Recreational pursuits of Wheelchair users: Overcoming time-space limitations

GDH Wilson, L Kok & PS Hattingh

Summary

Wheelchair users are individuals with unique and specific needs in terms of recreation. In general, people overcome obstacles by making choices, thus establishing a certain pattern of activi-ties. For wheelchair users this is not so easy: they cannot always overcome time-space limitations imposed upon them by a hos-tile environment which prevents them from making appropriate choices. **Keywords:** wheelchair users, time-space limitations.

DEELNAME AAN REKREASIE-AKTIWITEITE DEUR RYSTOELGEBRUIKERS: HOE OM DIE RUIMTE-TYD-BEPERKINGS TE BOWE TE KOM

Opsomming

Rystoelgebruikers is individue, elk met 'n eie unieke behoefte in terme van ontspanning. Oor die algemeen oorkom mense struikelblokke deur middel van besluitneming, dit wil sê, om buitemuurse aktiwiteite te beplan en deur te voer. Vir die rystoel-gebruiker is die saak nie so eenvoudig nie. 'n Onvriendelike omgewing maak dit vir hulle uiters moeilik om sulke besluite te kan neem. Die beskikbaarheid van vervoer, vrye toegang tot sportfasiliteite en mobiliteit binne sulke sentrums, is voorvereistes vir deelname aan rekreasie-aktiwiteite. **Sleutelwoorde:** Rystoelgebruikers, ruimte-tyd-beperkings.

All from the Department of Geography at the University of Pretoria

Dr GDH Wilson, M A (University of Potchefstroom) D Phil (UP) MSS (UOFS) Ms L Kok, M A (UP) Prof PS Hattingh, MA (Witwatersrand) D Phil et Litt (UNISA)

There is general recognition of the benefits that participation in recreation holds for disabled persons (Shivers & Holis, 1975; Vermeer, 1987; Schleien & Ray, 1988). What Stein (1986: 49) calls their 'right to recreation', is however, often impaired by the limitations imposed by environmental factors (Van Zijderveld, 1987). When certain obstacles in the environment limit the space that they can utilize, limitations are imposed upon their time as well, since they need time to overcome these obstacles. Con-sequently the time-space environments that disabled per-sons can use become so restricted that they have very lit-tle time in which to participate in recreational activities outside their homes. They often have to spend their free time in isolation.

For the purposes of this paper, the term *disability* is used as defined by Goldenson et al. (1978): any chronic physiological or mental inability caused by injury, illness or innate defect. For the term recreation the definition of Neumeyer (1949: 22) is still valid, although it was formulated nearly five decades ago:

"An activity pursued during leisure, either individual or collective, that is free and pleasurable, having its own immediate appeal, not impelled by any immediate necessity."

In this paper the term recreation is used synonymous with '*leisure*', where '*leisure*' refers to surplus time or to a state of mind, in other words, the free use of free time. All sport activities are included in the term recreation.

The availability of transport, free access to places of recreation and mobility within the spaces are prerequisites to facilitate the participation in recreation of wheelchair users (Laus, 1977, quoted by Schleien & Ray, 1988: 10). Any restriction of the independent movement of a wheelchair user minimizes their community participation. This paper is based on research done during the period 1990 to 1993 on the recreation patterns of wheelchair users in Greater Pretoria, an area that includes Pretoria, Akasia, Atteridgeville, Centurion, Eersterust, Laudium, Mamelodi and Soshanguve – hereafter referred to as Pretoria.

Answers to two questions were sought:

- 1. To what extent are wheelchair users limited in their use of time and space during their recreation?
- 2. What are the restrictions that impede the participation of wheelchair users in recreational activities?

The following data gathering techniques were used in order to identify, from a time-space perspective the role played by time and space in the recreation patterns of wheelchair users:

- 1) structured questionnaires, completed by 170 wheelchair users in Pretoria;
- 2) structured interviews, conducted with 37 owners or managers of recreation facilities in Pretoria;
- in addition, 42 of the respondents (from 1 and 2) were interviewed to elucidate and explain some of the findings; and
- finally, one of the authors undertook both an excursion in a wheelchair through the streets of Pretoria and to various recreation facilities to experience in person what wheelchair users have to face.

Wheelchair users are individuals with unique and specific needs in terms of recreation. In general, people overcome obstacles by making choices, thus establishing a certain pattern of activities. For wheelchair users this is not so easy: they cannot always overcome time-space limitations imposed upon them by a hostile environment which prevents them from making appropriate choices.

The study employed Hägerstrand's principles of timegeography which emphasize the existence of limitations that can influence personal choice. His principles formed the basis of an activity pattern with relation to recreation as embodied Fairhurst's (1992) model (*Figure 1*).

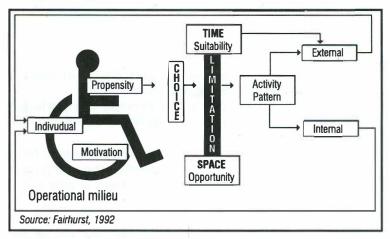
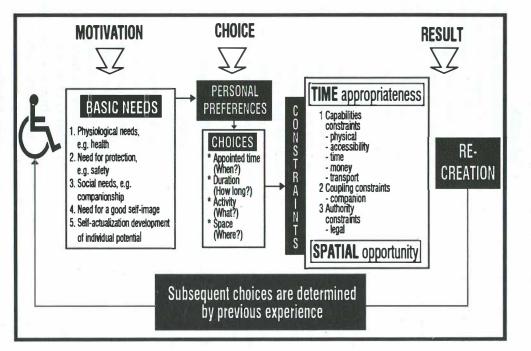


Figure 1: LIMITATIONS OF TIME AND SPACE

Hägerstrand (Parkes & Thrift, 1980) identified three types of limitations, namely, (1) efficiency (within the limits of the individual's capabilities); (2) coupling (where and for as long as social interaction is needed); and (3) authoritative limitations (through regulations). Action within a specific space is possible only if time is suitable and space offers an opportunity for action.

Time-geography

The concept of time-geography aims to develop a model of community where limitations on behaviour (activities) can be formulated in physical terms, that is in terms of location in space and in time (Parkes & Thrift, 1980). These writers emphasize the role played by time, space, choices and limitations in an understanding of human behaviour and thus provides a valuable framework within which wheelchair users' recreation in available time and space can be studied. The approach is used to evaluate the physical boundaries of time and space as they conflict with the intended recreation activities of wheelchair users. The choices made by such users in terms of recreation are dictated, far more than is usually the case, by these limitations. For instance, they might decide to spend their leisure time at home not because they particularly want to, Source: Kok, 1994



1997 Acta Structilia Vol 4 No 1

Figure 2: RECREATION OF WHEELCHAIR USERS

but because they have so few options to go anywhere else.

Personal preferences of wheelchair users

Figure 1 contains the components motivation and choice, culminating in an activity pattern. Chapin (1974) maintains that human action consists of three components: motivation, choice and results. All were introduced into Fairhurst's model, and from it was developed another model (Figure 2) that illustrates how choices that a wheelchair user makes in relation to recreation come about and how the outcome of these choices is determined.

Human action is motivated by basic needs, their participation in recreational activities is motivated by the extent to which these needs are met. Personal preferences also play a role, but is often of less importance as the choices of wheelchair users are influenced by what they can do rather than by what they want to do. Limited recreation activities are often not the result of the wheelchair user's disability, but is caused by the failure of the time-space environment to provide for free movements of wheelchair users.

Constraints of participation experienced by wheelchair users

Participation in recreation activities do not follow the mere availability of recreation facilities as a matter of course. In this regard Mercer (1980: 34) remarked: "Even if the facility for engaging in a special activity exists, individuals may still not participate either because they do not know if the opportunity is there or because they do not have the transport, are physical-handicapped, are too poor or are prevented through other reasons." Mercer (1980) stressed the importance from a planning point of view to know what people do not do and why people do not take part in certain activities. Important constraints of the participation by wheelchair users in recreation activities were identified from the following questions:

- reasons why wheelchair users do not frequent certain recreation facilities;
- (2) reasons why wheelchair users do not go on holiday;
- (3) reasons why they do not take part in sport; and

(4) reasons why they do not attend sport events as spectators.

These reasons constitute a number of constraints, which we will now discuss.

General accessibility

Ingram (1971: 101) defines accessibility as "... the inherent characteristic (or advantage) of a place with respect to overcoming some form of spatially operating source of friction (for example time and/or distance)". Accessibility has two major components: the mobility of an individual or the individual's capability to move about, and the characteristics of the available facility. Breheny (1978) sees the urban area as a pool of unequally distributed resources or opportunities whereto people have various dearees of access. To identify the constraints on wheelchair users in their pursuit of recreation outside the home environment, accessibility is evaluated in terms of constraints that influence choices according to the time-geography approach by Hägerstrand (Parkes & Thrift, 1980). These constraints are the limitations of capability, coupling and authorities (Fig. 2).

Limitations of capability

Several factors affect the capability of wheelchair users to participate in recreation activities: time, physical accessi-bility, finances and transport (Fig. 2).

Time

According to Tuan (1974: 216) people are "... more constrained by time than by the curbs that space may impose". To establish the extent of the constraint of time, respondents were questioned about the time they have available for recreation.

Although wheelchair users are just as busy as other people, it seems as if, in general, they do have sufficient free time for recreation. A lack of time as reason why they do not take part in recreation was cited by only 11,5% of respondents; only 4,5% of those who do not go on holiday; and by 19% for not taking part in sport.

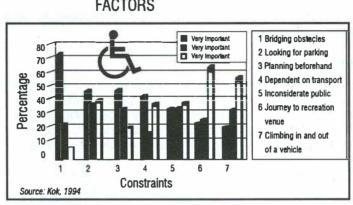


Figure 3: RESTRICTIONS IMPOSED BY CERTAIN FACTORS

Although they have sufficient free time for recreation, the utilization of this free time for recreation can be severely restricted by several factors (Fig. 3). The figure shows that most of their free time is taken up by attempts to overcome obstacles in the way of their recreation participation, or by finding a convenient parking place at the recreation facility.

Their dependence on others necessitates careful planning to co-ordinate the recreation activities of wheelchair users with the available time of their helpers. It is significant that time is not a restrictive factor where wheelchair users can help themselves, but only when they do have to depend on others.

Physical accessibility

Recreation space can only provide an opportunity for recreation participation if it is accessible to wheelchair users. Even one step, says Kennedy et al. (1987: 68) can deprive wheelchair users of their independent access to a facility. *Table 1* lists the obstacles experienced by respondents at recreation facilities: the four major obstacles all have to do with accessibility, with stairs being the single most hampering factor in the recreational pursuits of a wheelchair user.

TABLE 1:

Obstaalaa	Percentage ($n = 156$)			
Obstacles	Very Important	Important	Unimportant 8,4	
Stairs	84,4	7,1		
Lack of Lifts	70,8	11,7	17,5	
Turnstiles	55,2	29,2	15,6	
Narrow doors / passages	55,2	29,2	15,6	
Cramped rooms	50,6	28,6	20,8	
Uneven surfaces	49,4	30,5	20,1	
Inaccessible auto banks	48,7	26,6	24,7	
High counters	42,2	33,1	24,7	
Inacccessible phone booths	39,0	22,0	39,0	
Inconsiderate public	27,3	24,7	48,0	

OBSTACLES EXPERIENCED BY WHEELCHAIR USERS AT RECREATION FACILITIES

Finances

The financial means of wheelchair users varies as for other people. Yet they can often do less with their discretional income available for leisure than other people, because they have to pay more for facilities with adequate access, for instance for more expensive holiday accommodation in hotels or flats rather than cheaper camping holidays.

Transport

In modern urban society transport is of utmost importance for any person who wishes to lead an independent life. For the wheelchair user this is even more so. Cohen (quoted in The Star, 1991: 9) calls mobility "... the key to independence for the disabled".

Unfortunately, public transport systems are seldom accessible to wheelchair users. Buses, trains and even aeroplanes are designed with the non-disabled user in mind. Because of this, lack of suitable transport is given as a major reason why wheelchair users do not go on holiday (52,3%), do not participate in sport (21%) or do not attend sport events as spectators (23,2%).

The following specific transport related problems were experienced by the respondents: a lack of parking place (48,7 %); transport only certain times available (22,5%); high costs (20,5%); wheelchair doesn't fit in (16%); have to book well in advance (11,5%); irregular hours (10,9%); not close to their homes (10,9%); a long time to wait or travel (9,6%). Only 27% indicated that they do not experience transport problems.

In Table 2 the various problems are summarized in relation to the different modes of transport.

TABLE 2:

	Percentage ($n = 156$)						
	Own transport	Assisted by others	Taxi	Minibus for the handicapped	Public transport	Other	
Parking	100,0	0	0	0	0	0	
None	54,8	35,7	4,8	4,8	0	0	
Expensive	35,5	48,4	9,7	0	0	6,5	
Extended waiting / Traveling time	6,7	33,3	46,8	6,7	6,7	0	
Booking in advance	5,6	77,8	0	11,1	0	0	
Wheelchair doesn't fit	4,0	62,0	32,0	12,0	0	0	
Limited availability	0	74,3	14,3	11,4	0	0	
Infrequent	0	64,7	29,4	5,9	0	0	
Not close	0	47,0	52,9	0	0	0	

PROBLEMS WITH TRANSPORT EXPERIENCED BY WHEELCHAIR USERS

Coupling limitations

Factors in the environment often prevent wheelchair users from participating at the same level as others in recreation activities, unless they are assisted by somebody. Their opportunities for recreation is thus determined by the period and time that they can be coupled to someone else. Whenever they wish to visit a recreation facility, they need a companion to help with transport and help to overcome obstacles that restrict access. These coupling limitations cause 45,5% of the respondents who do not go on holiday to give the lack of a companion as main reason, and 28% give the same reason why they do not attend sport events.

Next we will pay attention to the time-space environments that would facilitate the participation of wheelchair users in recreation activities outside the home. Respondents were asked if they would participate more in recreation if

- (1) the recreation environment was more convenient;
- (2) better transport was available; and
- (3) a companion was available.

The question was not structured and the responses were spontaneous. The answers are summarised in Table 3.

TABLE 3:

MOTIVATING CIRCUMSTANCES FOR WHEELCHAIR USERS FOR PARTICIPATING IN RECREATION OUTSIDE THE HOME ENVIRONMENT

SPECIFIC	Percentage (n =156)		
CIRCUMSTANCES	Yes	No	
More convenient recreation environment	74,7	25,3	
Companion more frequently available	58,4	41,6	
Better transport available	44,8	55,2	

To create the circumstances favourable to recreation participation by wheelchair users, the help of authorities is needed. The ignorance about the needs of wheelchair users of some authorities, and their failure to fulfil these needs create restrictions (Kennedy et al., 1987) that constitute limitations in terms of authority.

Public sector constraints

The biggest breakthrough for wheelchair users in South Africa came in April 1986 when The National Building Regulations for the first time made provision for the accessibility of buildings. Ramps, accessible toilet facilities, slip-free surfaces, convenient parking areas, etcetera, were for the first time prescribed (Joubert, 1990). These requirements should also be taken into account when older buildings are refurbished. Yet wheelchair users find that these regulations are not always adhered to and that both the public sector and the private sector are not always informed about the needs of wheelchair users. A remark made by Krauss (1983: 286) could also refer to the fate of wheelchair users in Pretoria:

"It is clearly evident ... that great numbers of disabled persons are not receiving the benefits of our nation's recreation resources. The severity of their disabilities, architect barriers, nonacceptance by society and slowness of the recreation profession to adjust its programs and facilities to their needs all have contributed to a serious lack of opportunity."

Conclusion

This study highlights the plight of wheelchair users in relation to their recreation needs. For too long they had been stuck away in their homes, mostly because time-space constraints prevented them from emerging and mixing in the recreation environment of the rest of society. It is only in the last few years that authorities and the public became increasingly aware of their specific needs, and that attempts have been made to meet these needs. Everyone who has the freedom of movement should accept responsibility to create an accessible recreation environment for wheelchair users, because, in the words of Kessler (1953: 251), "... most of us are ordinary people seek-ing extraordinary destinies. The physical disabled are ex-traordinary in that they seek but an ordinary destiny".

References

- BREHENY, M.J. 1978. The measurement of spatial opportunity in strategic planning. *Regional Studies*, 12, pp. 463-479.
- CHAPIN, F.S. 1974. *Human Activity Patterns in City*. NewYork: John Wiley.
- FAIRHURST, U.J. 1992. A Time-Space Perspective on the Daily Lives of Economically Active Single Mothers: South African Urban Study. Unpublished D.Phil thesis. Pretoria: University of Pretoria.
- GOLDENSON, R.M. DUNHAM, J.R. & DUNHAM, C.S. 1978. *Disability and Rehabilitation Handbook*. NewYork: McGrawHill.
- INGRAM, D.R. 1971. The concept of accessibility: a search for an operational form. *Regional Studies*, 5, pp. 101-107.
- JOUBERT, I. 1990. Die aanpassing van gestremde persone in die gemeenskap. *Welsynsfokus*, 25(1), pp. 19-25.
- KENNEDY, D.W., AUSTIN, D.R. & SMITH, R.W. 1987. Special Recreation Opportunities for People with Disabilities. New York: CBS College Publishing.
- KESSLER, H.H.1953. *Rehabilitation of the Physically Handicapped*. New York: University Press.
- KRAUSS, R. 1983. Therapeutic Recreation Service. Principles and Practices. New York: CBS College Publishing.
- LOCKER, D. 1983. Disability and Disadvantages. Londen: Tavistock.
- MERCER, D. 1980. In Pursuit of Leisure. Malvem: Sorreti.
- NAGLER, M.1990. *Perspectives on Disability*. California: Health Markets Research.21
- NEUMEYER, M.H. 1949. *Leisure and Recreation*. New York: A.S. Barne and Comp.

ODENDAL, F.F., SCHOONEES, P.C.; SWANEPOEL, C.J.; DU TOIT, S.J.; BOOY-SEN, C.M. 1988. *HAT. Verklarende Handwoordeboek van die Afrikaanse Taal.* Johannesburg: Perskor.

Parkes, P. & Thrift, N. 1980. *Time, Space and Places*. Chichester: John Wiley & Sons.

- SCHLEIEN, S.J. & RAY, M.T. 1988. Community Recreation and Persons with Disabilities: Strategies for Integration. Baltimore: Paul. Brookes.
- SHIVERS, J.S. & HOLIS, F.F.1975. *Therapeutic and Adapted Recreational Services*. Philadelphia: Lea & Febiger.
- STEIN, J.U. 1986. Including disabled participants. *Parks & recreation*, 21(1), pp. 49-52.
- The Star.1991. Let disabled have their chance in the real world. 26 Augustus. Johannesburg.
- TUAN, Y. 1974. Space and place: humanistic perspective. *Progress in Geography*, 6, pp. 211-247.
- VAN ZIJDERVELD, B.1987. Sport and normalization. In: Vermeer, A. (Red.), *Sports for the Disabled*, pp. 25-30. Haarlem: De Vriese-borch.
- VERMEER, A. (Red.).1987. Sports for the Disabled. Haarlem: DeVrieseborch.