walking	451 (0.414)	584 (-0.414)	0.171	-0.010
Jogging	320 (-0.561)	434 (0.561)	0.314	0.014
Athletics (including marathon)	133 (-1.077)	195 (1.077)	1.160	0.027
Cycling	72 (-1.373)	115 (1.373)	1.885	0.034
Swimming	64 (5.019)	30 (-5.019)	25.186**	-0.124

* $p < .05$, ** $p < .001$

Figure 3-22 and Table 3-25 present the survey results on differences in the types of sports/PA participated in between municipal councils and district councils. Respondents were allowed to select multiple answers. Figure 3-22 shows the percentage of each response, divided by the number of respondents who answered something other than "not participated," indicating they participated in sports/PA, and includes only sports/PA with a total response count of 30 or more. The items showing significant differences in this statistical analysis were as follows:

- Football: Significantly higher in district councils, and significantly lower in municipal councils
- Basketball: Significantly higher in municipal councils, and significantly lower in district councils
- Swimming: Significantly higher in municipal councils, and significantly lower in district councils

3.4.3 Factors that Promote or Discourage Participation in Sports and Physical Activity

Figure 3-23. Area Group Differences in Factors for Participation in Sports/PA

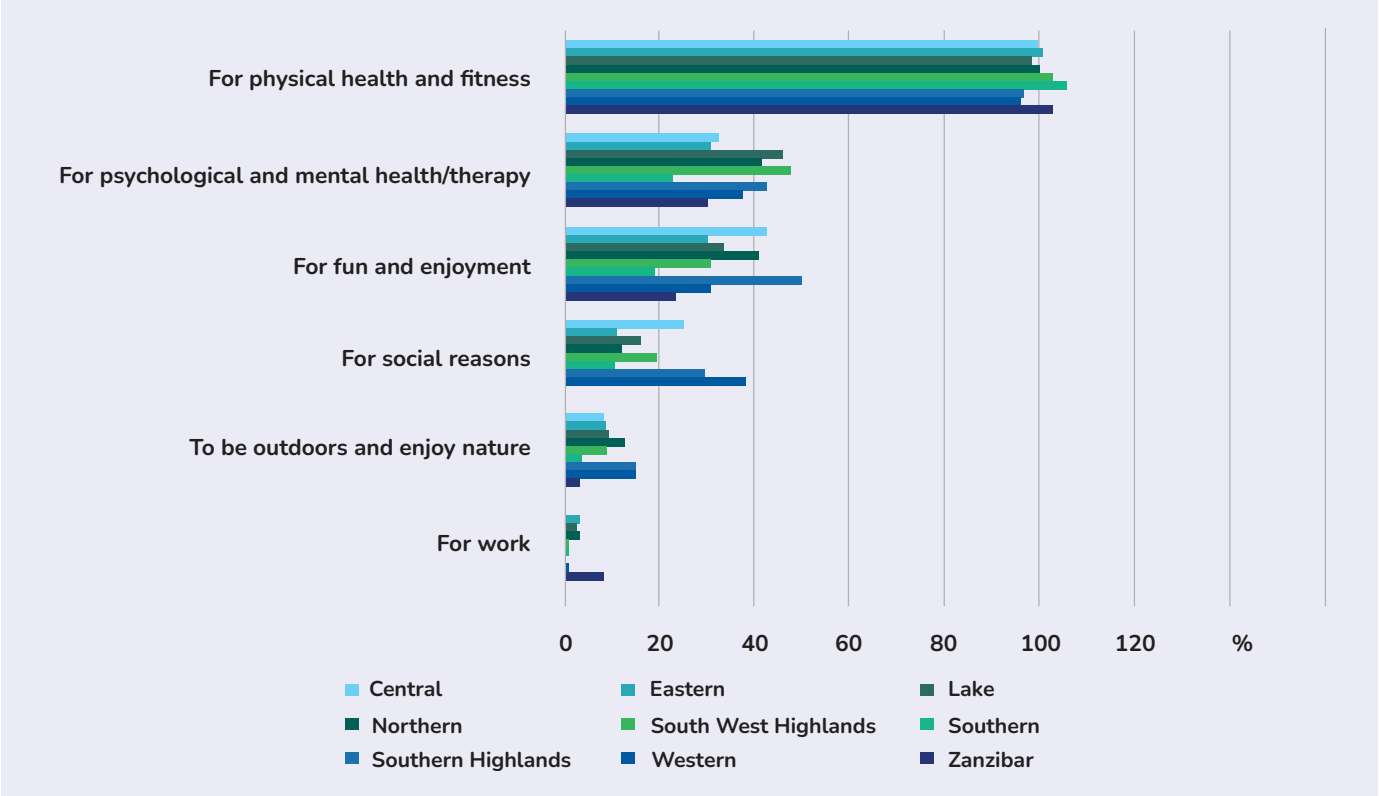

Table 3-26. Analysis Results of Area Group Differences in Factors for Participation in Sports/PA

	Number (Standardized residual)									χ^2	Cramer's V
	Central	Eastern	Lake	Northern	South West Highlands	Southern	Southern Highlands	Western	Zanzibar		
For physical health and fitness	144 (0.104)	249 (0.613)	339 (-0.968)	168 (0.196)	120 (1.168)	61 (1.669)	91 (-0.940)	128 (-1.437)	31 (0.611)	8.002	0.074
For psychological and mental health/therapy	47 (-1.605)	76 (-2.848)	159 (3.087)	70 (0.765)	56 (2.037)	13 (-2.523)	40 (0.729)	50 (-0.339)	9 (-1.001)	27.948**	0.138
For fun and enjoyment	61 (1.998)	75 (-1.549)	116 (-0.455)	69 (1.833)	36 (-0.892)	11 (-2.472)	47 (3.170)	41 (-0.970)	7 (-1.301)	27.025**	0.136
For social reasons	36 (2.101)	27 (-3.364)	56 (-1.240)	20 (-2.325)	23 (0.347)	6 (-1.592)	28 (2.899)	51 (6.141)	0 (-2.618)	70.024**	0.219
To be outdoors and enjoy nature	12 (-0.690)	21 (-0.848)	32 (-0.486)	21 (1.175)	10 (-0.524)	2 (-1.669)	14 (1.651)	20 (2.044)	1 (-1.224)	13.070	0.094
For work	4 (0.185)	6 (-0.131)	10 (0.484)	1 (-1.713)	1 (-1.212)	0 (-1.251)	1 (-0.945)	11 (4.407)	0 (-0.896)	24.720*	0.130

* $p < .00278$, ** $p < .001$

Figure 3-23 and Table 3-26 present the survey results on area group differences in factors that promote participation in sports/PA. The survey focused on respondents who answered, "I participate in sports/PA at least once a week." Participants were allowed to select multiple responses. Figure 3-23 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation factors with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00278$, with absolute values of adjusted residuals > 2.99 considered significant. The items showing significant area group differences in this statistical analysis were as follows:

- For psychological and mental health/therapy: Significantly higher in Lake
- For fun and enjoyment: Significantly higher in Southern Highlands
- For social reasons: Significantly higher in Western, and significantly lower in Eastern
- For work: Significantly higher in Western

Figure 3-24. Differences in Factors for Participation in Sports/PA between Municipal Councils and District Councils

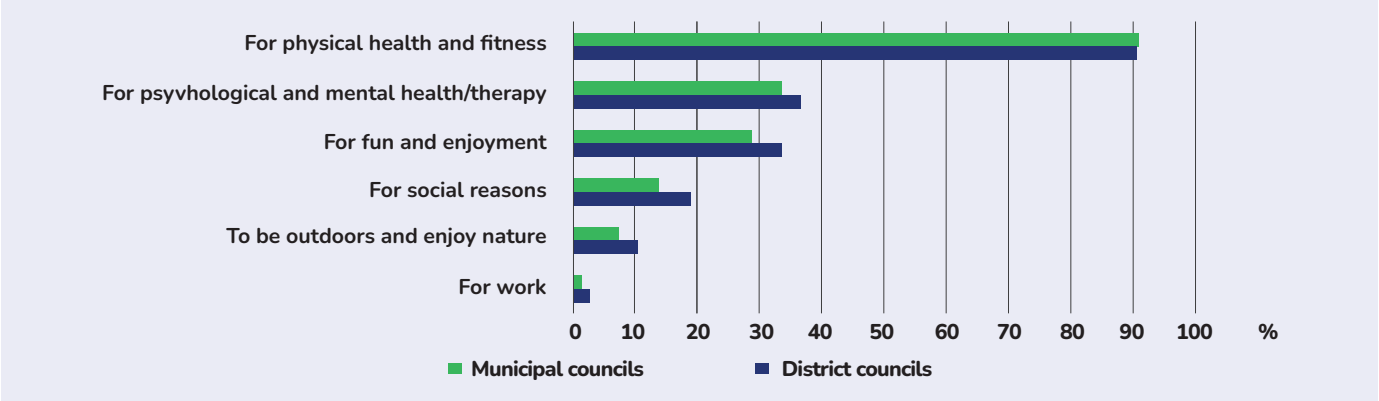

Table 3-27. Analysis Results of Differences in Factors for Participation in Sports/PA between Municipal Councils and District Councils

	Number (Standardized residual)		χ^2	φ
	Municipal councils (n = 1,023)	District councils (n = 1,317)		
For physical health and fitness	580 (0.493)	751 (-0.493)	0.243	-0.013
For psychological and mental health/therapy	215 (-1.162)	305 (1.162)	1.351	0.030
For fun and enjoyment	185 (-1.794)	278 (1.794)	3.220	0.047
For social reasons	89 (-2.554)	158 (2.554)	6.521*	0.067
To be outdoors and enjoy nature	47 (-1.961)	86 (1.961)	3.846*	0.051
For work	10 (-1.662)	24 (1.662)	2.763	0.043

* $p < .05$, ** $p < .001$

Figure 3-24 and Table 3-27 present the survey results on differences in factors that promote participation in sports/PA between municipal councils and district councils. The survey focused on respondents who answered, “I participate in sports/PA at least once a week.” Participants were allowed to select multiple responses. Figure 3-24 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation factors with a total response count of 30 or more. The items showing significant differences in this statistical analysis were as follows:

- For social reasons: Significantly higher in district councils, and significantly lower in municipal councils
- To be outdoors and enjoy nature: Significantly higher in district councils, and significantly lower in municipal councils

Figure 3-25. Area Group Differences in Obstacles for Participated in Sports/PA

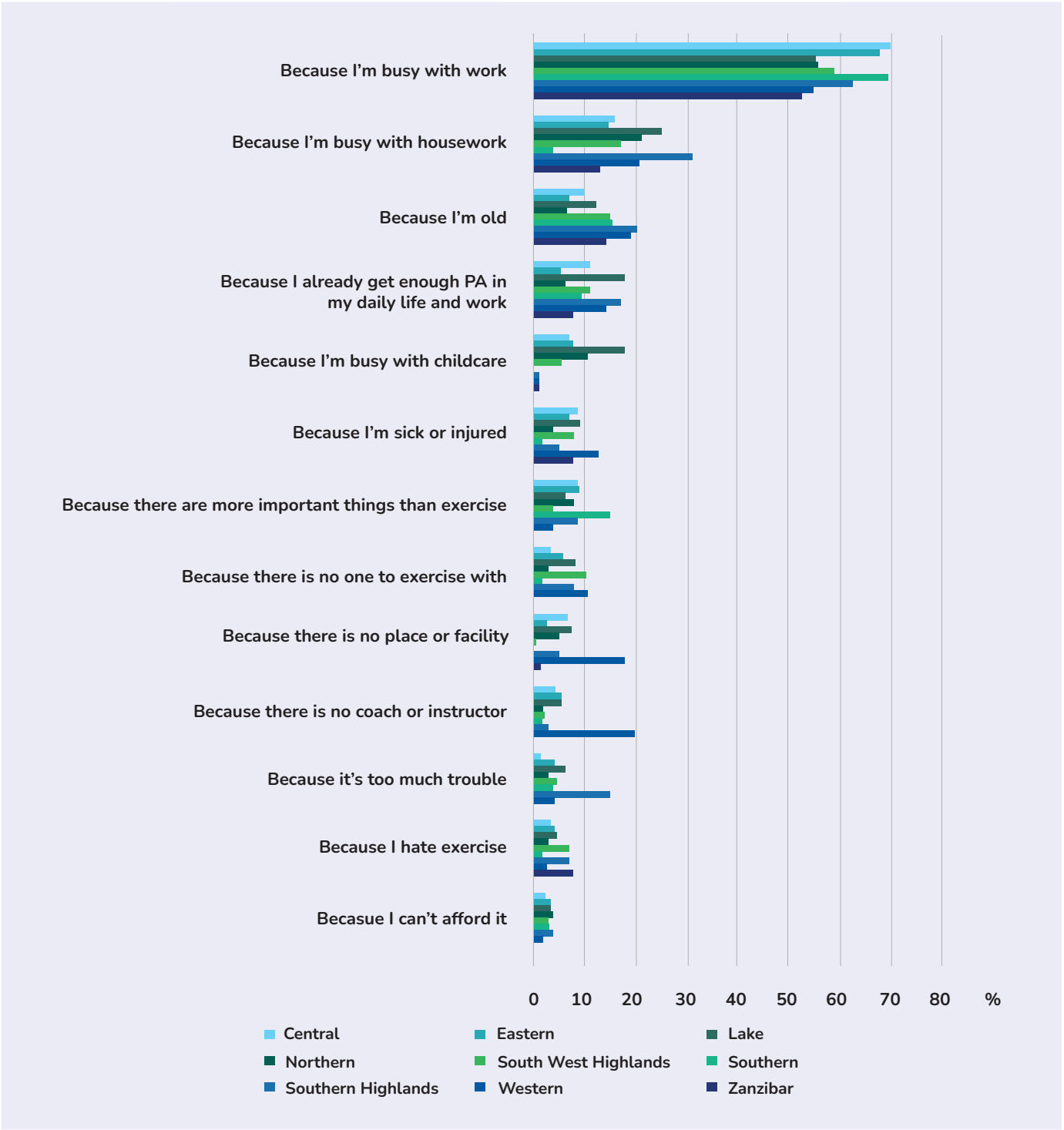

Table 3-28. Analysis Results of Area Group Differences in Obstacles for Participation in Sports/PA

	Number (Standardized residual)									χ^2	Cramer's V
	Central	Eastern	Lake	Northern	South West Highlands	Southern	Southern Highlands	Western	Zanzibar		
Because I'm busy with work	96 (2.458)	156 (2.551)	168 (-1.986)	89 (-1.302)	75 (-0.313)	36 (1.336)	62 (0.482)	77 (-1.368)	40 (-1.416)	20.907	0.126
Because I'm busy with housework	22 (-1.114)	34 (-2.039)	76 (2.717)	34 (0.548)	22 (-0.691)	2 (-2.924)	31 (3.040)	29 (0.339)	10 (-1.465)	29.828**	0.150
Because I'm old	14 (-0.787)	16 (-2.719)	37 (-0.060)	11 (-2.232)	19 (0.956)	8 (0.688)	20 (2.484)	27 (2.656)	11 (0.591)	24.675*	0.137
Because I already get enough PA in my daily life and work	15 (-0.263)	13 (-3.112)	54 (3.827)	10 (-2.264)	14 (-0.225)	5 (-0.463)	17 (1.788)	20 (1.036)	6 (-1.047)	29.066**	0.148
Because I'm busy with childcare	10 (-0.819)	18 (-0.801)	54 (5.899)	17 (0.658)	7 (-1.517)	0 (-2.344)	9 (-0.044)	4 (-2.750)	3 (-1.635)	44.991**	0.184
Because I'm sick or injured	12 (0.527)	16 (-0.422)	27 (0.958)	6 (-1.971)	10 (0.110)	1 (-1.581)	5 (-1.005)	18 (2.465)	6 (0.090)	13.305	0.100
Because there are more important things than exercise	0 (-3.514)	20 (0.773)	27 (1.080)	10 (-0.629)	10 (0.179)	2 (-1.016)	15 (3.018)	12 (0.520)	3 (-1.205)	23.872*	0.134
Because there is no one to exercise with	5 (-1.427)	14 (-0.277)	25 (1.412)	5 (-1.845)	13 (1.799)	1 (-1.365)	8 (0.665)	15 (2.142)	0 (-2.367)	20.928	0.126
Because there is no place or facility	9 (0.356)	6 (-2.326)	23 (1.431)	8 (-0.511)	1 (-2.569)	0 (-1.841)	5 (-0.369)	25 (6.359)	1 (-1.745)	54.766**	0.203
Because there is no coach or instructor	6 (-0.651)	13 (0.046)	17 (0.018)	3 (-2.181)	3 (-1.665)	1 (-1.174)	3 (-1.152)	28 (7.849)	0 (-2.185)	69.222**	0.229
Because it's too much trouble	2 (-1.974)	10 (-0.434)	19 (1.249)	5 (-1.114)	6 (-0.101)	2 (-0.362)	15 (4.903)	6 (-0.361)	0 (-2.040)	32.363**	0.156
Because I hate exercise	5 (-0.565)	10 (-0.206)	14 (0.012)	5 (-0.954)	9 (1.402)	1 (-0.942)	7 (1.216)	4 (-1.045)	6 (1.408)	7.961	0.078
Because I can't afford it	5 (0.171)	8 (0.073)	12 (0.614)	5 (-0.204)	4 (-0.163)	2 (0.182)	2 (-0.787)	7 (1.106)	0 (-1.684)	4.754	0.060

* $p < .00278$, ** $p < .001$

Figure 3-25 and Table 3-28 present the survey results on area group differences in obstacles to participation in sports/PA. The survey focused on respondents who answered, "I participate in sports/PA less than once a week." Participants were allowed to select multiple responses. Figure 3-25 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation obstacles with a total response count of 30 or more. By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00278$, with absolute values of adjusted residuals > 2.99 considered significant. The items showing significant area group differences in this statistical analysis were as follows:

- Because I'm busy with housework: Significantly higher in Southern Highlands
- Because I already get enough PA in my daily life and work: Significantly higher in Lake, and significantly lower in Eastern
- Because I'm busy with childcare: Significantly higher in Lake
- Because there are more important things than exercise: Significantly higher in Southern Highlands, and significantly lower in Central
- Because there is no place or facility: Significantly higher in Western
- Because there is no coach or instructor: Significantly higher in Western
- Because it's too much trouble: Significantly higher in Southern Highlands

Figure 3-26. Differences in Obstacles for Participation in Sports/PA between Municipal Councils and District Councils

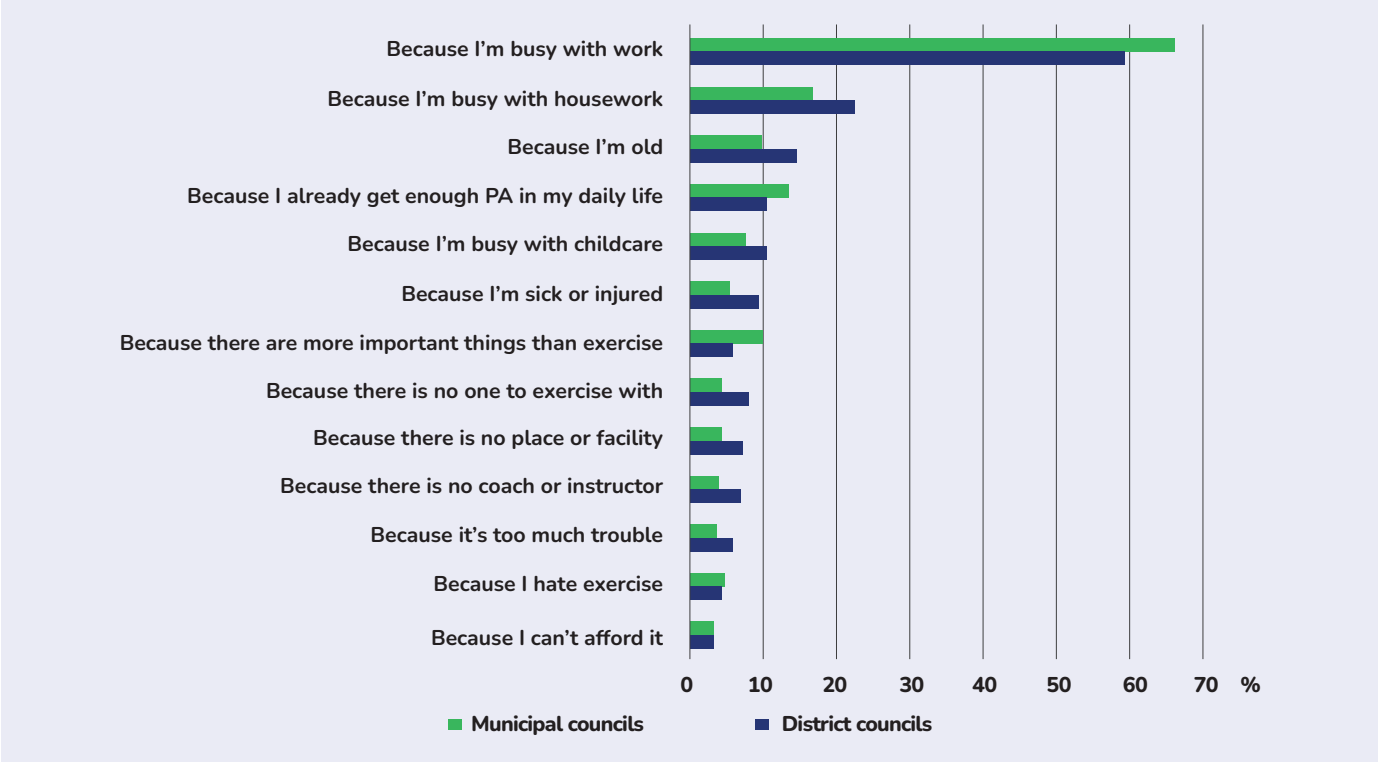

Table 3-29. Analysis Results of Differences in Obstacles for Participation in Sports/PA between Municipal Councils and District Councils

	Number (Standardized residual)		χ^2	φ
	Municipal councils	District councils		
Because I'm busy with work	374 (2.510)	425 (-2.510)	6.298*	-0.069
Because I'm busy with housework	96 (-2.576)	164 (2.576)	6.637**	0.071
Because I'm old	56 (-2.658)	107 (2.658)	7.064	0.073
Because I already get enough PA in my daily life and work	77 (1.587)	77 (-1.587)	2.518	-0.044
Because I'm busy with childcare	44 (-1.861)	78 (1.861)	3.462	0.051
Because I'm sick or injured	32 (-2.601)	69 (2.601)	6.767**	0.071
Because there are more important things than exercise	56 (2.611)	43 (-2.611)	6.819**	-0.072
Because there is no one to exercise with	27 (-2.441)	59 (2.441)	5.961*	0.067
Because there is no place or facility	25 (-2.197)	53 (2.197)	4.828*	0.060
Because there is no coach or instructor	23 (-2.310)	51 (2.310)	5.336*	0.063
Because it's too much trouble	22 (-1.697)	43 (1.697)	2.878	0.047
Because I hate exercise	28 (0.301)	33 (-0.301)	0.091	-0.008
Because I can't afford it	20 (0.057)	25 (-0.057)	0.003	-0.002

* $p < .05$, ** $p < .001$

Figure 3-26 and Table 3-29 present the survey results on differences in obstacles to participation in sports/PA between municipal councils and district councils. The survey focused on respondents who answered, "I participate in sports/PA less than once a week." Participants were allowed to select multiple responses. Figure 3-26 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation obstacles with a total response count of 30 or more. The items showing significant differences in this statistical analysis were as follows:

- Because I'm busy with work: Significantly higher in municipal councils, and significantly lower in district councils
- Because I'm busy with housework: Significantly higher in district councils, and significantly lower in municipal councils
- Because I'm old: Significantly higher in district councils, and significantly lower in municipal councils
- Because I'm sick or injured: Significantly higher in district councils, and significantly lower in municipal councils
- Because there are more important things than exercise: Significantly higher in municipal councils, and significantly lower in district councils
- Because there is no one to exercise with: Significantly higher in district councils, and significantly lower in municipal councils
- Because there is no place or facility: Significantly higher in district councils, and significantly lower in municipal councils
- Because there is no coach or instructor: Significantly higher in district councils, and significantly lower in municipal councils

3.4.4 The Places where People Participate in Sports and Physical Activity

Figure 3-27. Area Group Differences in Places where Sports/PA are Practiced

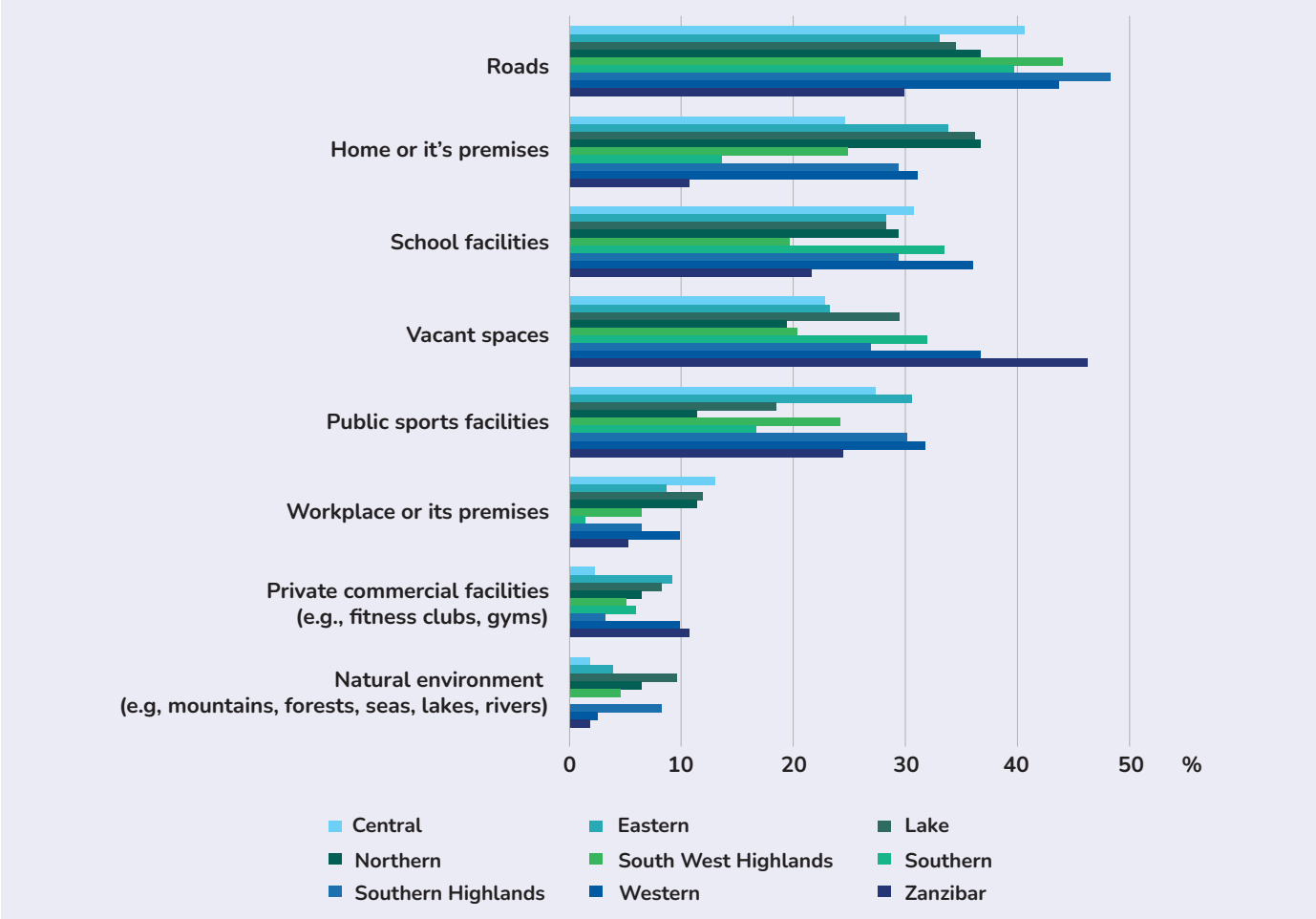

Table 3-30. Analysis Results of Area Group Differences in Places where Sports/PA are Practiced

	Number (Standardized residual)									χ^2	Cramer's V
	Central	Eastern	Lake	Northern	South West Highlands	Southern	Southern Highlands	Western	Zanzibar		
Roads	87 (0.752)	105 (-2.052)	152 (-1.788)	74 (-0.411)	67 (1.558)	26 (0.246)	59 (2.374)	79 (1.668)	11 (-1.042)	17.532	0.100
Home or its premises	53 (-2.138)	107 (1.164)	159 (2.715)	74 (1.903)	38 (-1.679)	9 (-3.083)	36 (-0.387)	56 (0.036)	4 (-2.665)	32.610**	0.137
School facilities	66 (0.605)	90 (-0.260)	125 (-0.284)	59 (0.133)	30 (-2.632)	22 (0.827)	36 (0.117)	65 (2.229)	8 (-0.976)	12.823	0.086
Vacant spaces	49 (-1.341)	74 (-1.458)	130 (1.634)	39 (-2.449)	31 (-1.818)	21 (1.008)	33 (0.098)	66 (3.226)	17 (2.717)	31.156**	0.134
Public sports facilities	59 (1.338)	97 (3.122)	82 (-2.943)	23 (-4.375)	37 (0.150)	11 (-1.368)	37 (1.729)	57 (2.607)	9 (0.091)	43.604**	0.158
Workplace or its premises	28 (1.651)	28 (-0.701)	53 (1.764)	23 (0.788)	10 (-1.434)	1 (-2.314)	8 (-1.286)	18 (0.053)	2 (-0.914)	15.043	0.093
Private commercial facilities (e.g., fitness clubs, gyms)	5 (-2.890)	29 (1.606)	37 (1.292)	13 (-0.343)	8 (-0.906)	4 (-0.310)	4 (-1.695)	18 (1.630)	4 (0.914)	17.481	0.100
Natural environments (e.g., mountains, forests, seas, lakes, rivers)	4 (-2.708)	13 (-1.547)	43 (3.925)	13 (0.328)	7 (-0.740)	0 (-2.078)	7 (-0.113)	15 (1.424)	1 (-0.839)	27.133**	0.125

* $p < .00278$, ** $p < .001$

Figure 3-27 and Table 3-30 present the survey results on area group differences in the places where sports/PA are practiced. The survey focused on respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-27 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only locations with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00278$, with absolute values of adjusted residuals > 2.99 considered significant. The items showing significant area group differences in this statistical analysis were as follows:

- Home or its premises: Significantly lower in Southern
- Vacant spaces: Significantly higher in Western
- Public sports facilities: Significantly higher in Eastern, and significantly lower in Northern
- Natural environments (e.g., mountains, forests, seas, lakes, rivers): Significantly higher in Lake

Figure 3-28. Differences in Places where Sports/PA are Practiced between Municipal Councils and District Councils

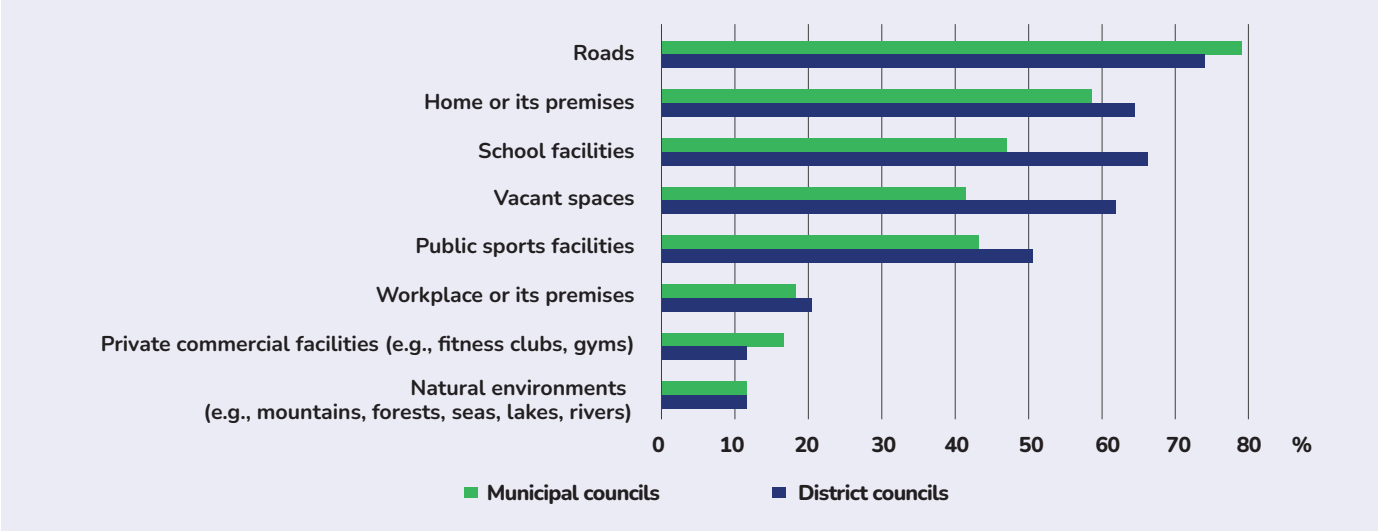

Table 3-31. Analysis Results of Differences in Places where Sports/PA are Practiced between Municipal Councils and District Councils

	Number (Standardized residual)		χ^2	φ
	Municipal councils	District councils		
Roads	299 (1.052)	361 (-1.052)	1.106	-0.025
Home or its premises	222 (-1.282)	314 (1.282)	1.645	0.031
School facilities	178 (-4.372)	323 (4.372)	19.113**	0.105
Vacant spaces	158 (-4.717)	302 (4.717)	22.249**	0.113
Public sports facilities	164 (-1.826)	248 (1.826)	3.333	0.044
Workplace or its premises	70 (-0.768)	101 (0.768)	0.590	0.018
Private commercial facilities (e.g., fitness clubs, gyms)	64 (2.022)	58 (-2.022)	4.088*	-0.048
Natural environments (e.g., mountains, forests, seas, lakes, rivers)	45 (-0.003)	58 (0.003)	0.000	0.000

* $p < .05$, ** $p < .001$

Figure 3-28 and Table 3-31 present the survey results on differences in the places where sports/PA are practiced between municipal councils and district councils. The survey focused on respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-28 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only locations with a total response count of 30 or more. The items showing significant differences in this statistical analysis were as follows:

- School facilities: Significantly higher in district councils, and significantly lower in municipal councils
- Vacant spaces: Significantly higher in district councils, and significantly lower in municipal councils
- Private commercial facilities (e.g., fitness clubs, gyms): Significantly higher in municipal councils, and significantly lower in district councils

3.4.5 Groups where People Participate in Sports and Physical Activity

Figure 3-29. Differences in Places where Sports/PA are Practiced between Municipal Councils and District Councils

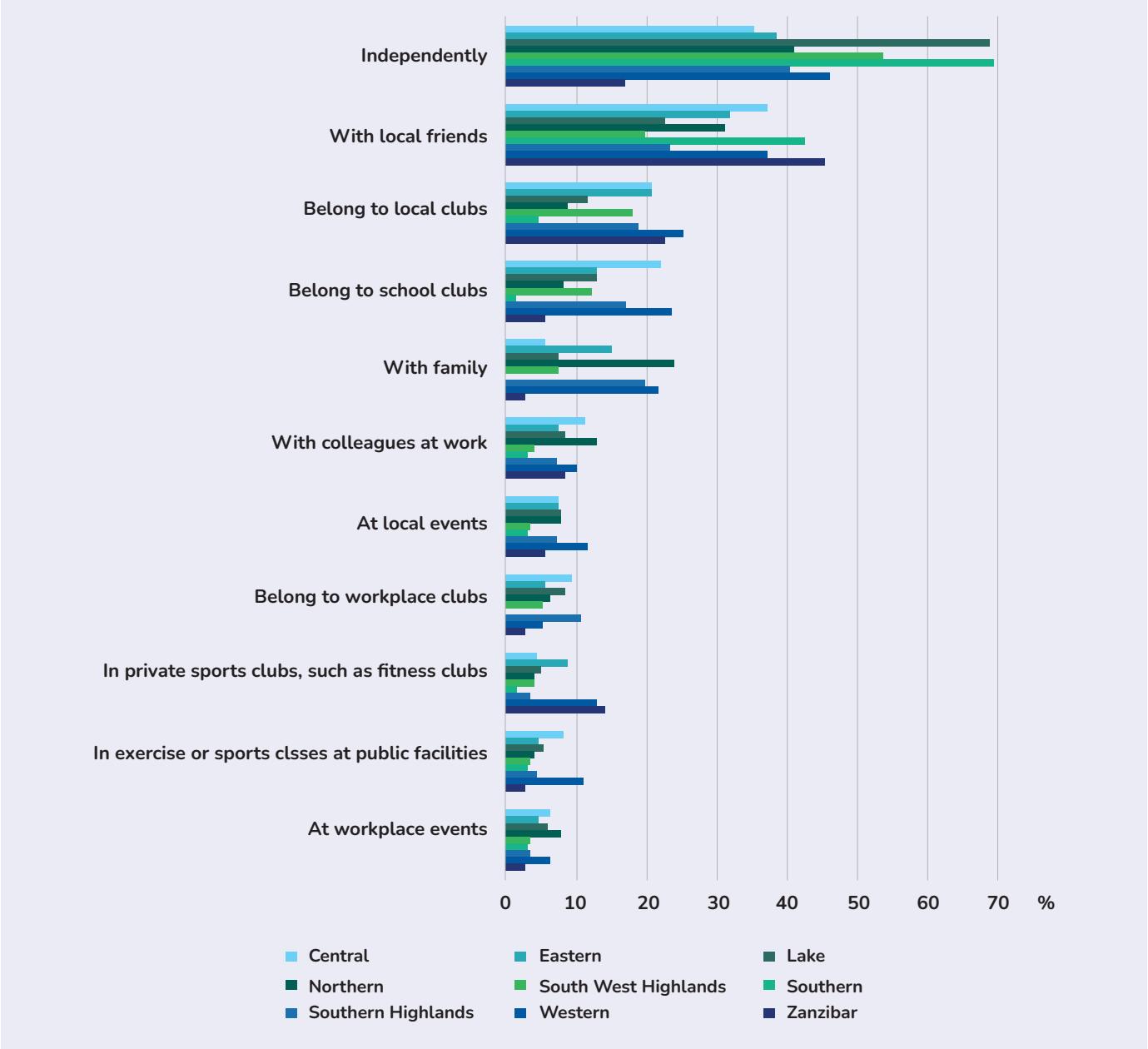

Table 3-32. Analvysis Results wof Differences in Places where Sports/PA are Practiced between Municipal Councils and District Councils

	Number (Standardized residual									χ^2	Cramer's V
	Central	Eastern	Lake	Northern	South West Highlands	Southern	Southern Highlands	Western	Zanzibar		
Independently	56 (-3.674)	107 (-3.931)	274 (8.807)	79 (-2.442)	78 (1.055)	44 (3.205)	45 (-1.944)	78 (-0.954)	6 (-3.835)	117.201**	0.271
With local friends	59 (2.238)	88 (0.869)	91 (-3.427)	60 (0.526)	29 (-2.661)	27 (2.302)	26 (-1.482)	63 (2.264)	16 (2.086)	36.444**	0.151
Belong to local clubs	33 (1.560)	58 (2.187)	47 (-2.943)	17 (-3.048)	26 (0.471)	3 (-2.573)	21 (0.700)	43 (3.275)	8 (1.011)	38.241**	0.155
Belong to school clubs	35 (3.052)	36 (-0.592)	52 (-0.722)	16 (-2.459)	18 (-0.630)	1 (-2.923)	19 (0.930)	40 (3.738)	2 (-1.447)	38.183**	0.155
With family	9 (-2.825)	42 (1.277)	31 (-3.501)	46 (4.910)	11 (-1.989)	0 (-3.114)	22 (2.271)	37 (3.696)	1 (-1.786)	71.685**	0.212
With colleagues at work	18 (1.297)	21 (-0.692)	34 (-0.097)	25 (2.301)	6 (-2.031)	2 (-1.586)	8 (-0.563)	17 (0.675)	3 (-0.021)	13.401	0.092
At local events	12 (0.025)	21 (0.026)	32 (0.418)	15 (0.147)	5 (-1.966)	2 (-1.350)	8 (-0.145)	20 (2.214)	2 (-0.419)	9.957	0.079
Belong to workplace clubs	15 (1.356)	16 (-0.813)	34 (1.483)	12 (-0.382)	8 (-0.696)	0 (-2.211)	12 (1.679)	9 (-0.869)	1 (-0.957)	13.272	0.091
In private sports clubs, such as fitness clubs	7 (-1.029)	25 (2.041)	20 (-1.243)	8 (-1.311)	6 (-1.139)	1 (-1.583)	4 (-1.223)	22 (3.766)	5 (1.950)	28.342**	0.134
In exercise or sports classes at public facilities	13 (1.463)	13 (-0.778)	22 (-0.160)	8 (-0.966)	5 (-1.222)	2 (-0.885)	5 (-0.557)	19 (3.292)	1 (-0.732)	15.822	0.100
At workplace events	10 (0.494)	13 (-0.635)	24 (0.545)	15 (1.512)	5 (-1.134)	2 (-0.830)	4 (-0.905)	11 (0.606)	1 (-0.693)	6.159	0.062

* p < .00278, ** p < .001

Figure 3-29 and Table 3-32 present the survey results on area group differences in the groups involved in sports/PA. The survey focused on respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-29 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only groups with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00278$, with absolute values of adjusted residuals > 2.99 considered significant. The items showing significant area group differences in this statistical analysis were as follows:

- Independently: Significantly higher in Lake and Southern, and significantly lower in Central, Eastern, and Zanzibar
- With local friends: Significantly lower in Lake
- Belong to local clubs: Significantly higher in Western, and significantly lower in Northern
- Belong to school clubs: Significantly higher in Central and Western
- With family: Significantly higher in Northern and Western, and significantly lower in Central and Southern
- In private sports clubs, such as fitness clubs: Significantly higher in Western

Figure 3-30. Differences in the Group Participating in Sports/PA between Municipal Councils and District Councils

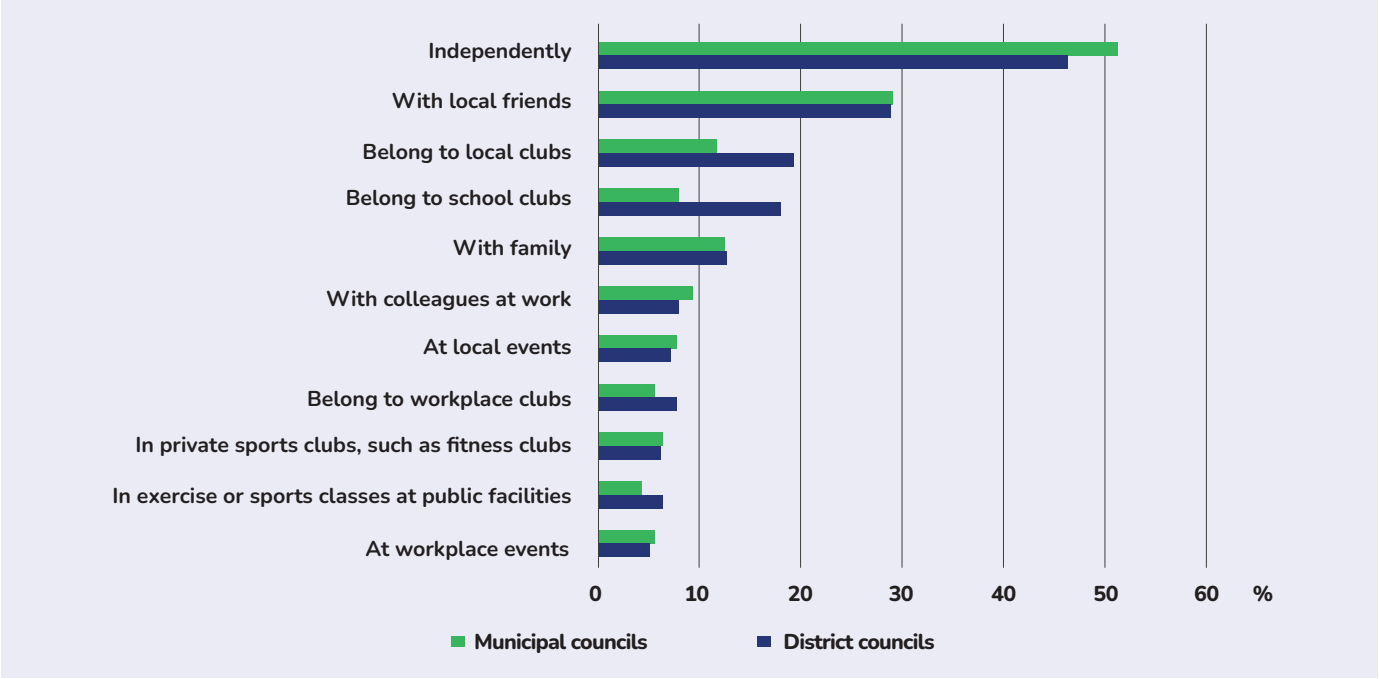

Table 3-33. Analysis Results of Differences in the Group Participating in Sports/PA between Municipal Councils and District Councils

	Number (Standardized residual)		χ^2	φ
	Municipal councils	District councils		
Independently	349 (2.029)	418 (-2.029)	4.117*	-0.051
With local friends	198 (0.125)	261 (-0.125)	0.016	-0.003
Belong to local clubs	80 (-4.109)	176 (4.109)	16.887**	0.103
Belong to school clubs	55 (-5.725)	164 (5.725)	32.775**	0.144
With family	84 (-0.208)	115 (0.208)	0.043	0.005
With colleagues at work	63 (1.007)	71 (-1.007)	1.015	-0.025
At local events	52 (0.352)	65 (-0.352)	0.124	-0.009
Belong to workplace clubs	38 (-1.597)	69 (1.597)	2.550	0.040
In private sports clubs, such as fitness clubs	43 (0.203)	55 (-0.203)	0.041	-0.001
In exercise or sports classes at public facilities	29 (-1.938)	59 (1.938)	3.756	0.049
At workplace events	38 (0.347)	47 (-0.347)	0.120	-0.009

* $p < .05$, ** $p < .001$

Figure 3-30 and Table 3-33 present the survey results on differences in the groups participating in sports/PA between municipal councils and district councils. The survey focused on respondents who participated in any sports/PA, excluding those who answered “not participated,” indicating no participation. Participants were allowed to select multiple responses. Figure 3-30 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only groups with a total response count of 30 or more. The items showing significant differences in this statistical analysis were as follows:

- Independently: Significantly higher in municipal councils, and significantly lower in district councils
- Belong to local clubs: Significantly higher in district councils, and significantly lower in municipal councils
- Belong to school clubs: Significantly higher in district councils, and significantly lower in municipal councils

3.5 Educational Attainment Difference

In this section, we report on differences based on educational attainment. Educational attainment is divided into six categories. The gender and age differences for each educational attainment are presented in Table 3-34.

Table 3-34. Gender and Age Differences for Each Educational Attainment

Educational Attainment	N	Gender		Age	
		Female	Male	Mean	SD
Not graduated school	281	147	134	38.22	22.944
Graduated primary school	847	424	423	39.93	17.181
Graduated O-level	683	319	364	31.37	13.758
Graduated A-level	89	42	47	30.10	13.472
Certificate or Diploma	125	55	70	36.98	15.983
Bachelor, Master or Doctor	315	138	177	38.12	12.865

3.5.1 Participation Situation for Sports and Physical Activity

Figure 3-31. Educational Attainment Differences in Participation Rates of Sports/PA

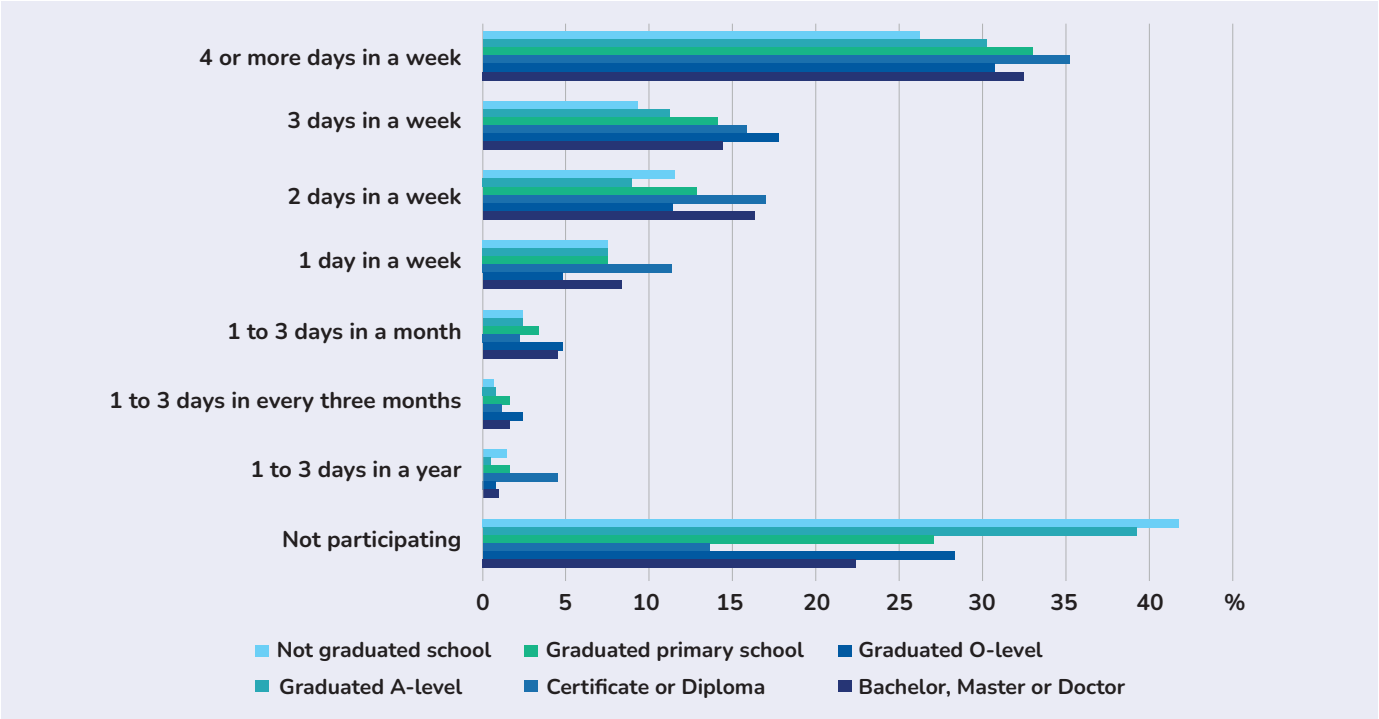

Table 3-35. Analysis Results of Educational Attainment Differences in Sports/PA Participation Rates

	Number (Standardized residual)						χ^2	Cramer's V
	Not graduated school	Graduated primary school	Graduated O-level	Graduated A-level	Certificate or Diploma	Bachelor, Master or Doctor		
4 or more days in a week	73 (-1.823)	253 (-0.643)	222 (1.226)	31 (0.865)	38 (-0.071)	101 (0.571)	95.665**	0.202
3 days in a week	26 (-1.826)	94 (-1.701)	95 (1.177)	14 (0.891)	22 (1.711)	45 (0.939)		
2 days in a week	32 (-0.179)	75 (-3.235)	87 (0.993)	15 (1.539)	14 (-0.182)	51 (2.659)		
1 day in a week	21 (-0.090)	64 (-0.070)	51 (-0.164)	10 (1.317)	6 (-1.217)	26 (0.466)		
1 to 3 days in a month	7 (-0.646)	21 (-1.342)	23 (0.443)	2 (-0.483)	6 (1.111)	14 (1.454)		
1 to 3 days in every three months	2 (-0.852)	7 (-1.360)	11 (1.042)	1 (-0.101)	3 (1.206)	5 (0.600)		
1 to 3 days in a year	4 (0.373)	5 (-2.032)	11 (1.182)	4 (2.917)	1 (-0.419)	3 (-0.428)		
Not participating	116 (3.640)	328 (5.422)	183 (-3.335)	12 (-3.782)	35 (-0.936)	70 (-3.922)		

* $p < .00104$, ** $p < .001$

Figure 3-31 and Table 3-35 present the survey results on educational attainment differences in participation rates for sports/PA. The percentage of people who answered, "I participate in sports/PA at least once a week" was 54.1% for not graduated school, 57.4% for graduated primary school, 66.6% for graduated O-level, 78.7% for graduated A-level, 64.0% for certificate or diploma, and 70.8% for bachelor, master or doctor. Including this, the percentage of people who answered, "I participate in sports/PA at least once a year" was 58.7% for not graduated school, 61.3% for graduated primary school, 73.2% for graduated O-level, 86.5% for graduated A-level, 72.0% for certificate or diploma, and 77.8% for bachelor, master or doctor. Conversely, the percentage of people who answered, "I do not participate in sports/PA" was 41.3% for not graduated school, 38.7% for graduated primary school, 26.8% for graduated O-level, 13.5% for graduated A-level, 28.0% for certificate or diploma, and 22.2% for bachelor, master or doctor.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00104$, with absolute values of adjusted residuals > 3.09 considered significant. The items showing significant differences by educational attainment in this statistical analysis were as follows:

- 2 days in a week: Significantly higher in graduated primary school
- Not participating: Significantly higher in not graduated school and graduated primary school, and significantly lower in graduated O-level, graduated A-level, and bachelor, master or doctor

3.5.2 Types of Sports and Physical Activity Participation

Figure 3-32. Educational Attainment Differences in Types of Sports/PA Participation

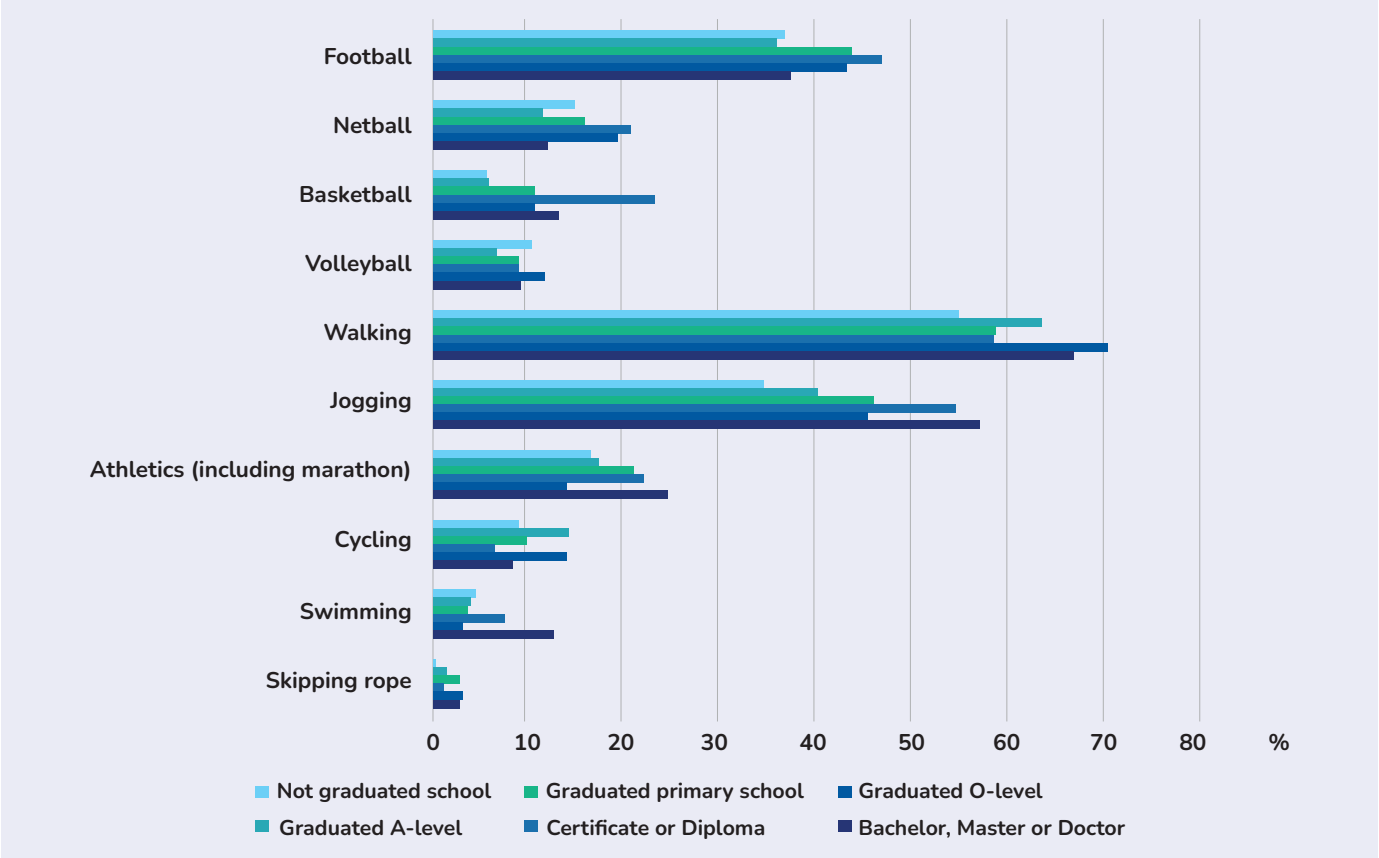

Table 3-36. Analysis Results of Educational Attainment Differences in Types of Sports/PA Participation

	Number (Standardized residual)						χ^2	Cramer's V
	Not graduated school	Graduated primary school	Graduated O-level	Graduated A-level	Certificate or Diploma	Bachelor, Master or Doctor		
Football	64 (-0.786)	198 (-2.094)	227 (2.333)	36 (1.302)	40 (0.748)	99 (-0.821)	9.972	0.078
Netball	26 (0.286)	64 (-2.133)	83 (1.366)	16 (1.668)	18 (1.479)	32 (-1.109)	10.179	0.079
Basketball	10 (-1.864)	34 (-3.412)	56 (0.990)	18 (4.133)	10 (0.367)	35 (2.088)	31.708**	0.139
Volleyball	18 (0.819)	38 (-1.817)	47 (0.340)	7 (0.116)	11 (1.122)	25 (0.456)	4.278	0.051
Walking	95 (-2.037)	348 (0.960)	305 (-1.689)	45 (-0.642)	65 (1.773)	177 (1.866)	12.607	0.027
Jogging	60 (-2.934)	220 (-2.850)	239 (0.602)	42 (1.719)	42 (0.095)	151 (4.307)	31.872**	0.139
Athletics (including marathon)	29 (-1.007)	95 (-1.640)	109 (0.998)	17 (0.560)	13 (-1.373)	65 (2.223)	9.644	0.076
Cycling	16 (-0.858)	79 (2.932)	51 (-1.155)	5 (-1.337)	13 (0.916)	23 (-1.397)	11.505	0.083
Swimming	8 (-0.605)	23 (-1.765)	20 (-2.089)	6 (0.848)	3 (-1.015)	34 (5.572)	33.238**	0.142

* $p < .00417$, ** $p < .001$

Figure 3-32 and Table 3-36 present the survey results on educational attainment differences in the types of sports/PA participated in. Respondents were allowed to select multiple answers. Figure 3-32 shows the percentage of each response, divided by the number of respondents who answered something other than "not participated," indicating they did not participate in any sports/PA, and includes only sports/PA with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00417$, with absolute values of adjusted residuals > 2.88 considered significant. The items showing significant differences by educational attainment in this statistical analysis were as follows:

- Basketball: Significantly higher in graduated A-level, and significantly lower in graduated primary school
- Walking: Significantly lower in not graduated school
- Jogging: Significantly higher in bachelor, master or doctor, and significantly lower in not graduated school
- Swimming: Significantly higher in bachelor, master or doctor

3.5.3 Factors that Promote or Discourage Participation in Sports and Physical Activity

Figure 3-33. Educational Attainment Differences in Factors for Participation in Sports/PA

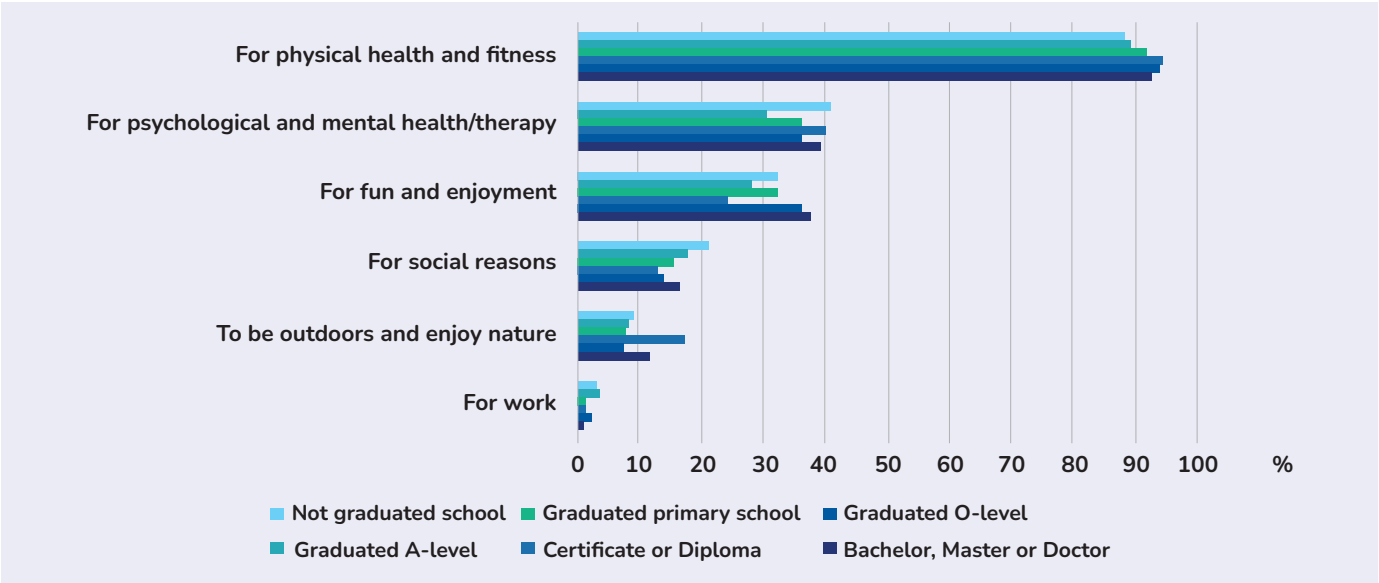

Table 3-37. Analysis Results of Educational Attainment Differences in Factors for Participation in Sports/PA

	Number (Standardized residual)						χ^2	Cramer's V
	Not graduated school	Graduated primary school	Graduated O-level	Graduated A-level	Certificate or Diploma	Bachelor, Master or Doctor		
For physical health and fitness	134 (-1.250)	433 (-1.534)	417 (0.835)	66 (1.006)	75 (0.907)	206 (0.825)	5.771	0.063
For psychological and mental health/therapy	62 (1.434)	148 (-2.816)	165 (0.442)	28 (0.803)	29 (0.140)	88 (1.336)	9.426	0.080
For fun and enjoyment	49 (0.171)	137 (-1.956)	147 (0.415)	17 (-1.353)	29 (0.915)	84 (2.108)	9.006	0.078
For social reasons	32 (1.454)	87 (0.767)	71 (-0.844)	9 (-0.919)	11 (-0.767)	37 (-0.121)	4.153	0.053
To be outdoors and enjoy nature	14 (0.057)	40 (-0.785)	35 (-1.228)	12 (2.404)	6 (-0.507)	26 (1.453)	8.991	0.078
For work	5 (0.836)	18 (2.484)	6 (-1.705)	1 (-0.509)	2 (0.108)	2 (-1.535)	9.011	0.078

* $p < .00417$, ** $p < .001$

Figure 3-33 and Table 3-37 present the survey results on educational attainment differences in factors that promote participation in sports/PA. The survey focused on respondents who answered, "I participate in sports/PA at least once a week." Participants were allowed to select multiple responses. Figure 3-33 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation factors with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00417$, with absolute values of adjusted residuals > 2.88 considered significant. Therefore, no items showed significant differences in this statistical analysis.

Figure 3-34. Educational Attainment Differences in Obstacles for Participation in Sports/PA

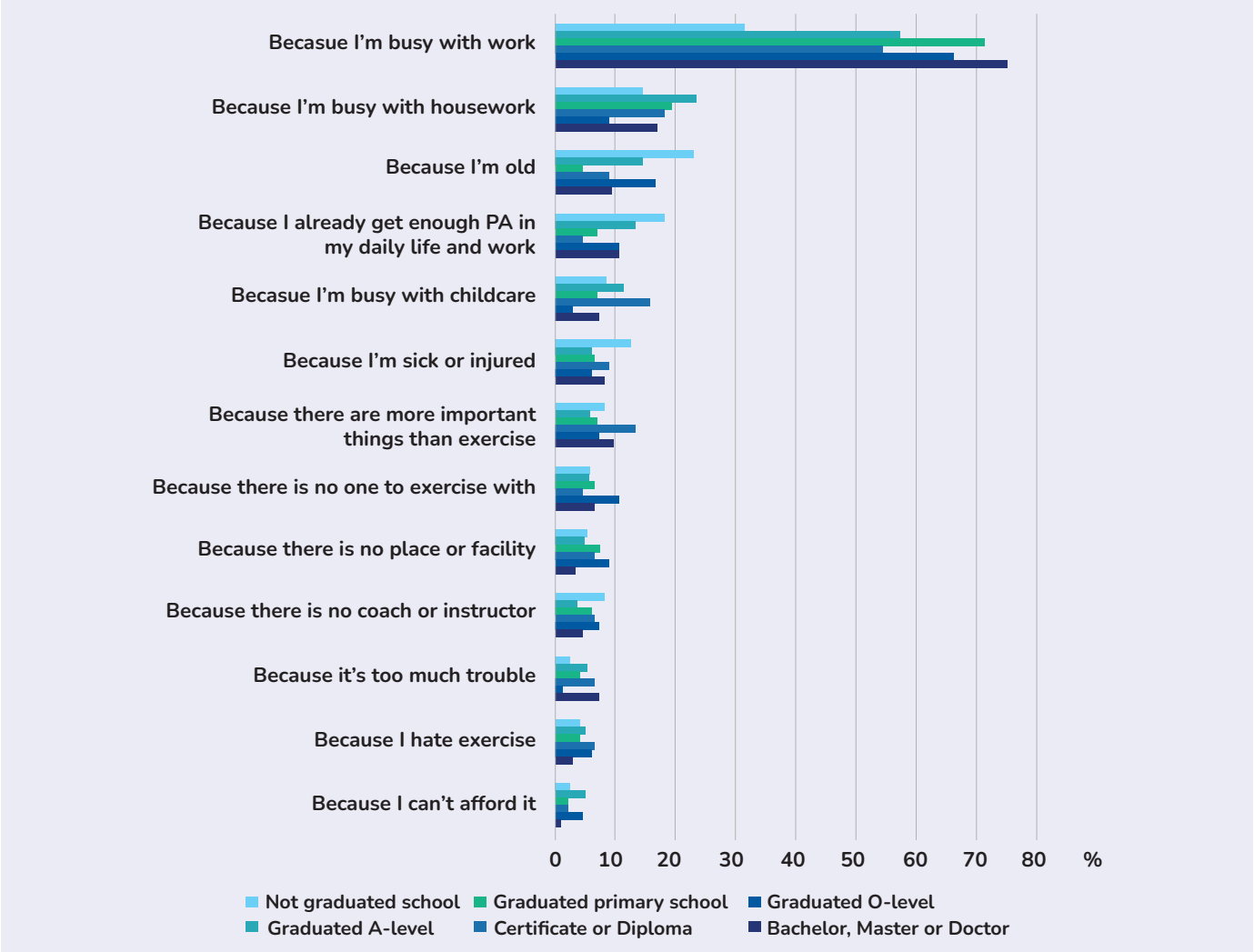

Table 3-38. Analysis Results of Educational Attainment Differences in Obstacles for Participation in Sports/PA

	Number (Standardized residual)						χ^2	Cramer's V
	Not graduated school	Graduated primary school	Graduated O-level	Graduated A-level	Certificate or Diploma	Bachelor, Master or Doctor		
Because I'm busy with work	57 (-8.541)	287 (-1.708)	261 (5.121)	24 (-0.800)	43 (0.981)	127 (4.211)	100.797**	0.276
Because I'm busy with housework	27 (-1.721)	118 (2.827)	72 (0.050)	8 (-0.247)	6 (-2.166)	29 (-0.868)	12.709	0.098
Because I'm old	42 (4.801)	73 (1.974)	17 (-5.229)	4 (-0.661)	11 (1.161)	16 (-1.205)	45.096**	0.185
Because I already get enough PA in my daily life and work	33 (2.981)	68 (1.740)	26 (-3.157)	2 (-1.491)	7 (-0.222)	18 (-0.426)	19.129*	0.120
Because I'm busy with childcare	16 (-0.188)	58 (2.338)	26 (-1.623)	7 (1.562)	2 (-1.754)	13 (-0.733)	11.092	0.092
Because I'm sick or injured	23 (2.770)	31 (-1.525)	25 (-0.659)	4 (0.372)	4 (-0.459)	14 (0.344)	8.825	0.082
Because there are more important things than exercise	15 (0.446)	30 (-1.592)	26 (-0.302)	6 (1.580)	5 (0.068)	17 (1.366)	5.860	0.067
Because there is no one to exercise with	11 (-0.246)	30 (-0.570)	25 (0.322)	2 (-0.534)	7 (1.434)	11 (0.008)	2.560	0.044
Because there is no place or facility	10 (-0.225)	26 (-0.832)	27 (1.436)	3 (0.266)	6 (1.173)	6 (-1.384)	5.014	0.062
Because there is no coach or instructor	15 (1.701)	20 (-1.961)	23 (0.696)	3 (0.361)	5 (0.757)	8 (-0.518)	6.146	0.068
Because it's too much trouble	5 (-1.439)	27 (0.644)	16 (-0.546)	3 (0.596)	1 (-1.290)	13 (1.793)	6.990	0.073
Because I hate exercise	8 (-0.129)	25 (0.531)	16 (-0.240)	3 (0.711)	4 (0.610)	5 (-1.095)	2.120	0.040
Because I can't afford it	5 (-0.509)	25 (2.505)	9 (-1.156)	1 (-0.419)	3 (0.555)	2 (-1.702)	8.085	0.078

* $p < .00417$, ** $p < .001$

Figure 3-34 and Table 3-38 present the survey results on educational attainment differences in obstacles to participation in sports/PA. The survey focused on respondents who answered, "I participate in sports/PA less than once a week." Participants were allowed to select multiple responses. Figure 3-34 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only participation obstacles with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00417$, with absolute values of adjusted residuals > 2.88 considered significant. The items showing significant differences by educational attainment in this statistical analysis were as follows:

- Because I'm busy with work: Significantly higher in graduated O-level and bachelor, master or doctor, and significantly lower in not graduated school
- Because I'm old: Significantly higher in not graduated school, and significantly lower in graduated O-level
- Because I already get enough PA in my daily life and work: Significantly higher in not graduated school, and significantly lower in graduated O-level

3.5.4 The Place where People Participate Sports and Physical Activity

Figure 3-35. Educational Attainment Differences in Places where Sports/PA are Practiced

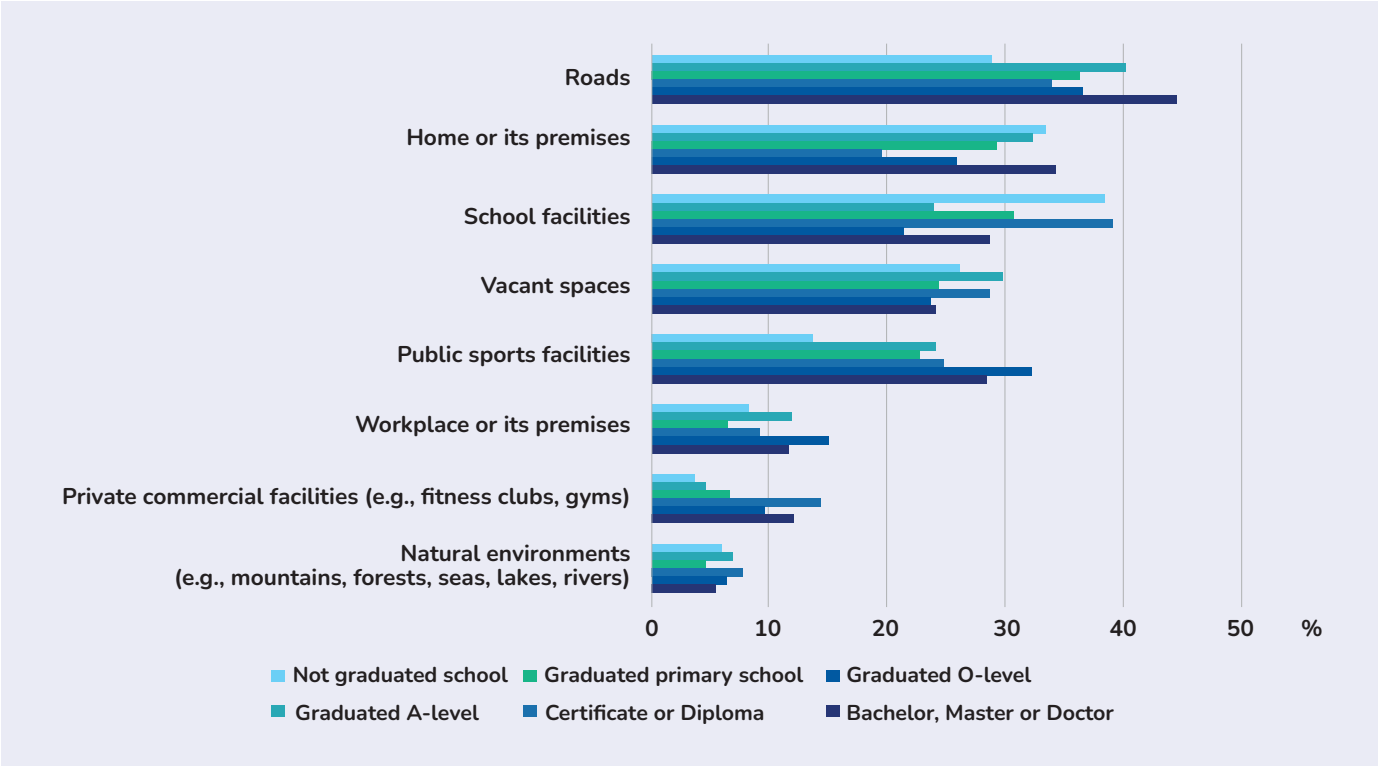

Table 3-39. Analysis Results of Educational Attainment Differences in Places where Sports/PA are Practiced

	Number (Standardized residual)						χ^2	Cramer's V
	Not graduated school	Graduated primary school	Graduated O-level	Graduated A-level	Certificate or Diploma	Bachelor, Master or Doctor		
Roads	53 (-2.650)	233 (1.349)	196 (-0.995)	26 (-0.774)	34 (-0.285)	118 (2.396)	13.693	0.089
Home or its premises	61 (0.778)	187 (0.907)	158 (-0.981)	15 (-2.205)	24 (-1.077)	91 (1.347)	9.033	0.072
School facilities	70 (2.982)	139 (-3.155)	166 (1.160)	30 (2.012)	20 (-1.599)	76 (-0.051)	21.807**	0.112
Vacant spaces	48 (-0.072)	172 (2.142)	132 (-1.304)	22 (0.431)	22 (-0.628)	64 (-0.922)	5.508	0.056
Public sports facilities	25 (-3.374)	140 (0.310)	123 (-0.630)	19 (0.208)	30 (1.997)	75 (1.917)	17.453*	0.100
Workplace or its premises	15 (-0.786)	69 (2.044)	35 (-3.166)	7 (-0.224)	14 (1.738)	31 (1.107)	14.188	0.090
Private commercial facilities (e.g., fitness clubs, gyms)	7 (-1.786)	27 (-2.726)	36 (-0.396)	11 (2.555)	9 (1.033)	32 (3.503)	25.567**	0.121
Natural environments (e.g., mountains, forests, seas, lakes, rivers)	11 (0.053)	40 (1.217)	25 (-1.546)	6 (0.711)	6 (0.222)	15 (-0.197)	3.197	0.043

* $p < .00417$, ** $p < .001$

Figure 3-35 and Table 3-39 present the survey results on educational attainment differences in the places where sports/PA are practiced. The survey focused on respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-35 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only locations with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00417$, with absolute values of adjusted residuals > 2.88 considered significant. The items showing significant differences by educational attainment in this statistical analysis were as follows:

- School facilities: Significantly higher in not graduated school, and significantly lower in graduated primary school
- Public sports facilities: Significantly lower in not graduated school
- Private commercial facilities (e.g., fitness clubs, gyms): Significantly higher in bachelor, master or doctor

3.5.5 Group where People Participate Sports and Physical Activity

Figure 3-36. Educational Attainment Differences in the Group Participating in Sports/PA

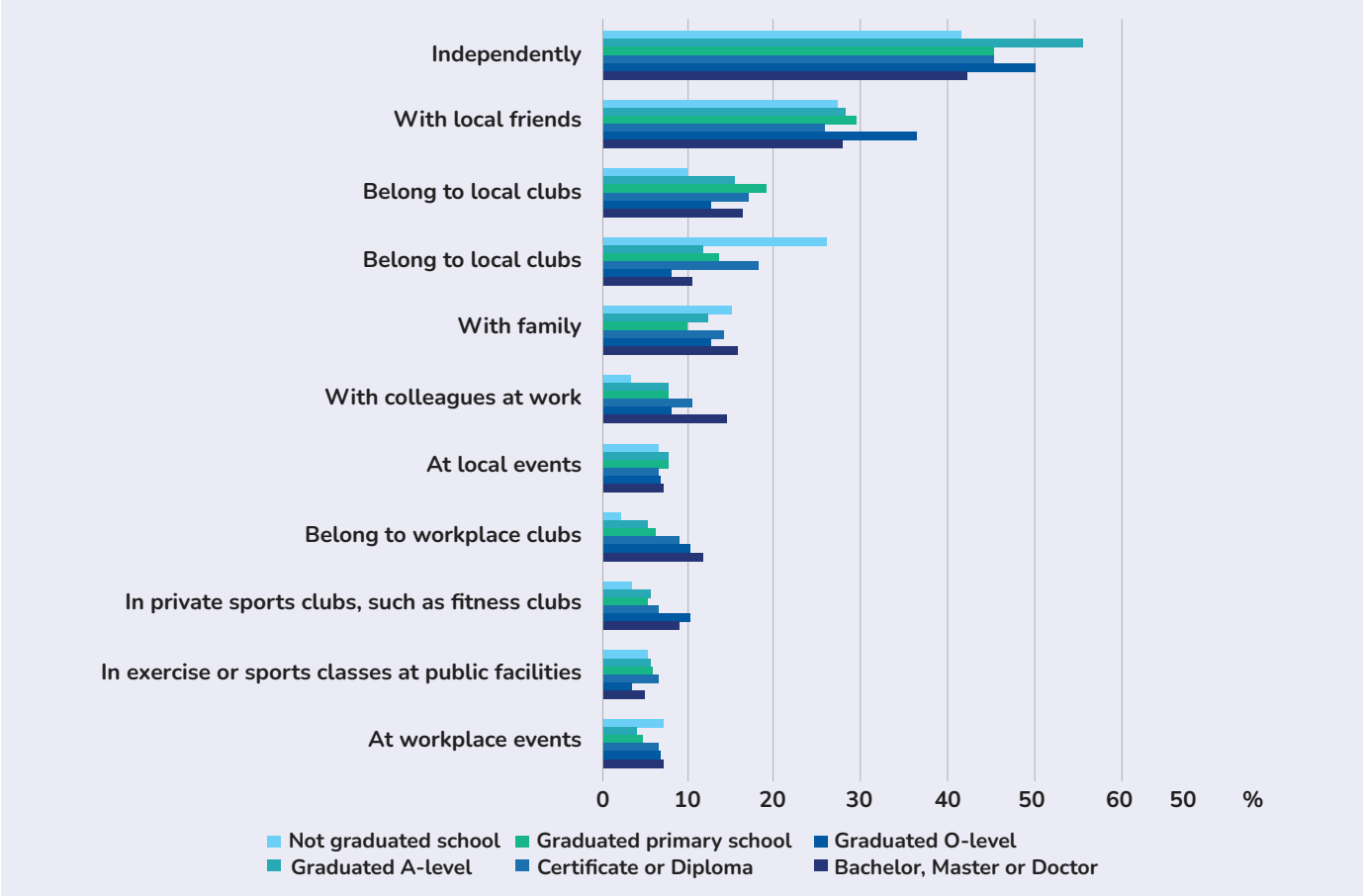

Table 3-40. Analysis Results of Educational Attainment Differences in the Group Participating in Sports/PA

	Number (Standardized residual)						χ^2	Cramer's V
	Not graduated school	Graduated primary school	Graduated O-level	Graduated A-level	Certificate or Diploma	Bachelor, Master or Doctor		
Independently	72 (-1.773)	283 (4.193)	227 (-1.483)	35 (-0.501)	44 (0.448)	106 (-1.949)	19.929*	0.112
With local friends	47 (-0.473)	143 (-0.365)	147 (0.352)	20 (-0.574)	32 (1.675)	70 (-0.286)	3.412	0.046
Belong to local clubs	17 (-2.349)	78 (-0.508)	96 (2.302)	13 (0.192)	11 (-0.902)	41 (0.171)	9.564	0.078
Belong to school clubs	45 (4.993)	59 (-1.671)	68 (-0.115)	14 (1.151)	7 (-1.594)	26 (-1.661)	30.132**	0.138
With family	26 (1.091)	62 (-0.216)	50 (-2.034)	11 (0.481)	11 (0.037)	39 (1.634)	6.407	0.063
With colleagues at work	6 (-2.469)	39 (-0.706)	38 (-0.789)	8 (0.635)	7 (-0.132)	36 (3.730)	18.337*	0.107
At local events	11 (-0.512)	39 (0.364)	38 (0.265)	5 (-0.298)	6 (-0.170)	18 (-0.085)	0.491	0.018
Belong to workplace clubs	4 (-2.441)	27 (-1.515)	31 (-0.557)	7 (0.848)	9 (1.384)	29 (3.372)	19.180*	0.110
In private sports clubs, such as fitness clubs	6 (-1.545)	29 (-0.490)	27 (-0.844)	5 (0.123)	9 (1.668)	22 (1.909)	8.498	0.073
In exercise or sports classes at public facilities	9 (-0.183)	29 (0.234)	30 (0.563)	5 (0.377)	3 (-0.875)	12 (-0.538)	1.388	0.030
At workplace events	12 (1.007)	21 (-1.448)	23 (-0.883)	5 (0.459)	6 (0.661)	18 (1.438)	5.228	0.057

* $p < .00417$, ** $p < .001$

Figure 3-36 and Table 3-40 present the survey results on educational attainment differences in the groups involved in sports/PA. The survey focused on respondents who participated in any sports/PA, excluding those who answered "not participated," indicating no participation. Participants were allowed to select multiple responses. Figure 3-36 shows the percentage of each response, divided by the number of respondents who answered this question, and includes only groups with a total response count of 30 or more.

By applying the Bonferroni correction, the statistical analysis set the significance level at $p < .00417$, with absolute values of adjusted residuals > 2.88 considered significant. The items showing significant differences by educational attainment in this statistical analysis were as follows:

- Independently: Significantly higher in graduated primary school
- Belong to school clubs: Significantly higher in not graduated school
- With colleagues at work: Significantly higher in bachelor, master or doctor
- Belong to workplace clubs: Significantly higher in bachelor, master or doctor

4. Perceptions of Physical Activity and Health

In this chapter, we clarify the characteristics of Tanzanian people's awareness of PA and health based on differences in various demographic factors. The questions analyzed in this chapter were the following five, and respondents answered on a 5-point Likert scale:

- Q1: Do you consider yourself healthy? (5 = healthy, 1 = not healthy)
- Q2: Do you think your physical strength is strong? (5 = strong, 1 = not strong)
- Q3: Do you think you participate in enough PA? (5 = participating enough, 1 = not participating enough)
- Q4: Are you satisfied with your current level of PA participation? (5 = satisfied, 1 = not satisfied)
- Q5: Do you like PA? (5 = like, 1 = dislike)

4.1 Gender Difference

Figure 4-1. Differences in Responses to Each Question Based on Gender

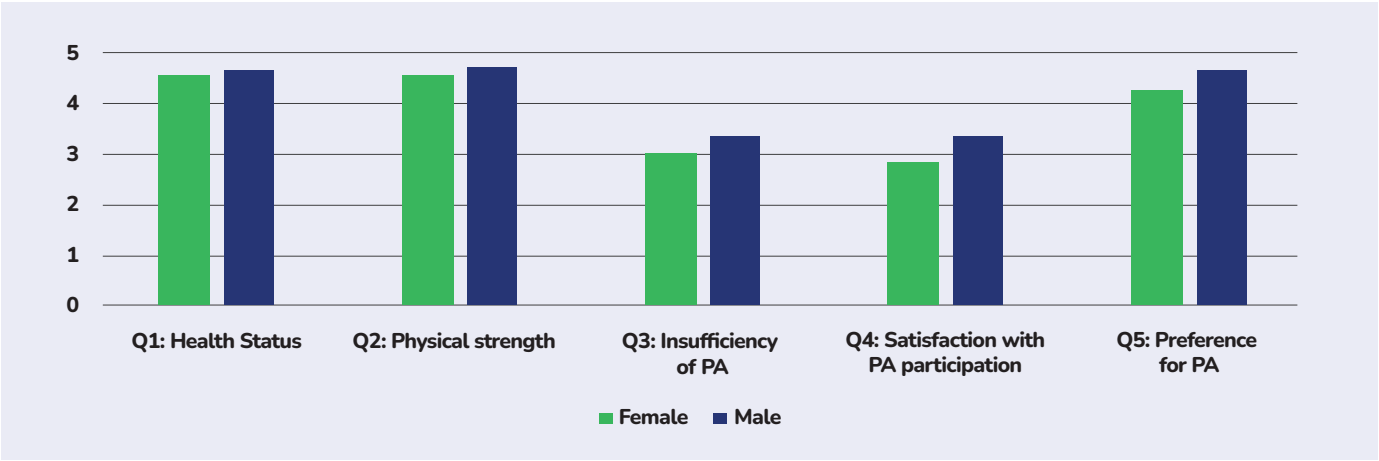

Table 4-1. Analysis of Gender Differences in Responses to Each Question

Question	Female (n = 1,125)		Male (n = 1,215)		Z score	*p* value	*r*
	Mean	SD	Mean	SD			
Do you consider yourself healthy?	4.540	0.930	4.675	0.810	-4.236**	$p < .001$	-0.088
Do you think your physical strength is strong?	4.525	0.982	4.688	0.804	-4.638**	$p < .001$	-0.096
Do you think you participate in enough PA?	3.030	1.690	3.365	1.642	-4.845**	$p < .001$	-0.100
Are you satisfied with your current level of PA participation?	2.828	1.789	3.373	1.785	-7.499**	$p < .001$	-0.155
Do you like PA?	4.264	1.389	4.682	0.951	-8.514**	$p < .001$	-0.176

* $p < .05$, ** $p < .001$

Figure 4-1 and Table 4-1 present the survey results on gender differences in awareness of PA and health. Across all survey items, males reported statistically significantly higher awareness compared to females.

4.2 Age Difference

Figure 4-2. Differences in Responses to Each Question Based on Age

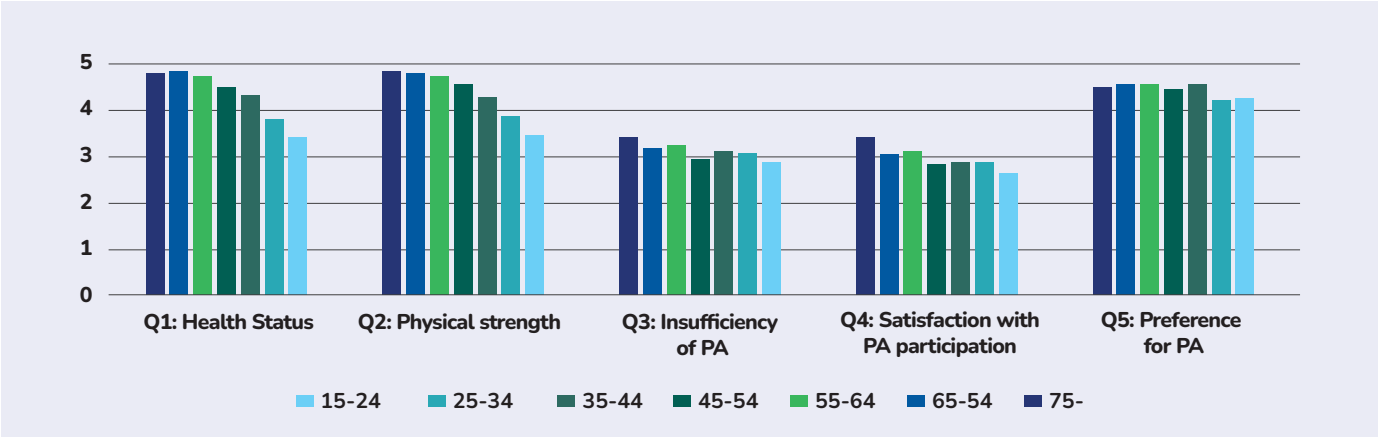

Table 4-2. Analysis of Age Differences in Responses to Each Question

Question	15-24 (n = 703)		25-34 (n = 611)		35-44 (n = 353)		45-54 (n = 212)		55-64 (n = 249)		65-74 (n = 164)		75- (n = 48)		H score	*p* value	Multiple Comparisons
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD			
Do you consider yourself healthy?	4.777	0.677	4.815	0.522	4.709	0.734	4.514	0.938	4.303	1.110	3.799	1.316	3.395	1.450	273.155**	$p < .001$	15-24 > 45-54, 55-64, 65-74, 75-**, 25-34 > 45-54, 55-64, 65-74, 75-**, 35-44 > 55-64, 65-74, 75-**, 45-54 > 65-74, 75-**, 55-64 > 65-74, 75-*
Do you think your physical strength is strong?	4.809	0.611	4.789	0.592	4.691	0.793	4.533	0.990	4.277	1.178	3.854	1.344	3.458	1.501	290.653**	$p < .001$	15-24 > 45-54, 55-64, 65-74, 75-**, 25-34 > 55-64, 65-74, 75-**, 35-44 > 55-64, 65-74, 75-**, 45-54 > 65-74, 75-**, 55-64 > 65-74, 75-**
Do you think you participate in enough PA?	3.387	1.660	3.177	1.693	3.212	1.644	2.953	1.697	3.112	1.674	3.055	1.618	2.896	1.704	17.973	$p = .006$	-
Are you satisfied with your current level of PA participation?	3.415	1.745	3.047	1.831	3.096	1.833	2.825	1.827	2.884	1.805	2.915	1.728	2.688	1.835	35.131**	$p < .001$	15-24 > 45-54, 55-64**
Do you like PA?	4.482	1.220	4.537	1.172	4.544	1.125	4.434	1.235	4.526	1.100	4.189	1.350	4.271	1.455	21.132*	$p < .00238$	25-34 > 65-74**

* $p < .00238$, ** $p < .001$

Figure 4-2 and Table 4-2 present the survey results on age differences in awareness of PA and health. By applying the Bonferroni correction, $p < .00238$ was considered statistically significant. Statistically significant differences were observed in all survey items except for "Q3: Do you think you participate in enough PA?" The results of multiple comparisons are shown in Table 4-2.

4.3 Religious Difference

Figure 4-3. Differences in Responses to Each Question Based on Religion

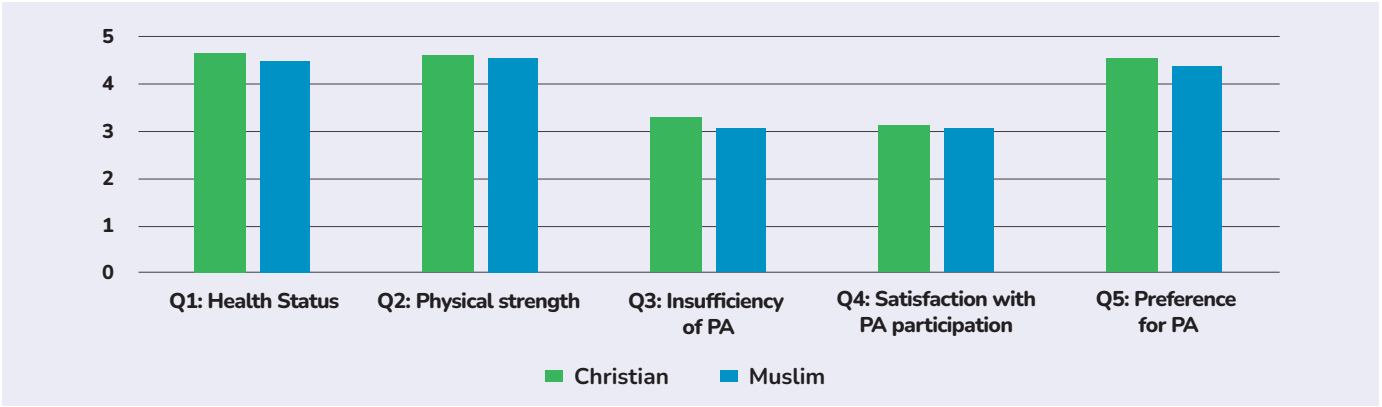

Table 4-3. Analysis of Religious Differences in Responses to Each Question

Question	Christian (n = 1,625)		Muslim (n = 703)		Z score	*p* value	*r*
	Mean	SD	Mean	SD			
Do you consider yourself healthy?	4.654	0.837	4.504	0.944	-4.479**	$p < .001$	-0.093
Do you think your physical strength is strong?	4.624	0.905	4.572	0.887	-2.754*	$p < .05$	-0.057
Do you think you participate in enough PA?	3.267	1.695	3.067	1.614	-2.834*	$p < .05$	-0.059
Are you satisfied with your current level of PA participation?	3.129	1.818	3.080	1.780	-0.874	$p = .382$	-0.018
Do you like PA?	4.521	1.162	4.397	1.273	-2.298*	$p < .05$	-0.048

* $p < .05$, ** $p < .001$

Figure 4-3 and Table 4-3 present the survey results on religious differences in awareness of PA and health. Christians reported statistically significantly higher scores than Muslims in all survey items except for "Q4: Are you satisfied with your current level of PA participation?"

4.4 Area Difference

Figure 4-4. Differences in Responses to Each Question Based on Area Group

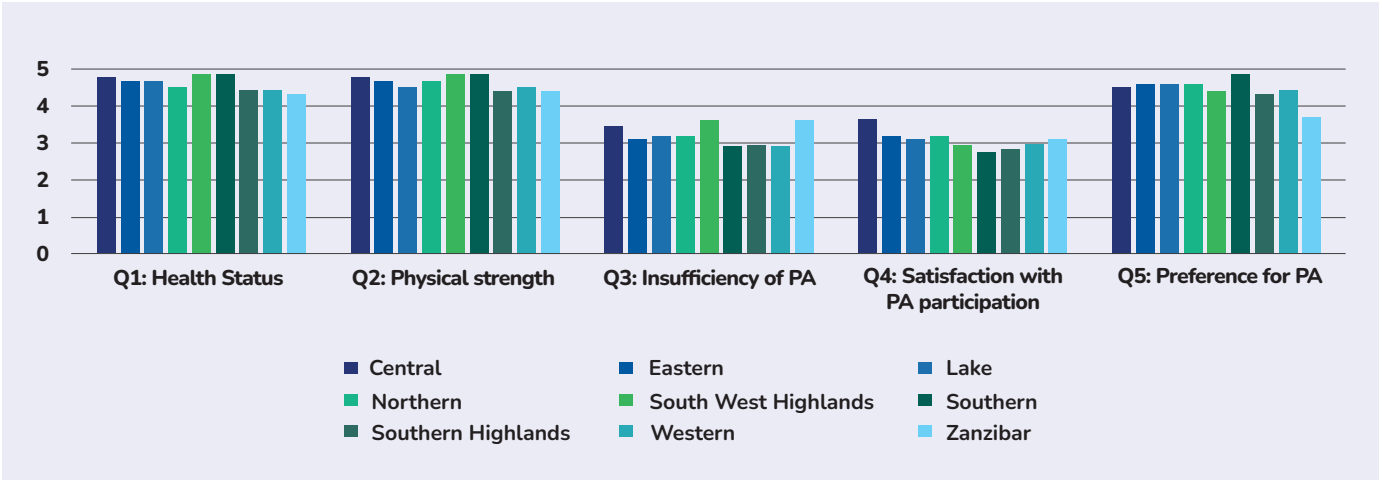

Table 4-4. Analysis of Area Group Differences in Responses to Each Question

Question	Central		Eastern		Lake		Northern		South West Highlands		Southern		Southern Highlands		Western		Zanzibar		H score	*p* value	Multiple Comparisons
	(n = 252)		(n = 399)		(n = 582)		(n = 280)		(n = 222)		(n = 103)		(n = 164)		(n = 238)		(n = 100)				
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD			
Do you consider yourself healthy?	4.752	0.778	4.682	0.815	4.640	0.879	4.511	0.914	4.797	0.665	4.825	0.452	4.400	1.059	4.384	1.000	4.320	0.963	94.776**	$p < .001$	Central > Northern, Southern, Western, Zanzibar**, Eastern > Western, Zanzibar**, Lake > Western, Zanzibar**, South West Highlands > Zanzibar**, Southern > Southern Highlands**, Southern Highlands > Western, Zanzibar**
Do you think your physical strength is strong?	4.734	0.761	4.652	0.872	4.517	1.052	4.671	0.794	4.815	0.671	4.845	0.364	4.415	1.027	4.492	0.971	4.400	0.841	74.651**	$p < .001$	Central > Southern, Zanzibar**, Eastern > Zanzibar**, Lake > Southern Highlands**, Northern > Zanzibar**, South West Highlands > Zanzibar**, Southern > Southern Highlands**, Southern Highlands > Western, Zanzibar**
Do you think you participate in enough PA?	3.476	1.583	3.065	1.663	3.186	1.739	3.218	1.626	3.595	1.636	2.922	1.690	2.921	1.650	2.962	1.732	3.600	1.326	39.398*	$p < .00139$	Southern > Southern Highlands*
Are you satisfied with your current level of PA participation?	3.639	1.673	3.216	1.825	3.062	1.828	3.214	1.765	2.901	1.883	2.767	1.848	2.854	1.766	2.924	1.746	3.050	1.777	36.764**	$p < .001$	Central > Southern, Western**
Do you like PA?	4.468	1.238	4.586	1.094	4.576	1.099	4.529	1.126	4.392	1.320	4.806	0.829	4.287	1.400	4.424	1.187	3.730	1.607	70.053**	$p < .001$	Zanzibar < Central, Eastern, Lake, Northern, South West Highlands, Southern Highlands, Western**

* $p < .00139$, ** $p < .001$

Figure 4-5. Differences in Responses to each question between Municipal Councils and District Councils

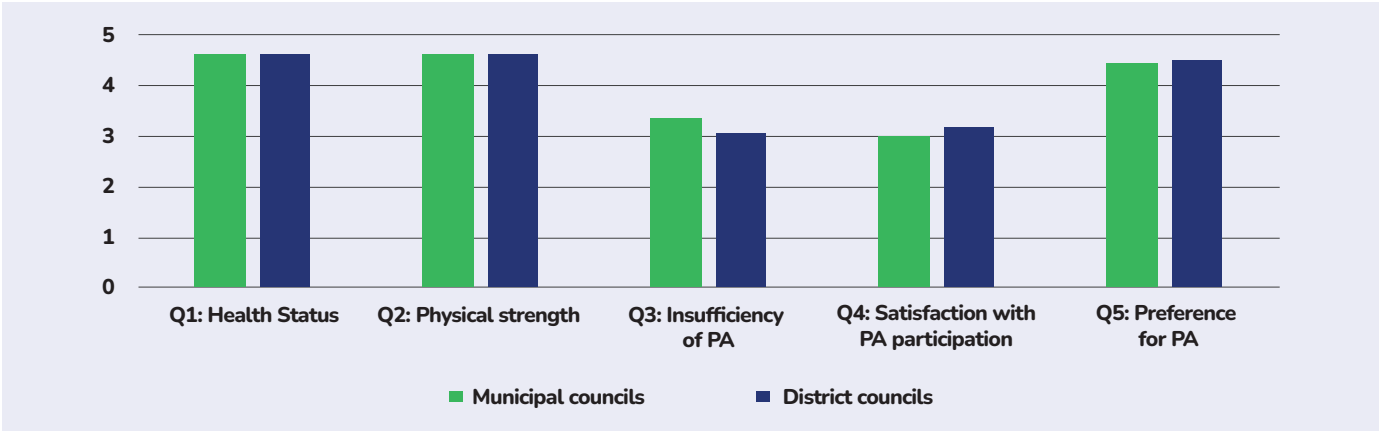

Table 4-5. Analysis of Differences in Responses to Each Question between Municipal Councils and District Councils

Question	Municipal councils (n = 1,023)		District councils (n = 1,317)		Z score	*p* value	*r*
	Mean	SD	Mean	SD			
Do you consider yourself healthy?	4.588	0.903	4.628	0.846	-0.792	$p = .428$	-0.016
Do you think your physical strength is strong?	4.589	0.909	4.626	0.889	-1.628	$p = .104$	-0.034
Do you think you participate in enough PA?	3.360	1.658	3.083	1.675	-4.045**	$p < .001$	-0.084
Are you satisfied with your current level of PA participation?	3.035	1.800	3.170	1.811	-1.689	$p = .091$	-0.035
Do you like PA?	4.442	1.244	4.512	1.164	-1.122	$p = .262$	-0.023

* $p < .05$, ** $p < .001$

Figure 4-4 and Table 4-4 present the survey results on area group differences in awareness of PA and health. By applying the Bonferroni correction, $p < .00139$ was considered statistically significant. Statistically significant differences were observed in all survey items. The results of multiple comparisons are shown in Table 4-4.

Figure 4-5 and Table 4-5 present the survey results on differences in awareness of PA and health between municipal councils and district councils. Only for "Q3: Do you think you participate in enough PA?" did municipal councils report a statistically significantly higher score than district councils.

4.5 Educational Attainment Difference

Figure 4-6. Differences in Responses to Each Question Based on Educational Attainment

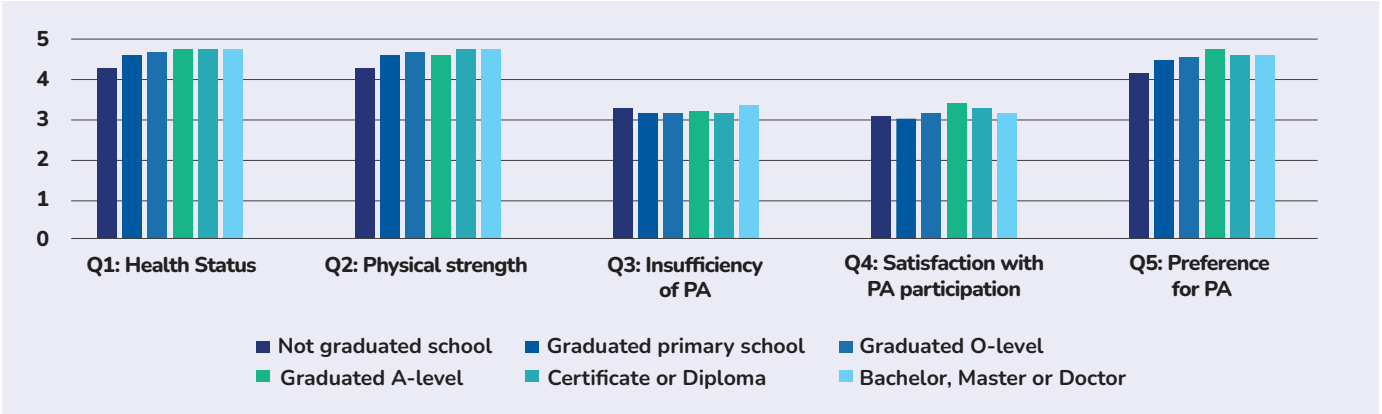

Table 4-6. Analysis of Educational Background Differences in Responses to Each Question

Question	Not graduated		Graduated primary school		Graduated O-level		Graduated A-level		Certificate or Diploma		Bachelor, Master or Doctor		H score	*p* value	Multiple Comparisons
	(n = 281)		(n = 847)		(n = 683)		(n = 89)		(n = 125)		(n = 315)				
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD			
Do you consider yourself healthy?	4.289	1.214	4.579	0.881	4.691	0.763	4.761	0.567	4.736	0.772	4.713	0.733	39.954**	$p < .001$	Not graduated < Graduated O-level, Certificate or Diploma, Bachelor, Master or Doctor**
Do you think your physical strength is strong?	4.295	1.246	4.584	0.887	4.700	0.788	4.618	0.935	4.712	0.801	4.721	0.726	40.233**	$p < .001$	Not graduated < Graduated O-level, Bachelor, Master or Doctor**
Do you think you participate in enough PA?	3.302	1.596	3.144	1.691	3.184	1.692	3.247	1.674	3.128	1.685	3.337	1.648	3.796	$p = .579$	-
Are you satisfied with your current level of PA participation?	3.060	1.785	3.000	1.824	3.179	1.797	3.404	1.704	3.264	1.810	3.165	1.818	9.007	$p = .109$	-
Do you like PA?	4.167	1.398	4.453	1.236	4.520	1.172	4.730	0.863	4.592	1.071	4.638	1.042	42.065**	$p < .001$	Not graduated < Graduated primary school, Graduated O-level, Graduated A-level, Bachelor, Master or Doctor**

* $p < .00333$, ** $p < .001$

Figure 4-6 and Table 4-6 present the survey results on educational attainment differences in awareness of exercise and health. By applying the Bonferroni correction, $p < .00333$ was considered statistically significant. Statistically significant differences were observed in items Q1, Q2, and Q5. The results of multiple comparisons are shown in Table 4-6.

4.6 Disability Difference

Figure 4-7. Differences in Responses to Each Question Based on Disability

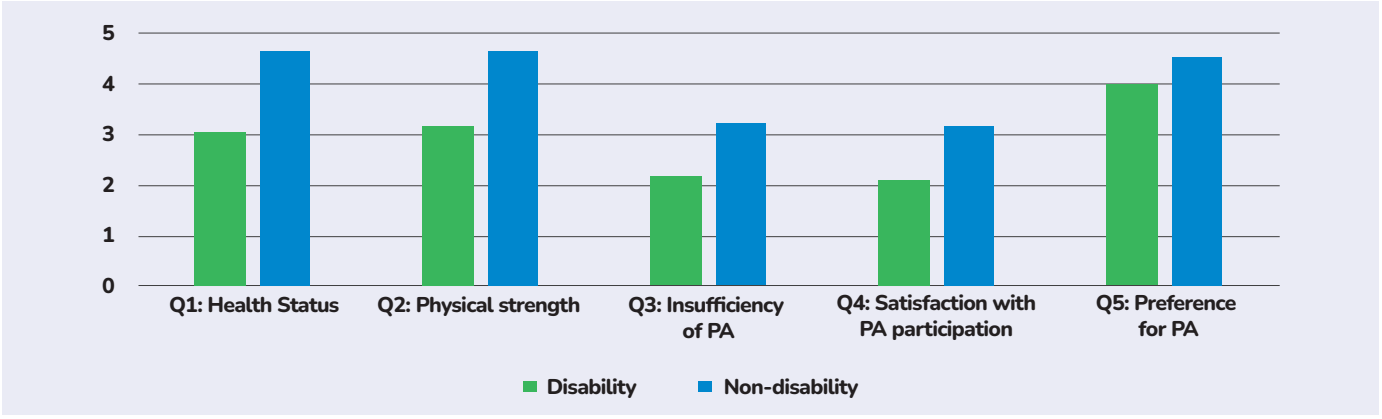

Table 4-7. Analysis of Differences in Responses to Each Question Based on Disability

Question	Disability		Non-disability		Z score	*p* value	*r*
	(n = 62)		(n = 2,278)				
	Mean	SD	Mean	SD			
Do you consider yourself healthy?	3.034	1.586	4.652	0.805	-10.264**	$p < .001$	-0.212
Do you think your physical strength is strong?	3.177	1.684	4.649	0.833	-9.629**	$p < .001$	-0.199
Do you think you participate in enough PA?	2.194	1.513	3.231	1.669	-5.054**	$p < .001$	-0.104
Are you satisfied with your current level of PA participation?	2.113	1.392	3.138	1.809	-4.781**	$p < .001$	-0.099
Do you like PA?	3.984	1.531	4.495	1.187	-3.471**	$p < .001$	-0.072

* $p < .05$, ** $p < .001$

Figure 4-7 and Table 4-7 present the survey results on differences in awareness of PA and health based on disability. In all survey items, people without disabilities reported statistically significantly higher awareness compared to people with disabilities.

4.7 Sick Difference

Figure 4-8. Differences in Responses to Each Question Based on Diseases in the Past 12 Months

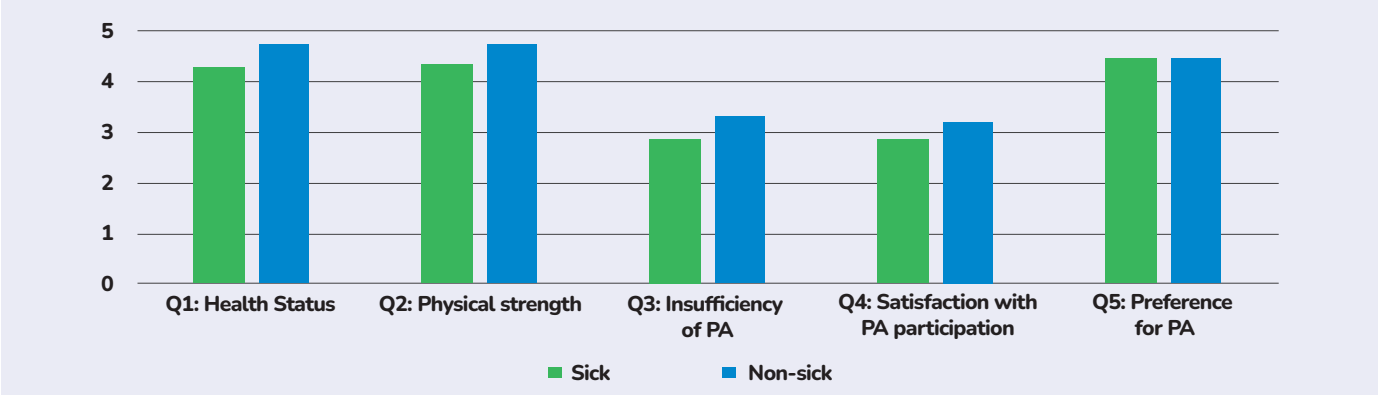

Table 4-8. Differences in Responses to Each Question Based on a Disease in the Past 12 Months

Question	Sick (n = 809)		Non-sick (n = 1,531)		Z score	*p* value	*r*
	Mean	SD	Mean	SD			
Do you consider yourself healthy?	4.338	1.122	4.751	0.667	-10.001**	$p < .001$	-0.207
Do you think your physical strength is strong?	4.35	1.156	4.747	0.687	-9.629**	$p < .001$	-0.199
Do you think you participate in enough PA?	2.892	1.705	3.368	1.633	-6.335**	$p < .001$	-0.131
Are you satisfied with your current level of PA participation?	2.913	1.802	3.216	1.801	-3.910**	$p < .001$	-0.081
Do you like PA?	4.461	1.233	4.492	1.182	-0.125	$p = .901$	-0.003

* $p < .05$, ** $p < .001$

Figure 4-8 and Table 4-8 present the survey results on differences in awareness of PA and health based on having had diseases in the past 12 months. People who were not sick in the last 12 months reported statistically significantly higher scores than those who were sick in all survey items except for “Q5: Do you like PA?”

5. The Value of Sports and Physical Activity, and Sporting Events

In this chapter, the perceived values of sports/PA among Tanzanians, as well as the types of sporting events they desire, are summarized in graphs to inform future policy considerations. No statistical comparisons were made for each item, but an overall picture and an overview of the gender differences are provided below.

5.1 The Value of Sports and Physical Activity Perceived by the Public

Figure 5-1. The Value of Sports/PA Perceived by the Public and Gender Differences

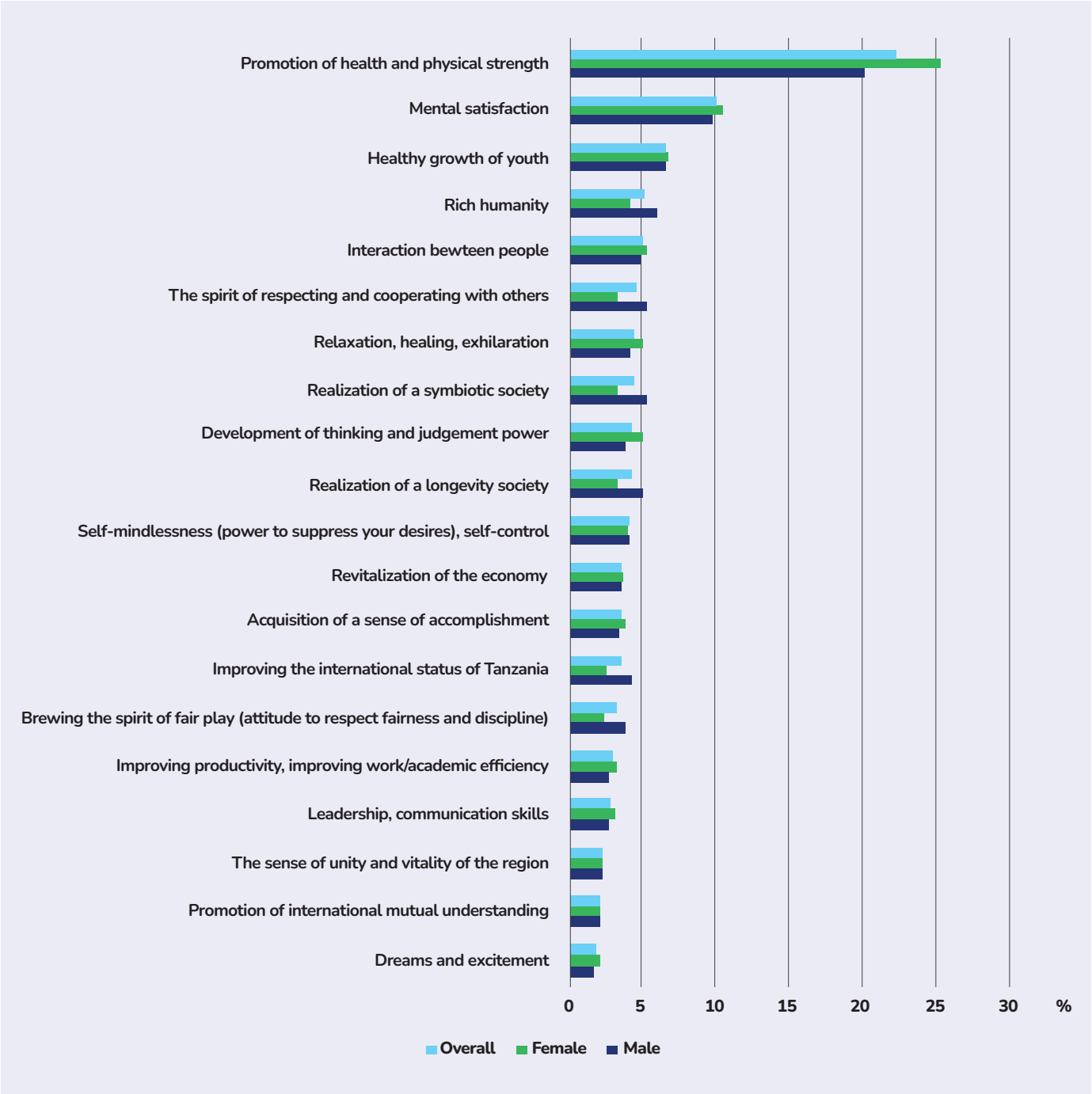

Figure 5-1 presents the survey results on the value of sports/PA as perceived by the public. Respondents were allowed to select multiple answers. The graph shows the percentage obtained by dividing the number of each response by the total number of responses. The most recognized values of sports were:

- 1st place: Promotion of health and physical strength (overall: 22.1%, female: 25.1%, male: 20.0%)
- 2nd place: Mental satisfaction (overall: 10.0%, female: 10.5%, male: 9.6%)
- 3rd place: Healthy growth of youth (overall: 23.3%, female: 6.7%, male: 6.5%)

5.2 The Types of Sporting Events the Public Desires

Figure 5-2. The Types of Sporting Events Desired by the Public and Gender Differences

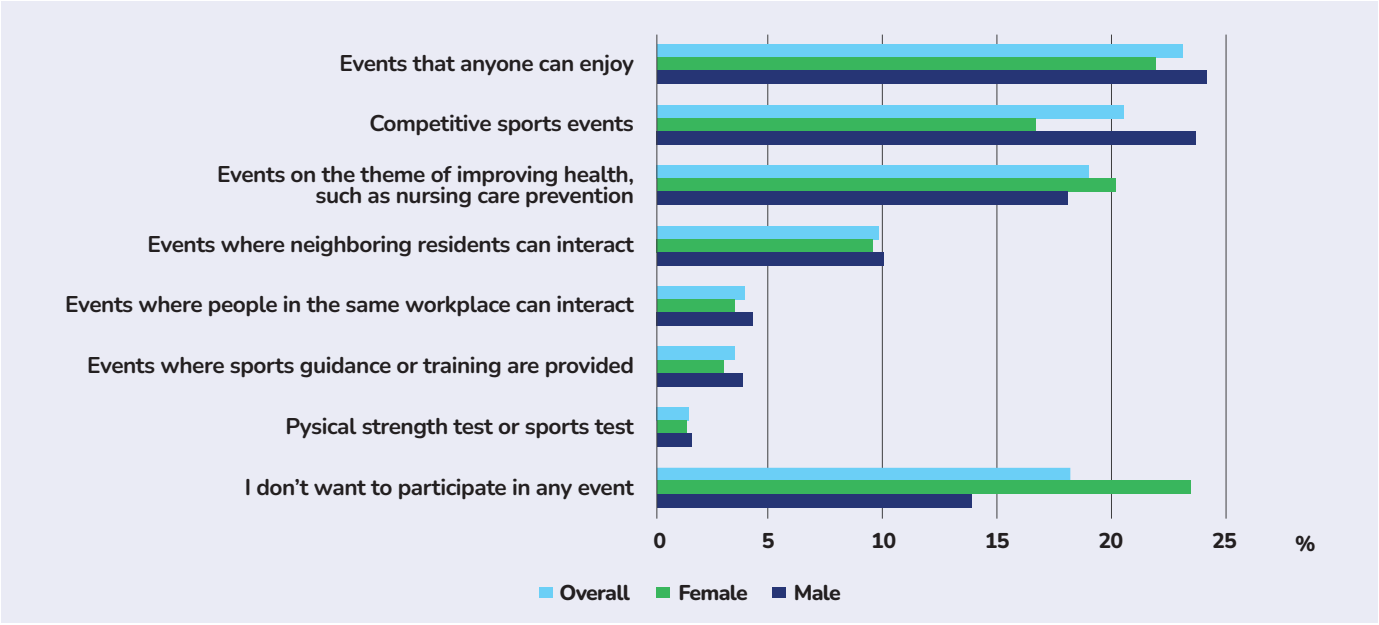

Figure 5-2 presents the survey results on the types of sporting events the public desires. Respondents were allowed to select multiple answers. The graph shows the percentage obtained by dividing the number of each response by the total number of responses. The types of sporting events the public desired were:

- 1st place: Events that anyone can enjoy (overall: 23.3%, female: 22.0%, male: 24.3%)
- 2nd place: Competitive sports events (overall: 20.6%, female: 16.8%, male: 23.8%)
- 3rd place: Events on the theme of improving health, such as nursing care prevention (overall: 19.1%, female: 20.2%, male: 18.2%)

6. Discussion and Recommendation

Based on the above findings, this chapter examines the current state of participation in sports/PA in Tanzania from a demographic perspective. Additionally, by referencing similar surveys conducted in other countries and previous research, the survey results were analyzed objectively, and suggestions provided guidelines to policies and measures that should be implemented throughout Tanzania.

6.1 Gender Related Situation and Issues

In this section, we examine gender differences. The survey results on sports/PA participation revealed that men had significantly higher scores for "4 or more days in a week," which indicate active participation in sports/PA, while women had significantly higher scores for "not participating," which reflects no participation. This clearly demonstrates that women have fewer opportunities to engage in sports/PA than men. The WHO[19] recommends that adults aged 18-64 should engage in at least 150 minutes of moderate aerobic activity or at least 75 minutes of vigorous aerobic activity throughout the week, with strength exercises for major muscle groups at least twice per week. Although this survey did not measure the exact time spent exercising, the results showed that 71.3% of men and only 53.3% of women participated in sports/PA at least once a week, indicating that approximately half of the women were not participating in sports/PA weekly.

Comparing these findings with similar surveys conducted in other countries, a 2023 survey in Japan[20] reported that 52.3% of people (54.4% of men and 50.2% of women) participated in sports/PA at least once a week, showing that Tanzania's overall participation rate is higher. In a 2023 Australian survey[21], 78.7% of people reported participating in sports/PA at least once a week. These results suggest that Tanzania's sports/PA participation rate is average compared to other countries. However, the Australian survey also showed a smaller gender difference: 60.8% of men and 61.5% of women reported participating in sports/PA at least three times a week. In contrast, Tanzania's gender disparity in participation is much larger, indicating that addressing gender differences is a significant issue.

19 WHO. (2024). Physical activity. https://www.who.int/news-room/fact-sheets/detail/physical-activity (Accessed: 01/09/2024).

20 Japan Sports Agency. (2023). Summary of the 2022 "Public Opinion Survey on the State of Sports Implementation" (in Japanese). https://www.mext.go.jp/sports/b_menu/houdou/jsa_00133.html (Accessed: 01/09/2024).

21 AusPlay. (2023). National Sport and Physical Activity Participation Report October 2023. https://www.clearinghouseforsport.gov.au/research/ausplay/results (Accessed: 01/09/2024).

Regarding the reasons women participate in sports/PA, the survey found that "social reasons" were significantly higher for women than men. As for barriers to participation, women reported higher values for "because I'm busy with housework," "because I'm busy with childcare," "because there is no one to exercise with," and "because I hate exercise." Furthermore, women were more likely to participate in sports/PA at home or with family members. These barriers—such as housework and childcare—are commonly observed in various countries, and the response of "belonging to school clubs" likely reflects younger women still in school. However, the overall data suggest that women who do participate in sports/PA tend to do so in a familiar environment with family or their social community. Conversely, women who do not participate are more likely to feel isolated or express a general dislike for sports/PA. In the PA and health awareness survey discussed in Chapter 5, women reported significantly lower satisfaction with their participation in PA compared to men, although the effect size was not particularly large. Given these findings, it is essential to consider targeted measures to promote women's participation in sports/PA.

6.2 Age Related Situation and Issues

Next, we consider the issues related to age groups. The survey results indicated that participation rates in sports/PA decline with age. Examining similar surveys in other countries, a 2023 UK survey[22] indicated that the percentage of people who responded "I participate in sports or PA at least twice a month" was 82% for ages 16-24, 77% for 25-34, 76% for 35-44, 77% for 45-54, 74% for 55-64, 83% for 65-74, and 73% for 75-84. Additionally, in a 2023 Australian survey[23], the percentage of people who responded "I participate in sports or PA at least once a year" was 89.9% for ages 18-24, 89.7% for 25-34, 90.3% for 35-44, 90.4% for 45-54, 88.2% for 55-64, and 85.2% for 65 and older. Furthermore, in a 2023 survey in Japan[24], the percentage of people who responded "I participate in sports or PA at least once a week" was 49.2% for ages 20-29, 44.7% for 30-39, 45.9% for 40-49, 47.8% for 50-59, 56.5% for 60-69, and 68.8% for 70-79.

While these figures vary depending on the country and frequency of participation, it is evident that one of the key challenges in Tanzania is the low participation rate among the elderly. Previous research highlights the importance of PA in maintaining health and improving functional abilities in older adults[25,26]. Participation in sports/PA has also been shown to enhance subjective well-being among the elderly[27]. However, factors such as physical limitations, environmental constraints, societal stereotypes, and lack of motivation can impact participation in this demographic. Understanding these barriers in Tanzania will be crucial to promoting physical, mental, and social health among the elderly.

The survey results revealed that highly competitive sports like football, netball, basketball, volleyball, athletics (including marathon), and swimming were more popular among younger age groups (15-24). In contrast, walking and jogging were more common among older adults. Additionally, older respondents reported participating in sports/PA on roads or at home, either independently or with family. This suggests that the elderly prefer low-impact activities that can be done freely in familiar environments. However, older respondents also cited barriers such as "because I'm old" and "because I'm sick or injured" more frequently, indicating that age and physical condition limit their participation in sports/PA. As Chapter 5 revealed, older respondents also reported lower scores for health status and physical strength, underscoring the need to promote physical and mental health through sports/PA in this age group.

22 Sport England. (2023). The Active Lives Survey. https://activelives.sportengland.org/ (Accessed: 01/09/2024).

23 AusPlay. (2023). National Sport and Physical Activity Participation Report October 2023. https://www.clearinghouseforsport.gov.au/research/ausplay/results (Accessed: 01/09/2024).

24 Japan Sports Agency. (2023). Summary of the 2022 "Public Opinion Survey on the State of Sports Implementation" (in Japanese). https://www.mext.go.jp/sports/b_menu/houdou/jsa_00133.html (Accessed: 01/09/2024).

25 Moreno-Agostino, D., Daskalopoulou, C., Wu, Y., Koukounari, A., Haro, J. M., Tyrovolas, S., Panagiotakos, D. B., Prince, M., & Prina, A. M. (2020). The impact of physical activity on healthy ageing trajectories: evidence from eight cohort studies. International Journal of Behavioral Nutrition and Physical Activity, 17, 92.

26 Meredith, S. J., Cox, N. J., Ibrahim, K., Higson, J., McNiff, J., Mitchell, S., Rutherford, M., Wijayendran, A., Shenkin, S. D., Kilgour, A. H. M., & Lim, S. E. R. (2023). Factors that influence older adults' participation in physical activity: a systematic review of qualitative studies. Age and Ageing, 52(8), 1-15.

27 Stathi, A., Fox, K. R., & McKenna, J. (2002). Physical activity and dimensions of subjective well-being in older adults. Journal of Aging and Physical Activity, 10(1), 76-92.

For younger respondents, the notable barrier was “because there is no coach or instructor,” which was significantly higher for those aged 15-24. This suggests that younger people may be interested in participating in sports/PA but lack the necessary support. Given that the younger age group also reported higher participation in school facilities and with local friends or school clubs, there is an opportunity to promote grassroots sports/PA by establishing teams and training instructors at schools, rooted in local communities.

6.3 Religious Related Situation and Issues

This report also examined differences by religion, primarily between Christians and Muslims. While some significant differences were observed in obstacles, locations, and groups, no item showed a large effect size, indicating that there were no major disparities based solely on religion.

However, in relation to regional differences mentioned later, it was evident that Zanzibar had a much lower participation rate in sports/PA than other regions. Although this report did not conduct a multilevel analysis, a closer examination of the survey results through the lenses of culture, religion, region, and gender may reveal clearer issues and approaches.

6.4 Area Related Situation and Issues

This section provides insights into comparing participation in sport/PA according to areas and the differences between municipal and district councils. In Tanzania, significant regional variations exist in health, living conditions, and family structures[28]. Therefore, it is reasonable to expect regional differences in sports/PA participation.

The statistical analysis revealed some regional characteristics, but many of the findings were too specific to generalize. Regional leaders should assess these findings in the context of their own areas. One clear trend was the significantly lower participation rate in sports/PA in Zanzibar, likely due to historical, cultural, and climatic factors. The analysis showed that fewer people in Zanzibar are engaged in activities like jogging or marathon running, or participating in sports/PA in their free time. This indicates a need to promote individual-level exercise in this region.

Although there was no overall difference in participation rates between municipal and district councils, several key differences emerged. For example, basketball and swimming were significantly more popular in municipal councils, likely due to the availability of facilities. Promotion factors such as “for social reasons” and “to be outdoors and enjoy nature” were more common in district councils, reflecting the stronger community ties and closer relationship with nature in rural areas. Urban respondents, on the other hand, were more likely to report obstacles such as “because I’m busy with work” and “because there are more important things than exercise,” reflecting the fast-paced nature of life in municipal areas. However, rural areas were more likely to cite “because there is no place or facility” and “because there is no coach or instructor” as barriers, indicating a lack of resources in those regions. Municipal councils had significantly lower scores for using “school facilities” and “vacant spaces,” while reporting higher use of “private commercial facilities (e.g., fitness clubs, gyms),” suggesting better access to private sports/PA resources. Finally, municipal residents were more likely to participate in sports/PA “independently,” while district residents were more likely to belong to local or school clubs, indicating a stronger team-based sports/PA culture in rural areas. Given these findings, targeted approaches will be required to promote sports/PA in urban and rural areas.

28 DHS. (2022). Tanzania Demographic and Health Survey and Malaria Indicator Survey 2022: Key Indicators. https://dhsprogram.com/pubs/pdf/PR144/PPR144.pdf (Accessed: 01/09/2024).

6.5 Educational Attainment Related Situation and Issues

The survey also revealed differences based on educational attainment. Specifically, the percentage of people who had not graduated from school or had only graduated from primary school and selected "not participating" was significantly higher than those with other educational attainments. Additionally, when examining inhibiting factors, the response "because I'm busy with work" was significantly higher for the graduated O-level and bachelor, master, or doctor groups, and significantly lower for the not graduated school group, suggesting that people with higher educational attainments are more likely to be busy. Regarding the groups who participate in sports/PA together, the proportion of those with a bachelor, master, or doctor attainment was significantly higher for the categories "with colleagues at work" and "belong to workplace clubs." Furthermore, for the inhibiting factor "because I'm old," the percentage of respondents who had not graduated from school was significantly higher, suggesting that many people in this group feel they do not need to exercise or believe they are unable to exercise as they get older. Moreover, the results in Chapter 4 reveal that people who have not finished school tend to view themselves as less healthy and have less favorable attitudes towards PA compared to those who have completed school.

While the results do not explicitly show a correlation between higher educational background and higher participation rates in sports/PA, they do suggest a certain tendency in that direction. Although this survey alone does not clarify the causal relationship between educational attainment and sports/PA, it is generally known that participation in sports/PA improves concentration, memory, and classroom behavior, contributing, albeit slightly, to improved academic performance, particularly in mathematics and reading comprehension[29,30]. It may be related to also a lack of educational experiences at school contributes to lower participation rates in sports/PA.

This may be largely due to the limited emphasis placed on promoting sports and physical education (PE) in Tanzanian schools, which means the ripple effects of PE are minimal. People who have positive exercise experiences in school PE are more likely to develop good exercise habits later in life[31]. They are also more likely to acquire knowledge related to health. From this perspective, the promotion of sports and school PE may become an important long-term issue for the future of sports/PA participation.

6.6 Disability and Health Related Situation and Issues

The relationship between disability, illness, and sports/PA participation was discussed in Chapter 4. Regarding disability, the National Bureau of Statistics Tanzania[32] defines disability in the *Tanzania Population and Housing Census 2022* as a loss or limitation of opportunities to take part in normal life in their community on an equal level with others due to physical, mental, or social factors. This broad definition focuses on activity limitations rather than just physical impairment, which aligns with Tanzania's inclusive understanding of disability. In this survey, only 62 people (2.65%) out of 2,340 respondents identified as having a disability, making it difficult to conduct in-depth comparisons. According to the World Bank Group[33], approximately 15% of the global population has some form of disability, so this survey likely underrepresents the population with disabilities in Tanzania. However, it is also said that only about 3% of people with disabilities in Tanzania are involved in business. Given the survey's methodology, the reported ratio of people with disabilities could be considered representative.

Looking at the results in Chapter 4, people with disabilities reported significantly lower scores than those without disabilities across all five questions: (1) Do you consider yourself healthy? (2) Do you think your

29 Haverkamp, B. F., Wiersma, R., Vertessen, K., van Ewijk, H., Oosterlaan, J., & Hartman, E. (2020). Effects of physical activity interventions on cognitive outcomes and academic performance in adolescents and young adults: A metaanalysis. Journal of Sports Sciences, 38(23), 2637-2660.

30 Trudeau, F., & Shephard, R. J. (2008). Physical education, school physical activity, school sports and academic performance. International Journal of Behavioral Nutrition and Physical Activity, 5(10).

31 Allender, S., Cowburn, G., & Foster, C. (2006). Understanding participation in sport and physical activity among children and adults: A review of qualitative studies. Health Education Research: Theory & Practice, 21(6), 826-835.

32 National Bureau of Statistics Tanzania. (n.d) Statistics for Development: https://www.nbs.go.tz/ (Accessed: 01/09/2024).

33 World Bank Group. (2023). Disability inclusion. https://www.worldbank.org/en/topic/disability (Accessed: 01/09/2024).

physical strength is strong? (3) Do you think you participate in enough PA? (4) Are you satisfied with your current level of PA participation? (5) Do you like PA? For questions (1) and (2), which relate to health and physical strength, it is possible that the responses from people with disabilities were underestimated due to the broad and subjective nature of the terms "health" and "physical." However, for the items related to satisfaction with participation, frequency, and interest in PA, people with disabilities should be able to enjoy the same opportunities as those without disabilities. Previous studies have shown that the life satisfaction gained by people with disabilities through participation in sports/PA is nearly twice that of those without disabilities. This could be because the challenges and constraints faced by people with disabilities in accessing sports/PA amplify the benefits they derive from participation[34]. In Tanzania, where social security systems and policies for people with disabilities are said to be weak, these results highlight the need for further policy measures to promote sports/PA for people with disabilities.

As for the relationship between illness in the past 12 months and participation in sports/PA, those who had been ill in the past year reported significantly lower scores on four out of five items, with the exception of (5) "Do you like PA?" Similar to the interpretation of responses from people with disabilities, it is likely that those who had been ill in the past year experienced limited opportunities to engage in PA, which resulted in lower satisfaction with their participation. Although their interest in exercise was similar to that of people without illness, their actual participation and satisfaction were lower, likely due to health-related limitations. Promoting regular exercise is crucial for maintaining and improving both mental and physical health, and more efforts should be made to encourage PA as a preventive measure to reduce the risk of future illness.

34 Pagan, R. (2018). Disability, life satisfaction and participation in sports. In L. R. de la Vega, & W. N. Toscano (Eds.), Handbook of Leisure, Physical Activity, Sports, Recreation and Quality of Life (pp.343-364). Springer.

6.7 Recommendation

Based on the above findings, this section will focus on key points and recommend future policies to be implemented in Tanzania to increase the participation rate in sports and PA among the nation's citizens. These are described below from four perspectives: (1) closing the gender gap, (2) targeting both young people and the elderly, (3) developing school sports and PE, and (4) promoting sports/PA for people with disabilities.

6.7.1 Closing the Gender Gap

As mentioned above, there is a clear difference in sports/PA participation rates between men and women in Tanzania. These gender-related issues are complex, arising from historical, cultural, religious, economic, and physical factors, and we believe they are difficult to resolve easily. However, Article 1 of the *International Charter of Physical Education, Physical Activity, and Sport*, established by the United Nations Educational, Scientific and Cultural Organization (UNESCO)[35] in 1978 and revised in 2015, states that "the practice of PE, PA, and sport is a fundamental right for all." Therefore, if there are factors that prevent people from participating in sports or PA despite their desire to do so, it will be necessary to address these issues. Additionally, considering that the WHO[36] has set standards for sports/PA participation as being effective in promoting health and preventing chronic diseases such as heart disease, diabetes, and certain types of cancer, we must consider how to encourage women who are reluctant to participate in sports/PA to engage in these activities.

Based on the results of this survey, to promote women's sports/PA, it will be necessary to implement measures and policies that allow sports/PA to be practiced in women's communities and groups. This is because the reason given by women who are familiar with sports/PA for promoting participation is for social reasons, and the barrier preventing participation is the lack of companions for sports/PA. In Tanzania, there are many self-help groups aimed at increasing women's income and promoting employment, but there are few communities focused on sports/PA. In addition to promoting highly competitive sports, incorporating activities like walking into daily community routines would be a beneficial approach. Furthermore, as noted in Chapter 5, "interaction between people" was one of the values for which women gave higher scores than men, suggesting its importance for women. Additionally, women gave higher scores for "promotion of health and physical strength" and "relaxation, healing, and exhilaration." Among the types of events women desired, "events on the theme of growing health, such as nursing care prevention" were more common. These findings suggest that health-promotion policies could play a key role in encouraging women to participate in sports/PA. On the other hand, being busy with housework and childcare was also cited as a barrier. While this is a common issue worldwide and some degree of accommodation is necessary, from the perspective of gender equality, sharing these responsibilities with men is desirable. Introducing child day care centers and improving pre-primary education services is also another strategy to lessen the burden of women to stay home to nurse the children and provide opportunity to engage in various activities outside home including participation in sport/PA

As a concrete measure, various associations related to women's sports/PA could join forces to build a more efficient organization to promote women's sports/PA at all levels. Sustainability would increase if such an organization could collaborate with sponsoring companies that support women's advancement and provide grassroots-level training or financial support to communities where sports/PA are practiced.

35 UNESCO. (2015). International charter of physical education, physical activity and sport. https://www.unesco.org/en/sport-and-anti-doping/international-charter-sport (Accessed: 01/09/2024).

36 WHO. (2024). Physical activity. https://www.who.int/news-room/fact-sheets/detail/physical-activity (Accessed: 01/09/2024).

The significant finding that women enjoy sports/PA less than men is also a matter of concern. This lower level of enjoyment is likely associated with school PE experiences and school sports participation in general. Currently, the majority of schools in Tanzania do not provide sportswear for students; instead, this responsibility is typically borne by parents. Consequently, some students have appropriate sportswear, while the majority participate in sports and PE activities in their uniforms. For girls, whose uniforms typically consist of long skirts that extend below the knees, this attire becomes an obstacle during sports and PE participation. Therefore, the survey finding of lower exercise enjoyment among girls may be attributed to these school PE experiences and could hinder them from developing healthy exercise habits after graduation. Addressing this issue is essential for promoting gender-equitable exercise habits.

6.7.2 Targeting Both Young People and the Elderly

First, a concern from the survey results is that the lack of trained sport leaders and instructors is an obstacle to young people's participation in sports/PA. This restricts children's opportunities to participate in sports/PA and clearly has a significant impact on future international competitiveness. As a measure to address this, it may be important to take advantage of school resources. Although currently there are not many public sports/PA facilities in Tanzania, there are many schools in each region with spaces to exercise and there are at least a few open spaces in the community where children can exercise. While there may be a lack of facilities for modern sports, to promote sports/PA, it would be beneficial to start with traditional sports, running, and jogging, which do not require much facilities and equipment. Grassroots sports/PA promotion will be revitalized by creating sports/PA teams based at each school and training instructors rooted in the community. If support for children's sports/PA teams are strengthened, it will lead to long-term international competitiveness. The development of school PE is also related to this. Since the demand for PE teachers is closely tied to the demand for sports/PA instructors, further development will be necessary in terms of PE teacher training as well.

A system where supports are provided to school-based youth sports/PA teams would also be desirable. This would not need to be tied to various sports/PA associations, but could be organized under an association such as the Youth Sports Club Association, with subsidies allocated based on the number of registered members, regardless of the type of sport/PA. This is because, when collecting subsidies, the amount often varies depending on the sport/PA, as seen with football, where significant amounts of funding are often allocated. This can hinder the promotion of less popular sports/PA. Additionally, this survey suggested that the problem is more serious in rural areas, making it necessary to focus these efforts there as soon as possible. If it is difficult to raise funds centrally, it would be fine for regions or districts to create funds themselves. To that end, promoting sports tourism is typical option. Tanzania is currently at a stage where the wealthy are willing to pay to participate in sports/PA. For example, the Kilimanjaro Marathon is a good example of encouraging people to participate in sports/PA while revitalizing the economy of the Kilimanjaro area. It would also be important for each region or district to generate revenue through such initiatives and have a system in place to channel that revenue into youth sports/PA. Establishing such a system early is desirable, so that sports/PA options are not limited and talent is not overlooked depending on where a person was born or lives.

The low participation rate of sports/PA among the elderly was also highlighted as an issue. In recent years, Tanzania has seen many initiatives to promote jogging and walking by closing off public roads, as well as promoting jogging clubs and running events. However, when we look at elderly people with low participation rates in sports/PA, we see that they exercise "at home or on the premises of the home" just as much as they do on the "roads," and they do so not only alone but also with their families. This indicates that people who need support to participate in exercise are hesitant to even leave their homes to exercise. For this group, it may be better to provide exercise routines that can be done at home, rather than encouraging them to go outside. It is hoped that not only government agencies, but also exercise instructors, TV stations, and radio stations will work together to create and disseminate such programs.

Additionally, getting professional sports teams involved would also be effective. For example, if a famous local professional sports team holds an exercise class or similar activity as part of its community contribution efforts, bringing together residents and athletes, local people are likely to actively participate. If such opportunities bring professional sports teams closer to them and they start attending sports/PA events, this alone could revitalize their daily activities. It would be beneficial for government agencies to provide advice and support to professional sports teams in this regard.

6.7.3 Developing School Sports and Physical Education

Looking at the results of this survey, the differences in educational attainment highlight the importance of developing school PE. However, since the development of school PE is also an issue in previous sections like “closing the gender gap” and “targeting both young people and the elderly,” it can be inferred that this issue is closely related to various challenges concerning sports/PA in Tanzania. While a minimum level of facilities and equipment is crucial for the development of school PE, it is not realistic to provide these resources to all schools in Tanzania overnight. So, what process should be used to develop sustainable school PE?

First, it is necessary to address the institutional problems surrounding school PE. Under a school-based selection system, schools that view PE classes as a distraction from national exams may not introduce them. In addition, students can choose the subject even in the schools have PE, this student-based selection system discourages students who dislike sports/PA. Institutional reform is needed so that all schools will implement PE classes, even if class time is limited. PE classes should be conducted both outdoors, and in classrooms. The importance of PA and basic knowledge of sports is vital for actively participating in sports/PA in the future, but there is an overwhelming need for hands-on experience in enjoying exercise, which forms the foundation of sports/PA. Few people will use specific knowledge such as court dimensions or referee movements later in life. Along with system reform, it will be necessary to revise the curriculum. In fact, a new curriculum will be implemented starting in 2024, and the shift from content-based education to competency-based education is something to look forward to in the development of school PE. However, teacher training institutions like universities and colleges will also need to adapt effectively to these changes. Teacher training must be developed with a focus on the kind of PE teachers that are needed, and this will involve the strengthening teaching practice experiences.

Moreover, it will be essential to train high-quality teachers. In extreme cases, school PE can still be delivered effectively if there are teachers who can conduct excellent PE classes under any conditions, even if there is limited equipment, the play grounds are small, the number large number of students, or the students are not wearing appropriate sportswear. PE classes can be effective even with just activities like running, which do not require equipment. High-quality PE lessons must include many elements, such as inclusion and physical literacy, and bringing about this transformation will require impactful changes not only in teacher training courses but also in training for in-service teachers. While instruction manuals that can be used by teachers and aspiring teachers are important, considering the history of school PE in Tanzania, it may be more appropriate to create instruction manuals that include detailed lesson plans. Furthermore, understanding and acknowledgement of the value of PE from teachers of other subjects, including administrators, is necessary, so that school-wide training may be successful.

Promoting school PE not only increases future participation in sports/PA but also positively affects learning in other school subjects. In addition, by ensuring that all citizens learn through school PE, they will also acquire skills such as discipline, teamwork, leadership, cooperation, and respect for others—skills that easily gained through sports/PA. These benefits are directly linked to Tanzania’s national interests.

6.7.4 Promoting Sports and Physical Activity for People with Disabilities

The results of this survey alone cannot fully explain the extent to which people with disabilities are able to participate in sports/PA. However, the average score of the people with disabilities who participated in this survey was clearly low, and this is thought to represent the actual state of participation in sports/PA by people with disabilities in Tanzania.

First, infrastructure improvements are required to create an environment in which people with disabilities can participate in sports/PA safely and comfortably. If sports/PA facilities and public spaces are made barrier-free, people with disabilities will be able to participate more easily. Special equipment and facilities required for wheelchair sports and Paralympic competitions are also important. The basic requirement for promoting the spread of sports/PA for people with disabilities is that such sports/PA equipment must be easily available and facilities must be accessible. To achieve this, sufficient financial support is necessary. Financial support from the government and private sector is essential, and sustained support is required for sports/PA organizations and programs targeting people with disability. It is also important to strengthen policies to support sports/PA for people with disabilities. In particular, if the government takes the lead in establishing a legal system that increases opportunities for participation in sports/PA events and programs, it will be possible to support the development of sports/PA for people with disabilities. These infrastructure developments are often thought to benefit only people with disabilities, but in reality, because people without disabilities can also participate in para-sports. Thus, it is essentially an initiative that benefits “everyone.”

At the same time, education and awareness-raising must be promoted to deepen understanding of sports/PA for people with disabilities and to increase the number of participants. Increasing opportunities for people with and without disabilities to enjoy sports/PA together in schools and local communities will promote mutual understanding and cooperation. People without disabilities may be able to deepen their understanding by experiencing sports/PA for people with disabilities. It is also important to develop coaches and instructors who have specialized knowledge and skills in sports/PA for people with disabilities. Increasing the number of instructors who have received specialized training will enable people with disabilities to participate in sports/PA with appropriate guidance. It is also necessary to consider including part of this education and training of instructors in the school PE system mentioned above. Such education and awareness-raising can also promote support from families and the local community. It is necessary to create an environment in which people with disabilities can participate in sports/PA with peace of mind, and with the understanding and cooperation of their families and the community. Another important element is the development of volunteers to support sports/PA for people with disabilities. Implementing training programs for volunteers will ensure they can actively participate and provide appropriate support to people with disabilities.

It is also necessary to increase media exposure in order to raise awareness of para-sports. Through reporting on success stories of the above measures and major tournaments, the appeal and value of para-sports can be widely communicated to society. Sharing success stories of athletes with disabilities can also give people with disabilities hope and confidence to participate in sports/PA. This will likely make it easier for people with disabilities to actively engage in sports/PA.

7. Limitation and Conclusion

The challenges and limitations of this study are as follows:

First of all, the sample size. In Tanzania, due to the current state of internet penetration, especially in rural areas, it was judged that an online survey would be difficult, so an assistant was sent to each region to conduct interviews. As a result, a sample size of only 2,340 people was obtained, which limited the ability to generalize the findings, and some aspects focused on in the analysis were difficult to interpret on a larger scale. However, in Japan, individual interviews by researchers were used until 2015, with a sample size of about 3,000 people. After that, it was changed to an online questionnaire survey, and surveys of more than 40,000 people are conducted every year. In the future, it would be ideal to shift to an online survey in Tanzania as well, depending on the increasing penetration rate of the internet.

In terms of the survey items, we should have looked at the respondent's place of residence, not only by region or district but also by the nearby roads. Identifying the roads would have allowed us to better assess the prosperity of the area, proximity to sports/PA facilities and schools, detailed population information, and more, enabling a more nuanced analysis. Additionally, it may have been beneficial to investigate the relationship with diet. By examining the relationship between daily diet and exercise, along with physical condition, we could have explored whether physical health outcomes were a result of exercise, diet, or both. It would also have been valuable to ask about the respondent's experience with school PE. These limited the findings of the survey to some extent.

As a conclusion, this nationwide survey offers foundational insights into the patterns, preferences, and obstacles associated with sports/PA participation across diverse demographic segments in Tanzania. The findings underscore critical areas for targeted intervention and policy enhancement. Key findings reveal notable disparities in sports/PA engagement influenced by gender, age, educational background, and disability. To address gender-specific barriers, such as limited time due to household responsibilities and fewer social opportunities for women, policies should support community-based sports/PA programs that align with social and health-promoting themes, which women value highly. The study also highlights the importance of educational initiatives to promote mutual understanding and inclusivity within school settings and the broader community. Integrating sports/PA education, particularly in teacher training programs, will be essential to impart physical literacy, teamwork, and leadership skills that contribute to broader social and economic development goals in Tanzania. Additionally, media coverage and community events could serve to increase public awareness for sports/PA and inspire people to participate it, promoting a culture of inclusivity.

Although there are some limitations, this survey provides basic data that can greatly contribute to the promotion of sports/PA in Tanzania. As mentioned earlier, sports/PA encompass many positive social and educational elements, but in modern society, sports/PA are also considered a major industry. The sports/PA industry spans many fields, including professional and amateur, equipment, event management, broadcasting rights, advertising, sponsorship, and tourism, generating significant economic effects worldwide. In addition, sports/PA equipment and fitness-related products and services continue to grow, as interest in sports/PA increases with rising health consciousness. In this way, sports/PA are not just a means of entertainment and health maintenance but are part of an industry with international influence, contributing to the global economy. It is hoped that this basic data will be utilized to enhance Tanzania's national strength overall.

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