

Influence of context in social participation of people with disabilities in Brazil

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ABSTRACT

Objective. To identify environmental and personal factors associated with social participation in adults with various diseases/health conditions residing in the urban areas of the Belo Horizonte Metropolitan Region, Minas Gerais, Brazil.

Methods. Individual characteristics, social participation, and perception of environmental barriers of 226 patients treated at a public rehabilitation referral service were evaluated. Regression analyses with hierarchical entry of data were performed to verify the association of personal and environmental factors with social participation.

Results. More years of schooling, being engaged in the labor market, and consuming alcohol are conditions that increase the social participation of patients. Natural environment, transportation, access to health services, and social capital are perceived as the most important barriers to participation. Based on the linear regression analysis, the adjusted coefficient (R^2_{adj}) of the full model was 0.42 ($P = 0.000$).

Conclusions. The results of this study may contribute to the planning and implementation of interventions and public policies at the individual and contextual level that are considered appropriate for reducing barriers and facilitate full participation.

Key words

Social participation; environment; disabled persons; Brazil.

Social participation is central to the quality of life and well-being, and is considered a prerequisite for the construction and maintenance of resources relevant to health, such as self-esteem, self-efficacy, and even support and social capital (1).

Many diseases and health conditions can affect social participation, limiting daily activities and important social interactions occurring in relationships, work, and leisure (1). Studies have shown that people with disabilities can experience more restrictions on their social participation than would be expected for their disease/condition, revealing the influence of factors beyond the health/condition itself on this process (2–4). This suggests that analysis of social participation should broaden its focus, incorporating the socioeconomic and cultural context in which people live. The impact of different factors on the lives of people with disabilities, such as those related to the physical and social environment, has been the subject of

various studies that have shown that environmental barriers have a negative impact on functioning, especially as it pertains to social participation (5, 6). Thus, environmental factors are considered to be of great importance in limitations on activities of daily living and restrictions on social participation, and in secondary pathologies.

The World Health Organization (WHO) International Classification of Functioning, Disability and Health (ICF) (7) considers “participation” one of the three components of functioning, together with the components “body functions and structure” and “activity.” According to WHO, social participation is the individual’s involvement in life situations, taking into account their life

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experience and the context in which activities are performed (7).

Participating means, then, taking part—being included or integrated in an area of life, and being accepted or having access to the resources needed for this inclusion. The ICF model depicts participation as influenced by personal characteristics and environmental factors—internal attributes and conditions external to the individual—and involving the maintenance of personal autonomy; the possibility of mobility in different environments; social relationships; education; leisure; spirituality; and life in the community (7).

While WHO recognizes the importance of personal and environmental factors on functioning, and although restrictions on participation are common in the presence of acute and chronic diseases/conditions, there are still few studies that analyze the impact of these factors on social participation in a comprehensive way. The limited availability of information and evidence about the relationship between contextual factors and social participation can be justified by the fact that discussions on these interrelationships are relatively recent (3).

Traditionally, the instruments used to assess the influence of environment on participation have adopted a narrow view of the concept of “environment,” focusing on the limitations imposed by architectural barriers and the physical environment (8, 9) without addressing the different elements comprised by this concept, such as social support and access to services. Moreover, the literature has focused on the study of social participation restrictions for those with chronic diseases/conditions, with very few investigations analyzing involvement in social situations by individuals with acute conditions.

Considering the relevance of the relation between social participation and personal and environmental factors for understanding the health and functioning of individuals and populations, more research on the topic could help optimize social participation among those with acute and chronic diseases and conditions, serving as a reference for appropriate interventions at the individual and contextual level and thereby contributing to the planning and evaluation of public policies.

The objective of this study was to identify environmental and personal fac-

tors associated with social participation in adults with various diseases/health conditions residing in the urban areas of the Belo Horizonte Metropolitan Region (BHMR), Minas Gerais, Brazil.

MATERIALS AND METHODS

An observational, cross-sectional study was conducted with patients who received care at a public rehabilitation referral service in the city of Belo Horizonte in the BHMR of Minas Gerais, Brazil. The BHMR ranks as the third most populous metropolitan region in the country and the third most productive in economic output (10). The BHMR is also an important political, financial, commercial, educational, and cultural center for Brazil; the 62nd largest urban agglomeration in the world; and the seventh largest in Latin America (10).

This study was approved by the ethics committee of the Federal University of Minas Gerais (approval no. 132/09). All study participants signed an informed consent document, and all work was conducted in accordance with the Declaration of Helsinki (1964). A convenience sample was obtained from January to December 2010 and consisted of 226 adult patients of both sexes with various diseases/health conditions, including orthopedic and neurological disorders. All participants 1) were residents of the BHMR, 2) walked with or without an assistance device, and 3) were being treated at the Rehabilitation Reference Center East Unit of Belo Horizonte.

Survey instruments

Questionnaire. The study questionnaire collected socio-demographic, health, and lifestyle information by inquiring about gender, age, marital status, number of children, education, occupation, income, and current work situation. Occupation was converted into “occupational status” calculated according to a socioeconomic index (SEI) that rates the socioeconomic status of the individual by aggregating measures of economic resources and social prestige (11). Current work situation was categorized as “active,” “unemployed,” “retired,” or “on sick leave.” The lifestyle section included questions about regular physical activity (defined as physical exercise lasting at least 30 minutes at least three times per week) (12); smoking (whether or not the respondents were smokers at the time of

the interview, regardless of the regularity or number of cigarettes consumed) (12); and consumption of alcohol (with “regular consumption” defined as more than 14 doses of alcohol per week and/or more than five doses on one occasion) (12).

Craig Hospital Inventory of Environmental Factors. To assess environmental factors, the Craig Hospital Inventory of Environmental Factors (CHIEF) was applied. The CHIEF is a questionnaire developed to quantify the frequency and extent (magnitude) to which environmental barriers perceived by the individual affect his or her functioning. This instrument been translated and validated for the Brazilian population (13); has good psychometric properties; and has been used to assess the impact of the environment on functioning (5, 13–16).

For each reported environmental factor, the CHIEF provides scores for three different measures of the environmental barriers scale: frequency, magnitude, and frequency–magnitude. The higher the value of the three scores, the greater the degree to which each element of the physical, social, and political environment contributes to or is perceived as a barrier to the participation of people with disabilities (15). The CHIEF also provides a framework for scoring five environmental barrier subscales: 1) attitude/support; 2) services/assistance; 3) physical structure; 4) policies; and 5) school/work (5, 15). This study calculated the score for the main “environmental barriers” scale and all five additional subscales.

Participation Scale. The Participation Scale (PS) was also applied in the study. The PS allows for the quantification of restrictions on social participation experienced by people affected by different diseases/health conditions (17). An evaluation of a translated version for Brazil showed good psychometric properties (1, 17). The total value of the PS can range from 0 to 72. The lower the final score, the fewer restrictions the respondent has affecting their participation (1, 17).

Data analysis

A descriptive analysis and tests of normality were performed, and the strength of association between the dependent variable “participation restrictions” and each independent variable was tested. Pearson’s coefficient test was used for continuous variables and the Kruskal-

Wallis test was used for categorical variables.

The independent variables that had associations with $P < 0.20$ were used in multivariate analyses in a linear regression model. The independent variables were incorporated into the model hierarchically in two blocks, with the first comprising variables related to personal factors (Block 1), and the second comprising variables related to environmental factors (Block 2). For each block, the variables were selected using the stepwise backward method; variables with $P < 0.05$ were maintained in the model. All analyses were controlled for gender and age.

Because the variance of the model residuals did not display homoscedasticity, estimation of robust standard errors (SEs) of the coefficients was used as an alternative method. The coefficients of the regression analysis were estimated using the least-squares method, which does not assume residual normality. All analyses were performed using STATA statistical software, version 10 (StataCorp LP, College Station, Texas, USA).

RESULTS

Participants were mostly men (58.0%) between 19 and 59 years old (with a mean age of 42 and a standard deviation (SD) of 12.1 years); 60.2% lived alone. Among all participants, slightly more than half (53.5%) had no more than eight years of formal education; number of children ranged from 0 to 14 (with a median of one child); 135 (59.7%) were out of work; 60 (26.5%) were active in the labor market; 20 (8.8%) were unemployed; and 11 (4.9%) were retired. Only 26.5% (60) had a paid job at the time of the study, and among those annual income ranged from 0 to US\$ 24 000 (with a median income of US\$ 4 800). Using the criteria and coding of the International Classification of Diseases 10th Revision (ICD-10) (18), the distribution of the main clinical diagnoses by relative frequency was as follows: injuries (S00–T98), 40.7%; diseases of the musculoskeletal system and connective tissue (M00–M99), 19.4%; and diseases of the circulatory system (I00–I99), 16.4%. The most prevalent comorbidities were hypertension (10.3%) and type 2 diabetes (3.4%). More than half of the participants (58.4%) had more than one clinical diagnosis, and 133 (58.8%) were in the acute

phase of the disease process. A total of 170 (75.2%) of the participants were sedentary, 38 (16.8%) were smokers, and 82 (36.3%) regularly consumed alcohol. A complete description of participants can be found in Table 1.

For the main “environmental barrier” scale, the mean CHIEF frequency score was 0.52 (SD = 0.37), and the magnitude score ranged from 0 to 1.04, with an average of 0.36 (SD = 0.25). For the five environmental barrier subscales, the results were as follows: “attitude/support” (mean = 0.50, SD = 0.62, range = 0–2.2); “services/assistance” (mean = 0.59, SD = 0.49, range = 0.186); “physical structure” (mean = 0.80, SD = 0.65, range = 0–2.67); “policies” (mean = 0.31, SD = 0.51, range = 0–2.5); and “school/work” (mean = 0.15, SD = 0.53, range = 0–3.33). Physical-structure barriers had the highest average score and were therefore the most frequent day-to-day barrier for the participants in this study. Barriers at school or work were the least frequent type of barrier reported by the participants.

For the “participation restriction” variable, values ranged from 0 to 46, with a mean of 17.34 (SD = 12.64). A total of 95 patients (42%) reported no restrictions on participation; 57 (25.2%) reported mild restrictions; 44 (19.5%) reported moderate restrictions; and 30 (13.3%) reported severe restrictions. No cases of grave restrictions in social participation were reported.

The descriptive results for the overall environmental barrier scale, the five environmental barrier subscales, and the participation restrictions are reported in Table 2.

Correlation analysis

Based on the logistical regression analyses, the personal factors sex, age, health (chronicity of diseases or conditions), education, income, and lifestyle (physical exercise, smoking, and drinking alcohol) and the frequency and magnitude of policy, physical-structure, and attitudes/services barriers had statistically significant associations with restrictions on patients’ social participation. The variables “clinical diagnosis,” “living with a partner,” “number of children,” “socioeconomic status of occupation,” and “barriers in the environment of study/work” had no statistically significant association with social

TABLE 1. Socio-demographic, health, and lifestyle characteristics of patients undergoing rehabilitation ($n = 226$), Rehabilitation Reference Center East Unit, Belo Horizonte, Minas Gerais, Brazil, 2011

Characteristic	Frequency	%
Sex		
Female	95	42
Male	131	58
Marital status		
Married	90	39.8
Single	87	38.5
Separated/divorced	38	26.8
Widowed	11	4.9
Number of children		
0	71	31.4
1	53	23.5
2	38	16.8
3	35	15.5
4	15	6.6
≥ 5	14	6.2
Education (years of study)		
≤ 8	121	53.5
> 8	105	46.5
Situation in the labor market		
Active/working	60	26.5
On sick leave	135	59.7
Unemployed	20	8.8
Retired	11	4.9
Income (US\$ per year)		
≤ 3 497.14	79	35.0
3 497.15–4 800	41	18.1
4 800.01–6 857.14	45	19.9
> 6 857.14	61	27.0
Number of diagnoses		
1	94	41.6
2	61	27.0
3	36	15.9
4–6	35	15.5
Elapsed time since onset of symptoms		
< 6 months (acute disease/condition)	133	58.8
≥ 6 months (chronic disease/condition)	93	41.2
Engages in regular physical activity		
No	170	75.2
Yes	56	24.8
Smokes		
No	188	83.2
Yes	38	16.8
Consumes alcohol		
No	144	63.7
Yes	82	36.3

participation restrictions and were thus excluded.

Multivariate linear regression

Table 3 presents the results of the first multiple linear regression model, which only included the variables for Block 1

TABLE 2. Scores for 1) the Craig Hospital Inventory of Environmental Factors (CHIEF) “environmental barriers” scale plus five environmental barrier subscales (barriers to participation) and 2) the Participation Scale (restrictions on participation) based on self-reported data from rehabilitation patients ($n = 226$), Rehabilitation Reference Center East Unit, Belo Horizonte, Minas Gerais, Brazil, 2011

Scale	Mean/average	Standard deviation	Range/amplitude
Environmental barriers			
Frequency	0.52	0.37	0–1.96
Magnitude	0.36	0.25	0–1.04
Policies	0.31	0.51	0–2.5
Physical structure	0.80	0.65	0–2.67
School/work	0.15	0.53	0–3.33
Attitude/support	0.50	0.62	0–2.2
Services/assistance	0.59	0.49	0–1.86
Participation	17.34	12.64	0–46

TABLE 3. Partial model: results of linear regression analysis of personal characteristics influencing restrictions on social participation in rehabilitation patients ($n = 226$), Rehabilitation Reference Center East Unit, Belo Horizonte, Brazil, 2011^a

Characteristic	Robust β coefficient	Robust SE ^b	t	$P > t $	CI ^c
Sex	0.4668359	1.834582	0.25	0.799	–3.148859
Age	–0.0424773	0.0698349	–0.61	0.544	–0.1801117
Elapsed time since onset of symptoms (in months)	4.988585	1.712931	2.91	0.004	1.612646
Education	–0.6085397	0.2002548	–3.04	0.003	–1.003213
Work	–4.680869	1.667192	–2.81	0.005	–7.966663
Alcohol consumption	–3.540713	1.69852	–2.08	0.038	–6.88825
Constant	24.07088	4.025164	5.98	0.000	16.13787

^a Adjusted coefficient (R^2_{adj}) = 0.15.

^b SE: standard error.

^c CI: 95% confidence interval.

(personal factors). The variables “smoking” ($P = 0.515$), “engages regularly in physical activity” ($P = 0.344$), and “income” ($P = 0.154$) were not associated with restrictions on social participation.

The model yielded an adjusted coefficient (R^2) of 0.15 (with $P = 0.000$), indicating that, in this study, personal factors explained 15% of the variance in social participation. Briefly, this partial model suggests that being in the acute phase of the disease process, having more years of formal schooling, being actively engaged in the labor market, and consuming alcohol are conditions that increase the social participation of patients.

The second multivariate linear regression model retained the variables of the first, partial model but added the variables for Block 2 (environmental factors) and thus shows both personal and environmental factors associated with restrictions on patient social participation (Table 4).

In this model, the variables “chronicity” ($P = 0.935$), overall “magnitude of

environmental barriers” ($P = 0.359$), and “frequency of policy barriers” ($P = 0.060$) were not associated with the dependent variable, and R^2 was equal to 0.42 (with $P = 0.000$), indicating that 42% of the variance in social participation can be explained by personal and environmental factors combined (Table 4). In other words, the inclusion of the environmental factors in the linear regression led to an increase of almost 30% in the explanatory power of the final model compared to the initial, partial model (which consisted only of personal factors).

According to the results of the final model, more years of schooling, participating in the labor market, and consuming alcohol are conditions that increase the social participation of patients. In contrast, the greater the frequency of environmental barriers, especially barriers related to services and assistance, attitudes and support, and physical structure, the greater the increase in restrictions on social participation of patients with various diseases/health conditions.

DISCUSSION

Over the past two decades, perceptions of the social impact of a disease or trauma has evolved from disadvantages attributed solely to the disability to restrictions on social participation, which calls for consideration of environmental factors as additional determinants of the involvement of individuals in social situations. WHO recognizes social participation as a key indicator of health and well-being and thus recommends that health professionals encourage it among their patients (7). Evidence indicates that interactions between people with disabilities and their environment provide a means for evaluating the degree of social participation and measuring the influence of contextual factors (6, 9). This study investigated the influence of individual attributes and the role of the physical and social environment on the participation of people with disabilities living in a large urban center.

In general, urban centers have the greatest obstacles and challenges to improving access and reducing inequalities in the provision of public services. In the case of Brazil, large cities and metropolitan areas present a variety and complexity of issues, manifested by the combination of high levels of exclusion and/or difficulties in accessing services; health problems; intense migration flows; a disjointed and poorly distributed health care network; and violence; among others (19).

The results of this study revealed that 1) most subjects experienced mild to severe restrictions on their social participation; 2) individual attributes such as higher education, the consumption of alcohol, and being actively engaged in the labor market positively influenced social participation; and 3) more years of schooling can provide individuals with the means for better access to information, health services, infrastructure, and social support, and more positive choices of behaviors and attitudes toward life.

A qualitative perspective of the social participation of the same study sample used in the current research, presented in another publication (20), identified a complex relationship between life with family and friends and social consumption of alcohol, conducted mainly during meetings and festive occasions. The use of alcohol is a behavior adopted by most

TABLE 4. Full model: results of linear regression analysis of personal and environmental and characteristics influencing restrictions on social participation in rehabilitation patients (n = 226), Referral Center in Rehabilitation East, Belo Horizonte, Brazil, 2011^{a,b}

Characteristic	Robust β coefficient	Robust SE ^c	t	P > t	CI ^d
Block 1					
Sex	1.860501	1.623788	1.15	0.253	-1.340602
Age	-0.0029797	0.0663912	-0.04	0.964	-0.1338619
Education	-0.7152611	0.1891936	-3.78	0.000	-1.088233
Work	-4.632711	1.667314	-2.78	0.006	-7.919619
Alcohol	-4.361884	1.422043	-3.07	0.002	-7.16527
Block 2					
Frequency of environmental barriers					
Quartile 1				0.045	
Quartile 2	0.1706375	2.67321	0.06		-5.099275
Quartile 3	-6.754279	3.699401	-1.83		-14.0472
Quartile 4	-4.056154	4.267478	-0.95		-12.46897
Services/assistance					
Quartile 1				0.000	
Quartile 2	9.098874	2.365947	3.85		4.434695
Quartile 3	2.093406	2.367566	0.88		-2.573965
Quartile 4	10.24022	2.810594	3.64		4.699474
Attitude/support	4.290343	1.610823	2.66	0.008	1.1148
Physical structure					
Quartile 1				0.000	
Quartile 2	5.881387	2.320168	2.53		1.307455
Quartile 3	12.7451	2.936655	4.34		6.955838
Quartile 4	13.05324	3.329093	3.92		6.490336
Constant	12.65409	3.925826	3.22	0.001	4.914796

^a Analysis of "frequency of environmental barriers" and barrier subscales "physical structure" and "services/assistance" was performed for different quartiles of distribution.

^b Adjusted coefficient (R^2_{adj}) = 0.42.

^c SE: standard error.

^d CI: 95% confidence interval.

cultures, usually associated with celebrations, business/social situations, religious ceremonies, and cultural events. Therefore, its consumption should be analyzed as a cultural behavior, taking into account the heterogeneity of modes of consumption and the reasons, beliefs, values, rituals, lifestyles, and worldviews that perpetuate it (21). On the other hand, alcohol abuse is responsible for about 3% of all deaths that occur globally (22), so its use by patients and relationship with positive social participation should be analyzed carefully. In general, the consumption of alcoholic beverages reported in this study, especially in situations of recreation and leisure, was associated with better social participation.

Maintaining work activities or being active in the labor market also seems to be a facilitating factor for social participation. According to the literature, work contributes to the construction of relations between the individual and society, creating a sense of identity and allowing people to define who they are by their occupations and abilities (23). In

this study, patients who remained active at work had levels of social participation significantly greater than those who were not involved in any work activity.

Work allows individuals to share experiences with others and engage in activities that go beyond their personal interests while acquiring a social status and professional identity that involves them in a larger number of social networks (23). Other studies have shown that the more time away from work, the more intense are the difficulties that the individual experiences in performing their professional duties (24–26).

The inability to exercise a worker role may lead to lifestyle changes, financial problems, inactivity, and dependency (23) and intensify difficulties in other areas of life. Therefore, finding ways to keep patients involved in work activities or developing strategies for their return to work may constitute health actions that facilitate patients' social participation.

The increase in environmental barriers in the everyday life of individuals can explain the increase in participation

restrictions. In this study, the environmental factors with adverse effects on social participation were lack of services and assistance, poor aid and social support, and, above all, inadequate physical structure in the local environment. Other studies examining the relationship between environmental factors and participation also found the physical environment to be the biggest barrier to participation (14, 27). Some authors have found that environmental characteristics and barriers in the physical environment lead to restrictions on participation in social situations (15, 28). The constructed environment is often reported as a barrier by specific groups, such as persons with mobility restrictions (27, 29–30). In the current study, in addition to the physical structure of the environment, availability of and access to health care and rehabilitation services were identified as environmental factors vital to social participation. Access to appropriate and resolute services in the community is extremely important, as these can help the individual return to an active life (28).

In Belo Horizonte, various municipal policies have been implemented with the aim of reducing environmental barriers and increasing accessibility and the social participation of the at-risk population, especially people with disabilities. The location of the city in a mountainous region requires constant investment to accommodate the disabled. Examples of policies designed to address this include a municipal decree that provides for the standardization of sidewalks with features to ensure universal accessibility (31).

Other projects in Belo Horizonte that seek to increase access for people with reduced mobility include 1) the adaptation of the city's bus fleet with wider corridors and seats for the elderly, disabled, and obese; 2) the implementation of the "BH Health Project"—a network of fitness centers linked to health care services to promote health and contribute to improving the quality of life for the general population and people with disabilities; 3) efforts to decentralize and regionalize health services; and 4) the use of devices (provision of health services, leisure facilities, etc.) to expand and match access to the needs of the population within the actual context in which they live. Still, more investment is required to address other environmental

barriers (beyond physical barriers) that may allow for the full integration of these individuals into society and to encourage their active participation in local social networks.

Support/assistance from social networks in the immediate environment of the study participants was associated with social participation, indicating that social capital may be one of the environmental factors most relevant to this variable. Support from family and friends is generally perceived as a facilitator of social participation (5, 32), as well as a key factor in helping patients adapt to new health conditions and the new challenges they create (29, 33).

In this study, environmental barriers related to policies and school/work were not associated with participation restrictions. One possible reason for the outcome for school/work barriers is the fact that, according to the CHIEF instruction manual, the school/work environment subscale should be applied only to those who are studying or working (15). In this study, the majority of participants were not working or were retired—and few were in school when the evaluation

was conducted—so barriers related to school and work were only reported by and thus evaluated for 26.5% of participants. With regard to policies barriers, the limited schooling of the study sample may have made it difficult for the participants to identify barriers related to public policies.

Conclusion

The findings of this study suggest that participation by people with disabilities due to chronic or acute diseases or conditions is associated with both individual attributes and environmental conditions. Barriers related to services/assistance, attitude/support, and physical structure were associated with restrictions on the social participation of the respondents. Thus, restrictions on social participation cannot be attributed solely to individual differences. Elements such as the natural environment, transportation, access to health care services, and social capital are perceived as important barriers to participation. These elements, although dependent on the individuals, are typically external

and potentially modifiable by government policies and actions.

Given the central role of environmental factors in the development of opportunities for an individual to participate socially, resources should be invested in reducing barriers to and enhancing the factors that facilitate the full participation and greater involvement of people disabled by health conditions or diseases in day-to-day social interactions.

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Conflicts of interest. None

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RESUMEN

Influencia del contexto en la participación social de las personas con discapacidades en el Brasil

Objetivo. Determinar los factores ambientales y personales asociados con la participación social de los adultos, en diversas situaciones de enfermedad o salud, que residen en las zonas urbanas de la Región Metropolitana de Belo Horizonte, del estado de Minas Gerais (Brasil).

Métodos. Se evaluaron las características individuales, la participación social y la percepción de las barreras ambientales de 226 pacientes tratados en un servicio público de rehabilitación de referencia. Se llevaron a cabo análisis de regresión con entrada jerárquica de los datos para comprobar la asociación de los factores personales y ambientales con la participación social.

Resultados. Un mayor número de años de escolarización, estar ocupado en el mercado de trabajo y el consumo de alcohol son condiciones que aumentan la participación social de los pacientes. El entorno natural, el transporte, el acceso a los servicios de salud y el capital social se perciben como las barreras más importantes a la participación. Con base en el análisis de regresión lineal, el coeficiente ajustado (R^2_{aj}) del modelo total fue de 0,42 ($P = 0,000$).

Conclusiones. Los resultados de este estudio pueden contribuir a la planificación y la ejecución de las intervenciones y políticas públicas a escalas individual y contextual que se consideren apropiadas para reducir las barreras y facilitar la plena participación.

Palabras clave

Participación social; medio ambiente; personas con discapacidad; Brasil.