
Changes in Leisure Activities Under Crisis Conditions

Submitted 25/07/23, 1st revision 18/08/23, 2nd revision 11/09/23, accepted 30/09/23

Agnieszka Sawińska¹

Abstract:

Purpose: The aim of this paper is to identify changes in the recreational behaviour of the inhabitants of Polish municipalities bordering Germany, with particular emphasis on the impact of crisis situations on this behaviour. It was assumed that the Covid pandemic and the restrictions caused by it have affected most aspects of the lives of the inhabitants of the border municipalities, including their leisure-time behaviour and the leisure-time recreational activities undertaken. An additional objective was to investigate which physical activities are most popular and whether they differ between the inhabitants of the different provinces.

Design/Methodology/Approach: The empirical part was based on a survey conducted using the CATI method in 2021. The survey was conducted on a representative group of 1,068 inhabitants of border communes of three voivodeships: West Pomeranian, Lubusz and Lower Silesian, with a target-quota selection of respondents taking into account characteristics such as age, gender and place of residence. The theoretical part of the article is based on a review of the literature on recreational activities.

Findings: Activities defined as physical recreation have not changed significantly compared to the period before the Covid pandemic. Passive recreational activities, on the other hand, have increased, which should be considered a worrying phenomenon. As the study showed, the most popular physical activities undertaken by the inhabitants of the border municipalities are those carried out in public space, close to their place of residence. Walking, cycling, running and gardening are the activities most frequently chosen. However, walking was indicated as a fairly regular activity by almost 56% of respondents, gardening by 21%, cycling by less than 33% and running by only 14%. The proportion of other activities was much lower. Considering the positive impact of physical activity on health and cognitive functions of a person, it is necessary to carry out activities supporting the improvement of physical activity of the inhabitants of border municipalities.

Practical Implications: The identification of the most preferred forms of active recreation, mainly undertaken outdoors, in the immediate living space can contribute to the development of recreational infrastructure and multi-group friendly recreational space by local authorities and other social policy actors. These activities can contribute to promoting behaviour that has a positive impact on the health and quality of life of residents, counteracting destructive behaviour or bridging the gap between different territorial units.

Originality/Value: Previous research related to recreational activity is mostly very general and mainly concerned with its gender differentiation. Looking at the impact of crisis-like changes (Panademia Covid) on the differentiation of recreational activities provides a new perspective on the problem.

¹Ph.D., University of Szczecin, Institute of Spatial Management and Socio-Economic Geography, agnieszka.sawinska@usz.edu.pl;

Keywords: *Physical recreation, border municipalities, regional development, border municipalities.*

JEL codes: *I30, R23, J220.*

Paper type: *Research article.*

Acknowledgment: *The project is financed within the framework of the program of the Minister of Science and Higher Education under the name "Regional Excellence Initiative" in the years 2019 - 2022; project number 001/RID/2018/19; the amount of financing PLN 10,684,000.00.*

1. Introduction

Leisure time activities are an important part of modern life. It can take various forms, both with a positive impact on human well-being (e.g., physical activity outdoors, reading books) and with a negative/negative impact (watching TV for too long or playing on the computer). The determinants of these activities are many.

They may depend, among other things, on the individual's characteristics (age, gender, education, personality, interests), leisure time resources, but also on so-called external factors, such as natural and recreational assets or existing infrastructure near the place of residence. In addition to these determinants of recreational activity, atypical situations should also be taken into account.

The aim of this article is to present the results of a study on recreational activities undertaken by the inhabitants of Polish municipalities bordering Germany. These municipalities are part of three provinces: Zachodniopomorskie, Lubuskie and Dolnośląskie. This article is based on a survey conducted using the CATI method on a representative group of 1068 respondents. The research was conducted in 2021 and is part of a larger research project on the recreational activities of the residents of border municipalities.

This article assumes that one of the important factors that may have influenced the recreational behaviour of the inhabitants of the Polish border municipalities was the emergency situation, which included Pandemic Covid. Consequently, research questions were posed such as:

1. What recreational activities do Polish border residents engage in?
2. How have recreational (physical) activities changed over time (before the pandemic, during the so-called "lockdowns" and after)?
3. Did the activities differ between the provinces?

The layout of the article includes an introduction, which outlines the motivation for the topic, assumptions, aim and research questions. The next section provides the

background to the considerations with a review of the literature and references to previous research linked to recreational activity and the Covid pandemic. The methodology and results of the study are then presented. The article concludes with conclusions and discussion arising from the research and literature studies carried out.

2. Recreational Activities - Theoretical Background

Recreation in the literature is treated inseparably from leisure time. It is most often understood as "all activities undertaken voluntarily for the regeneration of physical and mental strength, and manifested in participation in cultural entertainment, games and sports activities, carried out during leisure time from school, work or home activities" (Kowalczyk, 2000).

Recreation is most often divided into passive and active recreation. Passive recreation is behaviour that does not require intentional or conscious action. This may include indulging in stimuli such as listening to music. Active recreation, on the other hand, is goal-oriented behaviour characterised by a specific psychophysical effort, such as playing chess or board games, or involving physical exertion: running, swimming, Nordic walking, etc. Still another division divides recreation into: physical recreation, creative recreation, cultural-entertainment recreation or recreation through social activities (Orfin, 2011).

The classification of leisure activities changes over time. Among the activities included in the category of "pure" leisure time are: watching TV, sports, general leisure outside the home and socialising - without volunteering, as it implies working under a third-person criterion (Sevilla *et al.*, 2012).

Leisure activities may take not only different forms, but also involve making choices related to their place, time, form, frequency or companionship. These behaviours can refer both to activities undertaken at the place of residence, understood literally as "home", in the immediate neighbourhood, in the neighbourhood, i.e., in a person's everyday environment (without the need for an overnight stay), or outside the place of residence when it involves tourism. These activities are undertaken by people with specific psycho-physical characteristics operating in specific socio-economic, political, geographical and other conditions.

For the purposes of this discussion, the conventional understanding of recreational space proposed by (Meyer and Niezgodna, 2018) is adopted as one in which recreational activity is carried out. The nature of the space makes it possible to distinguish between open space (activity undertaken in the open air) and closed space (activity undertaken in enclosed facilities); additionally, within them, spaces can be distinguished in which forms of activity of a specific type are undertaken (e.g., swimming, dancing, walking). In addition, these spaces can be formal (types of

organised activity that can be free or paid for) and informal (forms of activity undertaken in a free and individualised way).

3. Data and Methods

The article is based on a statistical analysis of a survey conducted in 2021 on a representative group of inhabitants of Polish municipalities bordering the Federal Republic of Germany. The research was conducted using the CATI method, based on a survey questionnaire consisting of closed questions with a Likert design. The sample size was 1068 respondents, and the structure of respondents by place of residence was as follows: Lower Silesian Voivodeship 224 persons, Lubuskie Voivodeship 226 persons, West Pomeranian Voivodeship 578 persons. In the selection of respondents, a random and stratified selection was maintained, corresponding to the general population structure of municipalities.

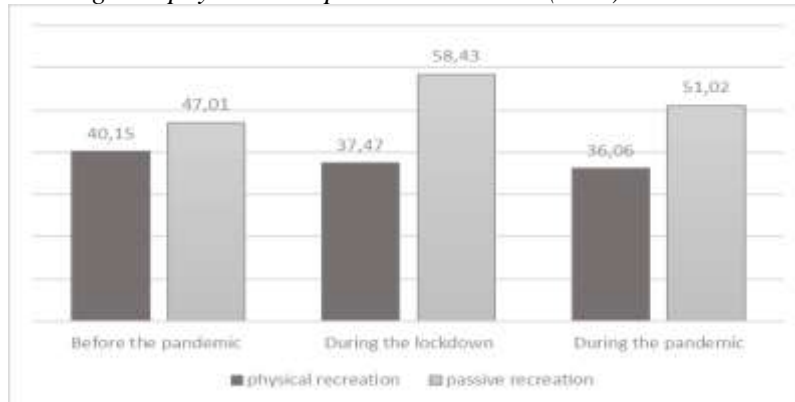
Analysis of variation in the frequency of practising forms of physical activity for the study periods (before the pandemic, during the lockdown, during the pandemic) was carried out using basic statistical measures such as mean, median and dominant. For the purpose of statistical calculations, qualitative data were assigned ranks (response "never"-rank 1; response "occasionally" - rank 2; answer "several times a month" - rank 3; answer "several times a week"- rank 4; response "every day" - rank 5).

The research was carried out within the framework of a research project carried out by the Department of Spatial Economy and Tourism entitled: "Changes in the functioning of border areas during the Covid-19 pandemic, with particular reference to cross-border relations, leisure time use and tourism and recreational activities of the population".

4. Results

The identification of the most frequently chosen recreational activities by the inhabitants of Polish border municipalities was preceded by a general question concerning the uptake of active (physical) and passive activities in conventionally adopted periods, i.e., before the pandemic (until 15 March 2020), during the lockdown (15 March to 31 May 2020), during the pandemic (after 31 May 2020 to 2021). These changes are shown in Figure 1.

As can be seen from Figure 1, activities undertaken in physical recreation showed that activity declined during the period of strict restrictions, and this decline continued during the time immediately after lockdown. Worryingly, the proportion of passive activities increased during the restrictive period, which despite improving after the time of restrictions, did not return to pre-pandemic levels. The most common active recreational activities indicated by respondents were walking (55.7%), cycling (32.4%), working in the allotment/garden (21.4%), running (14.4%), and exercising in leisure and sports facilities (10.5%).

Figure 1. Changes in physical and passive recreation (total)

Source: Own elaboration.

Statistical analysis of changes for individual physical activities showed that for the activity "walking" the dominance of the option to walk "every day" (dominant 5) was characteristic. There were slight fluctuations in the mean value (4.5 - 4.23 - 4.44) indicating a slight reduction in the frequency of walking during lockdown to a frequency level of "several times a week" and less.

At the same time, still at least half of the respondents who indicated this form of activity as one of their three preferred activities, regardless of the period studied (60.4% before the pandemic, 52.5% during lockdown, 57.7% during the pandemic), declared walking every day (Table 1).

Table 1. Changes in the activity "walking"

	Before the pandemic	During the lockdown	During the pandemic
Important	596	596	596
Data gaps*	472	472	472
Mean	4.50	4.23	4.44
Median	5.00	5.00	5.00
Dominant	5	5	5
Sum	2684	2522	2649

Note: * Data gaps are due to the fact that respondents could choose from 13 different physical activities

Source: Survey research.

In turn, cycling is the second most popular form of physical activity among respondents, after walking. It was indicated by almost every third person surveyed (32.4%). For the lockdown period the respondents declared a slight decrease in cycling, which was reflected in the average values (decrease from 4.09 to 3.76), which is directly connected with the appearance among the answers of the variants "never" (6.4% of indications) and "occasionally" (8.1% of indications).

At the same time more than half of the respondents in each of the analysed periods cycled at least several times a week (median =4), which is also confirmed by the dominance of this response option (dominant 4=a few times a week). Table 2.

Table 2. *Changes in the activity "cycling"*

	Before the pandemic	During the lockdown	During the pandemic
Important	346	346	346
Data gaps*	722	722	722
Mean	4.09	3.76	4.01
Median	4.00	4.00	4.00
Dominant	4	4	4
Sum	1416	1300	1386

Note: *Data gaps are due to the fact that respondents could choose from 13 different physical activities

Source: Survey research.

Working in the garden (or on a plot) was the most stable form of physical activity over time. This relatively popular activity among respondents (share 21.6% in the sample; 3rd in the ranking of respondents' preferences) shows essentially no change caused by the restrictions during the lockdown period and during the ongoing pandemic. The vast majority of respondents described the frequency of practising this hobby as at least several times a week (dominant 4; median at the same level, with a decrease in mean frequency of only 0.17), which is also evidenced by the sum of the shares of the responses "several times a week" and "daily" amounting to 74% for the pre-pandemic period, 66.6% for the lockdown period, and 75.3% during the pandemic (Table 3).

Table 3. *Changes to the activity "garden/plot work"*

	Before the pandemic	During the lockdown	During the pandemic
Important	231	231	231
Data gaps*	837	837	837
Mean	3.91	3.74	3.91
Median	4.00	4.00	4.00
Dominant	4	4	4
Sum	903	860	903

Note: *Data gaps are due to the fact that respondents could choose from 13 different physical activities

Source: Survey research.

Running was the fourth most important form of physical activity for respondents, indicated by 14.1% of respondents (Table 4). The dominant frequency among the indications of this form was "several times a week" (dominant 4), at the same time, at least 50% of respondents indicated this frequency of running or "every day" in

their indications (median = 4). Overall, the decrease in the frequency of this form of activity during the lockdown period relative to the pre-pandemic period was small (-0.45 from the median value), and during the pandemic period it almost returned to its initial level (-0.14 from the median value).

Table 4. Changes in activity "running"

	Before the pandemic	During the lockdown	During the pandemic
Important	151	151	151
Data gaps*	917	917	917
Mean	4.03	3.58	3.89
Median	4.00	4.00	4,00
Dominant	4	4	4
Sum	609	541	591

Note: *Data gaps are due to the fact that respondents could choose from 13 different physical activities

Source: Survey research.

It is worth noting that the most frequently chosen forms of physical activity were those undertaken outdoors. Only fifth in the ranking of activities was activity undertaken in sports and recreational facilities. As is well known, these facilities were either temporarily out of use or their use was heavily restricted by anti-covid restrictions.

During the lockdown period, there was a decrease of nearly 40% on average. In the pre-pandemic period and during the pandemic, the predominant use of the clubs was generally several times a week (dominant 4=sometimes a week), while in lockdown respondents generally did not visit them at all (dominant 1=Never). As many as 58.9% of respondents then used leisure and sports facilities at most occasionally.

Table 5. Changes in activities carried out in sports and leisure facilities

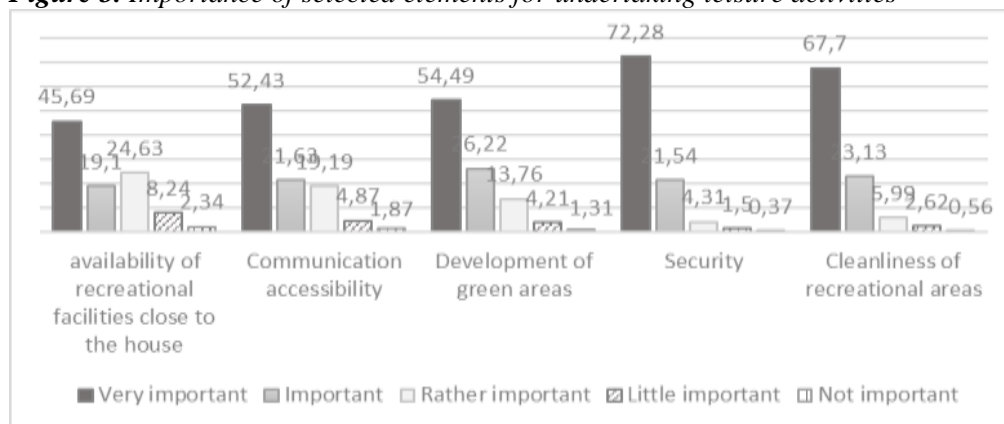
	Before the pandemic	During the lockdown	During the pandemic
Important	112	112	112
Data gaps*	956	956	956
Mean	3,85	2,34	3,59
Median	4,00	2,00	4,00
Dominant	4	1	4
Sum	431	262	402

Note: *Data gaps are due to the fact that respondents could choose from 13 different physical activities

Source: Survey research.

Respondents were also asked how important factors such as accessibility to recreational places close to home, transport accessibility, development of green spaces, safety and cleanliness of recreational places are for them to undertake recreational activities. As can be seen from Figure 3, all of these factors are important, but safety and cleanliness of recreational places are the most important.

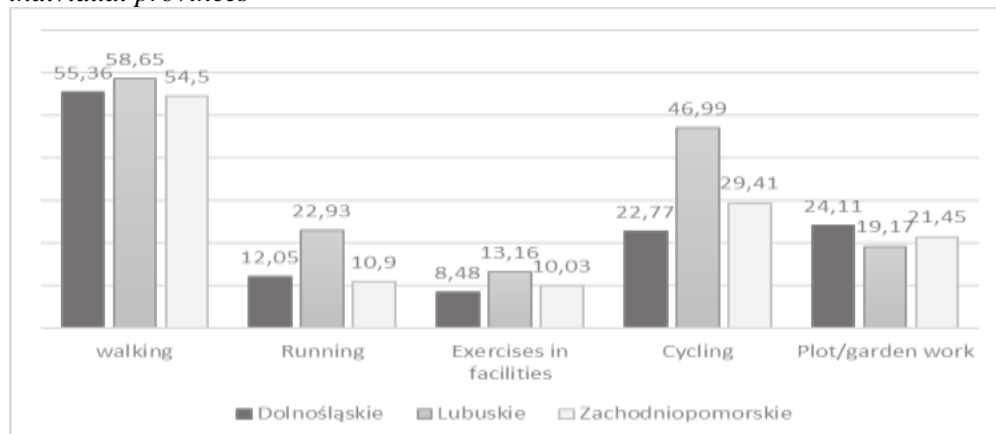
Figure 3. Importance of selected elements for undertaking leisure activities



Source: Own elaboration.

In order to check whether the physical activities undertaken differed between the inhabitants of the individual border municipalities, the results of the questionnaires were further analysed. It was noted that while walking is the most popular activity in all three municipalities, cycling, exercising in the facilities and running are more often indicated by inhabitants of Lubuskie than by inhabitants of Zachodniopomorskie and Dolnośląskie (Figure 4).

Figure 4. Selected physical recreation activities in the structure of municipalities of individual provinces



Source: Own elaboration.

5. Discussion and Summary

The positive impact of physical activity on human health, well-being, welfare and cognitive processes is highlighted in the literature (Dong *et al.*, 2019; Ettema and Schwanen, 2012; Rodriguez *et al.*, 2007; Zins and Ponocny, 2022). According to the study, physical recreation under the influence of the introduced restrictions and in relation to changes in daily functioning during pandemic Covid changed little.

The changes in recreational behaviour were undoubtedly related to the temporary closure of recreational facilities, but also resulted from the reduced possession of leisure time due to the transfer of many work responsibilities to the home or the need to care for children and other family members (Sawinska, 2023).

When considering physical activity, outdoor activities were most commonly preferred. Daily outdoor activity was also studied by Wu and co-authors using behavioural mapping. As their research shows, physical activity is dependent on the environment in which a person lives (Wu *et al.*, 2022). This research also confirms that neighbourhood support, safety, landscape and amenities are important in addition to time, gender and age, which is consistent with the findings of their study.

Neighbourhood characteristics as an important determinant of recreational activity are also pointed out by Chen and co-authors. They point out that neighbourhood characteristics influence participation in recreational walking, cycling or spending time outdoors (Chen *et al.*, 2022). The results of the study presented in this paper, also showed that factors such as accessibility to recreational places close to home, transport accessibility, landscaping, safety and cleanliness of recreational places are important for the physical activities undertaken by respondents.

According to physical activity data, the proportion of adults (between 35% and 50%) reporting physical activity is insufficient to obtain health benefits and remains an important public health issue (Cerin *et al.*, 2010). One has to wonder whether the results obtained in the present study regarding the indication of physical activity as a form of leisure activity are positive.

Rather, they prove a low level of recreational activity among the inhabitants of border municipalities and should be an important premise for interventions carried out in this area. The orientation of regional development towards recreation and its importance for the socio-economic development of spatial units is also emphasised by other authors (Meeke *et al.*, 2020).

The limitations of the research conducted are that it is cross-sectional in nature and deals with changes that have occurred in chosen recreational activities over a specific period of time. Undergoing multivariate analysis and identifying individual and environmental factors that would contribute to demonstrating differences in specific groups and spatial units provides a rationale for further research in this area.

It would be useful to identify barriers to accessing recreational public space (e.g., walking, recreational parks, cycle paths) for different audiences. As Cerin and coauthors (Cerin *et al.*, 2010) point out, in order to increase participation in physical activity, comprehensive, activities targeting activity-related attitudes and skills as well as the creation of activity-friendly social and physical environments are needed.

In summary, lack of regular physical activity is an important public health challenge. Understanding the determinants of physical activity, supporting habitual patterns of physical activity, and identifying barriers and constraints to engaging in such activity are important for improving the quality of life of the population and reducing socio-economic inequalities in healthy lifestyles.

References:

- Bogacka, E., Fuhrmann, M. 2021. Przepływy mieszkańców poznańa związane z aktywnością fizyczną. *Studia Miejskie*, 36, 71-82.
<https://doi.org/10.25167/sm.1468>.
- Cerin, E., Leslie, E., Sugiyama, T., Owen, N. 2010. Perceived Barriers to Leisure-Time Physical Activity in Adults: An Ecological Perspective. *Journal of Physical Activity and Health*, 7(4), 451-459. <https://doi.org/10.1123/jpah.7.4.451>.
- Chen, X., Kemperman, A., Timmermans, H. 2022. Socio-demographics, neighborhood characteristics, time use, and leisure-time physical activity engagement patterns over the life course. *SSM - Population Health*, 19, 101244.
<https://doi.org/10.1016/J.SSMPH.2022.101244>.
- Dong, H., Zhang, J., Cirillo, C. 2019. Exploring, understanding, and modeling the reciprocal relation between leisure and subjective well-being. *Transportation Research Part A: Policy and Practice*, 130, 813-824.
<https://doi.org/10.1016/J.TRA.2019.10.009>.
- Ettrema, D., Schwanen, T. 2012. A relational approach to analysing leisure travel. *Journal of Transport Geography*, 24, 173-181.
<https://doi.org/10.1016/J.JTRANGE.2012.01.023>.
- Kowalczyk, A. 2000. *Geografia turystyki*. PWN.
- Meekes, J.F., Buda, D.M., de Roo, G. 2020. Socio-spatial complexity in leisure development. *Annals of Tourism Research*, 80, 102814.
<https://doi.org/10.1016/J.ANNALS.2019.102814>.
- Meyer, B., Niezgoda, A. 2018. Postrzeganie czasu wolnego a kształtowanie przestrzeni rekreacji i przestrzeni turystycznej na obszarze miejskim. *Turyzm*, 28(1), 49-54.
- Orfin, K. 2011. *Ekonomia turystyki i rekreacji*. A. Panasiuk, Ed. PWN.
- Rodríguez, A., Látková, P., Sun, Y.Y. 2007. The relationship between leisure and life satisfaction: application of activity and need theory. *Social Indicators Research*, 86(1), 163-175. <https://doi.org/10.1007/s11205-007-9101-y>.
- Sawińska, A. 2023. Differentiation of Leisure Time Budget of Residents of Border Municipalities in Poland. *European Research Studies Journal*, 26(2), 617-627.
- Sevilla, A., Gimenez-Nadal, J.I., Gershuny, J. 2012. Leisure Inequality in the United States: 1965-2003. *Demography*, 49(3), 939-964.
<https://doi.org/10.1007/s13524-012-0100-5>.
- Wu, S., Wu, W., Xia, X., Zhou, J. 2022. Characteristics of Physical Activities and Environmental Factor Preferences of Older Adults in Rural Resettlement

Community in Ningbo, China. *Journal of Environmental and Public Health*, 2022, 1-17. <https://doi.org/10.1155/2022/5414384>.

Zins, A.H., Ponocny, I. 2022. On the importance of leisure travel for psychosocial wellbeing. *Annals of Tourism Research*, 93, 103378. <https://doi.org/10.1016/J.ANNALS.2022.103378>.