ORIGINAL ARTICLE

Rehabilitation and attention to persons with disabilities in primary health care in Brazil: date from 2° and 3° cycles of the Program for Quality Assessment in Primary Care

Reabilitação e atenção à pessoa com deficiência na atenção primária à saúde no Brasil: dados do 2º e 3º ciclos do Programa de Avaliação da Qualidade a Atenção Básica

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ABSTRACT

Objective: Describe and compare actions of attention and rehabilitation in Primary Health Care (PHC) addressed to Persons with Disabilities (PWD) in Brazil. **Methods:** Retrospective data from Quality Assessment Program in Primary Care (PMAQ-AB, in Portuguese) were collected and analyzed considering Module IV of the 2nd (2015) and 3rd (2018) Cycles of the PMAQ-AB. Comparisons of the positive answers (yes) of the attention provided to PWD in the PHC were conducted by establishing the Prevalence Ratio (PR). The 2nd Cycle was the reference category, and the data were analyzed as national or regional samples. **Results:** The prevalence of positive answers for PWD care increased in the 3rd Cycle in the national sample concerning support in activities addressed to PWD, assessment and home adaptations, and promotion of the inclusion of PWD in sports and leisure activities. The prevalence of rehabilitation actions in PHC in Brazil has also increased. Changes in PWD care were found in the different geographical regions of Brazil. The Northeast region had the highest increase in attention activities for PWD, following the national trend, including an increase in referral for prostheses/orthotics and assistive devices. **Conclusion:** For most of the activities evaluated, there was an increase in performance prevalence between the assessments of the 2nd and 3rd Cycles of the PMAQ-AB. However, there is still a need to expand the offer of services in most regions of the country, favoring integral care for PWD.

Keywords: Quality Indicators, Health Care, Health Services Research, Primary Health Care, Disabled Persons/rehabilitation

RESUMO

Objetivo: Descrever e comparar ações de atenção e reabilitação na Atenção Primaria à Saúde (APS) direcionados à Pessoa com Deficiência (PCD) no Brasil. **Métodos:** Dados do Programa de Avaliação da Qualidade na Atenção Básica (PMAQ-AB). Foi realizada uma análise com base no Módulo IV do 2º (2015) e do 3º (2018) Ciclo do PMAQ-AB. Foram realizadas comparações da avaliação positiva ("sim") dos cuidados prestados à PCD na APS, através do cálculo a Razão de Prevalência (RP), admitindo o 2º Ciclo como categoria de referência e considerando dados nacionais e das cinco regiões geográficas. **Resultados:** A prevalência de repostas afirmativas para atenção à PCD aumentou no 3º ciclo no cenário nacional em relação ao apoio em ações direcionadas à PCD, avaliação e adaptação no domicílio e promoção da inserção da PCD em atividades de esporte e lazer. A prevalência de ações de reabilitação na APS no Brasil também aumentou. O cenário das mudanças no cuidado à PCD foi diferente entre as regiões brasileiras. A região Nordeste foi a que mais aumentou o percentual de ações de atenção à PCD, seguindo o padrão nacional, e ainda incluindo aumento no encaminhamento para uso de próteses/órteses e dispositivos de auxílio. **Conclusão:** Para a maioria das atividades avaliadas, houve aumento da prevalência de sua realização entre as avaliações do 2º e 3º ciclos do PMAQ-AB, entretanto há necessidade ainda de ampliar a oferta e o serviço de algumas atividades na maioria das regiões do país, favorecendo o cuidado integral à PCD.

Palavras-chaves: Indicadores de Qualidade em Assistência à Saúde, Pesquisa sobre Serviços de Saúde, Atenção Primária à Saúde, Pessoa com Deficiência/reabilitação

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INTRODUCTION

Persons with disabilities (PWD) have some long-term impairment, which can be mental, sensory, or physical. This condition, whether or not associated with other impairments, interferes with effective inclusion and participation in social life.[1] According to the World Health Organization (WHO), about 1 billion people in the world have some type of disability, and the prevalence rate, in most cases, is inversely proportional to the socioeconomic status of the countries.[1] According to data from the National Health Survey (2013), about 12.4 million (6.2%) people report some type of disability In Brazil.[2] Visual impairment is present in 3.6% of the population, followed by physical (1.3%), hearing (1.1%), and intellectual disability (0.8%).[2]

Global organizations and health programs investigate strategies to ensure health care and rights for PWDs. In this context, Primary Health Care (PHC) is essential in granting health promotion. The main proposal of PHC is to integrate and promote healthcare that meets individual or collective needs, not limited to clinical definitions, but promoting collaboration between professionals, patients, families, and the community. Studies show that quality PHC is the most successful and decisive way to invest and apply health resources.[3,4]

In Brazil, PHC is a model for providing health opportunities in an impactful way.[4] The Family Health Strategy (ESF, in Portuguese), supported by national policies, was implemented to expand the resolution of actions and services included in the PHC. Its capabilities for all-embracing actions were amplified with the inclusion of the Expanded Family Health and Primary Care Centers (NASF-AB, in Portuguese), which is formed by different health professionals, such as physiotherapists, occupational therapists, nutritionists, pharmacists, physical educators, social workers, psychologists, and speech therapists.[5,6]

In 2012, the Brazilian Directive 793/12 established how the Network Care for Persons with Disabilities (RCPCD, in Portuguese) should be organized within the PHC.[7] Considering PWD, the NASF-AB is critical for universal access to health services, being understood as a guarantee of broad health assistance, including comprehensive long-term care and assistance, which are predictable in rehabilitation programs.[8]

PHC is meaningful for providing healthcare to PWD since these patients have needs usually neglected in health services or met after overcoming significant barriers to access.[9] Despite the great advances, care strategies, and significant achievements in the autonomy of these individuals, barriers such as the lack of effective inclusive policies and determined and trained professionals for delivering proper health care considering the limitations of each patient are challenges to be overcome by the adequate assistance and rehabilitation of the PWD within the PHC.[10-12]

Given the various efforts to provide access to health services, the National Program for Improving Access and Quality of Primary Care (PMAQ-AB, in Portuguese)[13] is an attempt to contribute to PHC spread. The PMAQ-AB presents an aggregate of different strategies for qualification, assistance, and application of health team activities. Therefore, it is characterized by promoting significant contribution since it introduces a comprehensive evaluation of PHC performance, inducing the expansion of access and positive support in the quality of healthcare.[14] There are significant reports of limitations and barriers to the healthcare of PWD within the PHC in the specialized literature.[11,15] Nonetheless, no studies comprehensively explore the attention and rehabilitation given to PWD in Brazilian PHC.

OBJECTIVE

This study aims to describe and compare NASF-AB actions regarding healthcare and rehabilitation service for persons with disabilities in Brazil, considering the geographic regions in 2015 and 2018.

METHOD

The present study is an analysis based on Module IV's 2nd and 3rd Cycle of the PMAQ-AB data collected in 2015 and 2018, respectively. Based on an interview with dichotomous "yes" or "no" questions, the objective of Module IV is to evaluate the work process of the NASF-AB teams.

The PMAQ-AB is a public dataset released by the Brazilian Ministry of Health for online consultation and analysis.[16]

- 2nd Cycle at http://aps.saude.gov.br/ape/pmaq/ciclo2/
- 3rd Cycle at http://aps.saude.gov.br/ape/pmaq/ciclo3/

The PMAQ-AB is a survey for evaluating Primary Care Teams (PCT) from all over Brazil, with the participation of 30,523 EAB in the 2nd Cycle, representing 88.7% of the registered teams and 38,865 PCT during the 3rd Cycle, representing 94.0%. Regarding the NASF-AB teams, which answered Module IV used in this study, 1,774 NASF-AB teams participated in the 2nd Cycle (93.0%) and 4,031 in the 3rd Cycle (94.0%). Module IV addresses several aspects of the work of the NASF-AB, including actions addressed at PWD and physical rehabilitation.[16] The instrument addresses questions about the participation of the NASF-AB professional in the management of services, incorporation of Permanent Education actions in Health, coordination of care and integration with the Public Health Care Network, strengthening of intersectoral actions, and qualification of care in Primary Care. Actions for PWD are addressed among specific actions such as chronic diseases, child health care, mental health, actions related to nutrition and care for people with obesity, Integrative and Complementary Practices, pharmaceutical assistance, worker health, and approach to social issues.[16]

According to the National Research Ethics Commission (CONEP), by Resolution 466/2021, as the database is public, this study and publication do not require submission and approval by a Research Ethics Committee.

Questions related to care for PWD and rehabilitation actions present in both years (2015 and 2018) were included for the analysis of the study, namely: (1) Support from the NASF-AB to the ESF in actions addressed to PWD; (2) Assessment and guidance on PWD home adaptations; (3) Inclusion of PWD in sports, work, and leisure activities; (4) Health/promotion groups aimed at people in need of rehabilitation; (5) Individual and collective rehabilitation of musculoskeletal disorders; (6) Individual and collective rehabilitation of neuromuscular disorders; (7) Individual and collective rehabilitation of rheumatological disorders; (8) Individual and collective rehabilitation of urogynecological

disorders; (9) Assessment and referral for the use of orthoses/prostheses/mobility devices. All surveys were composed of "yes" or "no" questions.

In this study, the prevalence of positive answers (yes) concerning the care and rehabilitation provided by the NASF-AB to the PWD in the PHC of Brazil and its five geographic regions (North, Northeast, Center-West, Southeast, and South) were compared between the 2nd and 3rd cycles of the PMAQ-AB.

The total sample and regional subsamples in each Cycle were described by calculating the prevalence of "yes" and "no" answers to surveys in 2015 and 2018. To compare the prevalence of positive answers between both cycles, the Prevalence Ratio (PR) was calculated, with the 2nd Cycle (2015) as the reference category. The PR was considered significant by the 95% Confidence Interval (95%CI) analysis when the value "1" was not contained in the interval. When the value "1" is within the range, it means that, in an interval that covers 95% of the possible prevalence of "yes" answers in both moments of the study, they are statistically equal, therefore, there are no significant differences. The analysis was conducted with the statistical package "EpiR" in the R program version 4.0.0 (https://www.r-project.org/)

RESULTS

According to E-Gestor AB's online system (https://egestorab.saude.gov.br/), 5,067 NASF-AB teams were registered in 2015 and 5,783 in 2018, considering all the national territories. All registered teams were invited to join the PMAQ-AB, however, the adherence was below 100%16. We analyzed 1,773 NASF-AB teams in the 2nd Cycle of PMAQ-AB (2015) and 4,031 Teams in the 3rd Cycle (2018). Hence, in 2015, data from 34.99% of the NASF-AB teams in Brazil were analyzed, and, in 2018, with an increase in adherence to the PMAQ-AB, it was possible to analyze data from 69.70% of the teams. Considering the 2nd Cycle, 125 teams (7.0%) in the North region, 829 (46.7%) in the Northeast, 117 (6.5%) in the Midwest, 513 (28.9 %) in the Southeast, and 189 (10.9%) in the South region were included and analyzed. In the 3rd Cycle, our study included and analyzed data from 297 teams (7.3%) in the North region were included in the analysis, 1,699 (42.1%) in the Northeast, 307 (7.6%) in the Midwest, 1,153 (28.6%) in the Southeast, and 575 (14.4%) in the South.

Considering the entire country, we observed that the prevalence of affirmative answers given by the NASF-AB who treat PWD increased in the 3rd Cycle compared to the 2nd, concerning the evaluation and adaptation at home and the promotion of the insertion of PWD in sports and leisure activities. Rehabilitation actions for the evaluated specialties were also more prevalent in the 2018 evaluation.

There was no change between both evaluations regarding health promotion, disease prevention, and use of prostheses /orthoses and mobility devices addressed to PWD (Table 1).

The context of changes in PWD care was different across Brazilian regions. The Northeast region had the highest percentage of actions to support PWD, following the national pattern and also including an increase in referrals of prostheses/orthoses and assistive devices, being the only region to present this result.

Table 1. Prevalence ratio of positive answers considering the care delivered by the NASF-AB to PWD at Primary Care between the 2nd (2015) and 3rd (2018) cycles of PMAQ-AB

Answer	2015 (n= 1774)	2018 (n= 4031)	PR (CI95%)
NASF-AB Support to ESF / PCT for treatment of PWD			
Yes	1596 (90.0%)	3825 (94.8%)	1.05 (1.04 – 1.07)*
Assessment and guidance on home adaptations for PW			
Yes	1312 (85.3%)	3663 (95.7%)	1.12 (1.10 – 1.15)*
Inclusion of PWD into sports, labor, and leisure activities			
Yes	1157 (75.2%)	3201 (83.6%)	1.11 (1.08 – 1.15)*
Creation of groups for health promotion or injury prevention addressed at PWD			
Yes	1378 (86.3%)	3258 (85.1%)	0.99 (0.96 – 1.01)
Individual or collective rehabilitation for osteomuscular diseases			
Yes	1353 (84.8%)	3399 (88.8%)	1.05 (1.02 – 1.07)*
Individual or collective rehabilitation for neuromuscular diseases			
Yes	1333 (85.5%)	3393 (88.7%)	1.06 (1.04 – 1.09)*
Individual or collective rehabilitation for rheumatologic diseases			
Yes	1292 (81.0%)	3264 (85.3%)	1.05 (1.03 – 1.08)*
Individual or collective rehabilitation for urogynecologic diseases			
Yes	746 (46.7%)	2101 (54.9%)	1.18 (1.11 – 1.25)*
Assessment and referral to Orthoses, Prostheses, and Auxiliary Means of Locomotion services			
Yes	1306 (84.9%)	3406 (84.4%)	1.00 (0.97 – 1.02)

**Significant as the 95%CI does not include 1.00; CI, confidence interval; PR, prevalence ratio*

The Center-West region was the one that mostly maintained the pattern of healthcare, except for collecting support from the NASF-AB and rehabilitation of urogynecological disorders, a result which increased in the 3rd Cycle. It is also worth mentioning that, in the South and Southeast regions, health promotion and disease prevention actions and referrals for prosthesis/orthosis and auxiliary devices decreased in the 3rd Cycle (Table 2).

Table 2. Regional Prevalence Ratio of positive answers considering the care delivered by the NASF-AB to PWD at Primary Care between the 2nd (2015) and 3rd (2018) cycles of PMAQ-AB

Region	Answer	2015	2018	PR (CI95%)
		NASF-AB Support to ESF / PCT for treatment of PWD		
North	Yes	103 (82.4%)	280 (94.3%)	1.14 (1.05 – 1.25)*
Northeast	Yes	748 (90.9%)	1654 (97.4%)	1.07(1.05 – 1.10)*
Center-West	Yes	95 (81.2%)	283 (92.2%)	1.14 (1.03 – 1.25)*
Southeast	Yes	480 (92.3%)	1093 (94.8%)	1.03 (1.00 – 1.06)
South	Yes	170 (89.9%)	515 (89.6%)	1.00 (0.94 – 1.05)
		Assessment and guidance on home adaptations for PWD		
North	Yes	82 (79.6%)	269 (96.1%)	1.21 (1.09 -1.33)*
Northeast	Yes	630 (85.1%)	1621 (98.0%)	1.15 (1,12 – 1.19)*
Center-West	Yes	75 (88.2%)	259 (91.5%)	1.04 (0,95 – 1.13)
Southeast	Yes	397 (87.3%)	1036 (94.8%)	1.09 (1.05 – 1.13)*
South	Yes	128 (82.6%)	478 (92.8%)	1.12 (1.04 – 1.21)*
		Inclusion of PWD into sports, labor, and leisure activities		
North	Yes	71 (68.9%)	247 (88.2%)	1.28 (1.12 – 1.47)*
Northeast	Yes	554 (74.9%)	1426 (86.2%)	1.15 (1.10 – 1.21)*
Center-West	Yes	60 (70.6%)	224 (79.2%)	1.12 (0.97 – 1.30)
Southeast	Yes	366 (80.4%)	948 (86.7%)	1.08 (1.02 – 1.13)*
South	Yes	106 (68.4%)	356 (69.1%)	1.01 (0.90 – 1.14)
		Creation of groups for health promotion or injury prevention addressed at PWD		
North	Yes	80 (77.7%)	225 (80.4%)	1.03 (0.92 – 1.16)
Northeast	Yes	614 (82.1%)	1398 (84.5%)	1.03 (0.99 – 1.07)
Center-West	Yes	85 (89.5%)	238 (84.1%)	0.94 (0.86 – 1.02)
Southeast	Yes	452 (94.2%)	993 (90.9%)	0.96 (0.94 – 0.99)*
South	Yes	147 (86.5%)	404 (78.4%)	0.91 (0.84 – 0.98)*
		Individual or Collective rehabilitation for osteomuscular diseases		
North	Yes	86 (83.5%)	251(89.6%)	1.07 (0.98 – 1.18)
Northeast	Yes	655 (87.6%)	1546 (93.5%)	1.07 (1.04 – 1.10)*
Center-West	Yes	76 (80.0%)	240 (84.8%)	1.06 (0.95 – 1.19)
Southeast	Yes	400 (83.3%)	939 (85.9%)	1.03 (0.98 – 1.08)
South	Yes	136 (80.0%)	423 (82.1%)	1.03 (0.94 – 1.12)
		Individual or Collective rehabilitation for neuromuscular diseases		
North	Yes	83 (80.6%)	256 (91.4%)	1.13 (1.03 – 1.26)*
Northeast	Yes	645 (86.5%)	1551 (93.8%)	1.09 (1.05 – 1.12)*
Center-West	Yes	74 (77.9%)	237 (83.7%)	1.08 (0.95 – 1.21)
Southeast	Yes	396 (82.5%)	929 (85.0%)	1.03 (0.98 – 1.08)
South	Yes	135 (79.4%)	420 (81.6%)	1.03 (0.94 – 1.12)
		Individual or collective rehabilitation for rheumatologic diseases		
North	Yes	85 (82.5%)	224 (86.2%)	1.04 (0.94 – 1.16)
Northeast	No	119 (15.9%)	131 (7.9%)	
Northeast	Yes	629 (84.1%)	1523 (92.1%)	1.10 (1.06 – 1.13)*
Center-West	Yes	63 (66.3%)	217 (76.7%)	1.16 (0.99 – 1.35)
Southeast	Yes	385 (80.2%)	883 (80.8%)	1.01 (0.96 – 1.06)
South	Yes	130 (76.5%)	397 (77.1%)	1.01 (0.92 – 1.11)
		Individual or collective rehabilitation for urogynecologic diseases		
North	Yes	46 (44.7%)	147 (52.5%)	1.18 (0.92 – 1.50)
Northeast	Yes	297 (39.7%)	920 (55.6%)	1.40 (1.27 – 1.55)*
Center-West	Yes	30 (31.6%)	140 (49.5%)	1.57 (1.14 – 2.15)*
Southeast	Yes	278 (57.9%)	611 (55.9%)	0.97 (0.88 – 1.06)
South	Yes	95 (55.9%)	283 (55.0%)	0.98 (0.84 – 1.15)
		Assessment and referral to Orthoses, Prostheses, and Auxiliary Means of Locomotion services		
North	Yes	85(82.5%)	258 (86.9%)	1.05 (0.95 – 1.16)
Northeast	Yes	621 (83.9%)	1526 (89.8%)	1.07 (1.03 – 1.11)*
Center-West	Yes	69 (81.2%)	226 (73.6%)	0.91 (0.80 – 1.02)
Southeast	Yes	395 (86.8%)	952 (82.6%)	0.95 (0.91 – 0.99)*
South	Yes	136 (87.7%)	444 (77.2%)	0.88 (0.82 – 0.95)

**Significant as the 95%CI does not include 1.00; CI, confidence interval; PR, prevalence ratio*

DISCUSSION

The findings of this study show that, according to a comparison of the 2nd and 3rd cycles of the PMAQ-AB results, there was an increase in the percentage of positive responses concerning health care and rehabilitation services performed by the NASF-AB teams addressed to PWC, considering Brazilian regions. In a project conducted in a metropolitan region of Chile, the application of the Community-Based Rehabilitation (CBR) assistance model also showed positive responses to the interventions delivered to PWD healthcare and inclusion.[17]

Comparing both cycles, we observed that the percentage of teams that adhered to the PMAQ-AB increased. Adherence to the PMAQ-AB was positive and increasing across all cycles, with participation above 70%, indicating the team's acceptance and an effort to adjust the healthcare units to evaluate and advance the program's performance indicators generated by the program.[18]

Based on data from the 2nd Cycle, a study analyzed the NASF-AB general actions combined with the ESF. It rated its

diagnosis as positive, indicating that more than 80% of the teams worked together for action planning, activity schedules, and program activities to enhance common medical records, favoring integrality.[19] These results are similar to those found in the present study, where the actions addressed at PWD in the 2nd Cycle represent 90% of the NASF-AB combined with the ESF, assuring integrality as a fundamental factor of adequate care in PHC.[20]

The present study analyzed possible changes in PWD healthcare delivery between the 2nd and 3rd cycles of the PMAQ-AB. An increase was observed in the percentage of actions the teams reported. One reason for this increase may be the program evaluation methodology itself, which, in the 2nd Cycle, allowed the inclusion of NASF-AB teams without the associated ESF adhesion. This event indicated isolation or fragmentation between the NASF-AB and ESF. In the 3rd Cycle, the NASF-AB teams could not join without their associated ESF. This decision caused the assessment of those teams to be integrated into their associated ESF.[21]

Another possible explanation for the increase in the performance of care and rehabilitation actions for PWD by the NASF-AB associated with the ESF is the release of Directive 793/2012, establishing guidelines for the employment of the RCPCD, which brings proposals for the three levels of the Health Care Network. The Directive includes the NASF-AB and ESF as components of PHC, including early diagnosis, accident prevention, development of community-oriented programs, family guidance, and monitoring of home care for PWD undertaking any treatment from these teams.[7] Such actions are associated with the PMAQ-AB items more frequently performed in the 3rd Cycle, indicating increased attention towards those teams working in PHC whose activities were addressed to PWD.

Directive 835/2012[22] established the basis for RCPCD financing and provided substantial financial transfers to such activities. In addition to the expected gain from the adequate assessment obtained in the PMAQ-AB, such actions may have encouraged the teams to invest in these activities. These financial transfers could provide expanded assistance and service qualification with proper hiring and personnel training, strengthening the structure of PHC.[23] In addition to the financial issue, the Network advocates comprehensive care, an attribute of PHC.[23] This matter may also have influenced the greater involvement of PHC teams after the implementation of RCPCD.

A study conducted in João Pessoa (Paraíba – Brazil) with PWD enrolled at the ESF identified that 71.7% of respondents had difficulties participating in meetings or groups in the community, and, among those who did not participate, 37.5% reported they wished to participate.[24] Concerning PWD, difficulties in accessing PHC are one of the most relevant and oldest questions raised by Brazilian patients, as well as in other countries such as Canada, in which a study found that about a third of PWD reported difficulty in accessing a medical office, assistive device or the family bathroom.[25] Varied choices of leisure, work, or sports activities for the community favor the engagement and increased social participation of PWD.[24]

The comparison between the prevalence of NASF-AB actions between the 2nd and 3rd Cycle of the PMAQ-AB showed an increase in the performance of individual and collective rehabilitation activities for musculoskeletal, neuromuscular, rheumatological, and urogynecological disorders. All centers associated with the CBR strategy implemented in Chile conducted group rehabilitation activities, and 86.0% completed home visits and individual rehabilitation activities.[17] The growth of such strategies is fundamental for expanding care for PWD within the scope of PHC. They are facilitators for the achievement of PWD care strategies within PHC, including rehabilitation activities, home visits, and matrix-based support, which is a shared healthcare strategy focused on integral attention and interdisciplinary health support.[26] The availability of physical, speech, and occupational therapists evolved in Sao Paulo between 2007 and 2015, although this increase was much smaller in PHC compared to Specialized Care and Hospital Care.[27] Despite this growth, the study shows the difficulty in conducting specific PHC actions, such as the expanded clinic intervention, the single therapeutic project, and matrix-based support.[28] Despite these challenges, a study of the profile of rehabilitation care in PHC identified that the NASF-AB attended 34.4% of the patients who looked for the unit, 38.5% received home care intervention, and a multidisciplinary team treated 31.3%. The author considered that the team significantly contributed to extensive care in rehabilitation, based on integral attention.[29]

One of the items that did not change between the evaluated cycles was the delivery of health promotion or disease prevention addressed to patients who need rehabilitation. Analyzing the first ten years of the NASF-AB establishment, such centers proved to be innovative as a team capable of working within a multidisciplinary fashion, with intersectoral interventions and activities for the prevention of diseases and health promotion. However, some difficulties were found when introducing such actions in their routine.[29]

Once rehabilitation is often seen as an individual and curative intervention, its application as prevention is usually overlooked. Another study observed that prevention and health promotion are often not included by the ESF as intervention possibilities by the NASF-AB, or, in an even more curative scenario, they are not institutionally inserted in the intervention strategies of the Hospital or Clinic Units, regardless of the patient.[30]

An assessment of the NASF-AB based on the patients' perception indicated that access to the team is considered restricted, and the development of continued care is fragile with little articulation with the Care Network.[31] This issue is challenging to RCPCD since the increase in different approaches observed in our study may not ensure comprehensive, longitudinal, and increased care for PWDs. Moreira et al.[31] state that prevention and health promotion groups can be tools to strengthen bonds with patients. We emphasize that this is one of the strategies that did not increase among the PHC actions investigated in our study, even after the guidelines proposed by Directive 793/2012.[7]

A study by Pereira & Machado[32] presents this reality by identifying a disarticulation between the services included in the RCPCD in a Microregion of Rio de Janeiro State, especially regarding referral and counter-referral. The mechanism they adopted is purely institutional and formal and does not contribute to comprehensive care or the access of users with disabilities to the service for which they are referred. Similar

difficulties also occur when returning to PHC after attending the Network's most complex level, determining a low resolution between the cases. Likewise, these results may indicate that the increase in the performance evaluated by PMAQ-AB regarding PWD may not guarantee that the RCPCD is active and reaching its objective of comprehensive care.

The evaluation and referral of PWD to services of assessment and prostheses/orthoses and auxiliary devices were constant between both cycles of the PMAQ-AB. This finding is surprising since the RCPCD implemented in 2012 encouraged and regulated the application of Orthopedic Workshops combined with Specialized Care. Also, this service became responsible for the production, adaptation, and maintenance of Orthoses, Prostheses, and Auxiliary Means of Locomotion (OPM, in Portuguese). Therefore, we expected the OPM services should have increased the supply of assistive technologies from one Cycle to the other.[23] The constant prevalence of referral to OPM jeopardizes the care of PWD in the health network, as the Guide for Prescription, Concession, Adaptation, and Maintenance of Orthotics, Prostheses and Auxiliary Means of Locomotion, published by the Brazilian Health Ministry in 2019, defined that the PHC is responsible for monitoring those who receive such devices, developing guidelines for homemade adjustments, promoting family involvement, and maintaining the attention.[33]

Regarding regional differences, the Northeast region increased the offer by the NASF-AB of all services evaluated, including those regarding OPM. The Northeast region shows a growing tendency to implement the ESF, NASF-AB, and a solid PHC. In this region, PHC is a model for health care, and its strategies are acknowledged within the network.[34] This finding was observed in our study, where most teams participating in both cycles are from the North region. This worthy organization and consolidation of actions are also reflected in the care for PWD.

We identified that, in the South and Southeast regions, there was no increase in combined actions between ESF and NASF-AB addressed to PWD, and other activities evaluated were less frequently reported in the 3rd Cycle of the PMAQ-AB, such as access to OPM. This situation can be explained by the excellent availability of technology and Specialized Rehabilitation Centers (CER, in Portuguese) in these regions, which allow users access to the secondary level of the Network without going through the PHC, which is not recommended by the Directive 793/2012.[7] A study by Silva et al.[35], conducted with data from the 3rd Cycle of the PMAQ-AB, identified that in the South and Southeast regions, there is more technological equipment available for rehabilitation programs within the PHC, although fewer NASF-AB teams were identified.

Even though our findings brought relevant issues concerning the NASF-AB based on the PMAQ-AB, we acknowledge that the lack of details on the performance of the actions analyzed by the NASF-AB in the Units is a limitation, as a more in-depth description is not possible by the data from the PMAQ-AB. Nonetheless, the use of this database is a compelling aspect of the study, as it provides information on a national scale, and, due to the uniformity of the assessments between both cycles, it allowed the comparison of two moments and the detection of changes due to the RCPCD implementation process.

In general, the results of the study indicate that the implementation process of the RCPCD initiated in 2012 may have fostered the performance of interventions designed for PWD in the PHC, as we observed an increase in the NASF-AB activities performance between the years 2015 and 2018. We also emphasize that, although the Directive that creating the RCPCD is national, the Network is managed by each State, which may explain the regional differences.

The Network Care for Persons with Disabilities should be further investigated, as well as its implementation process, the challenges and health care they offer to this population, considering the role of PHC as a coordinator and organizer of the Network. Ongoing projects in the country must have their results carefully analyzed and shared with healthcare organizations to support managers and health professionals.

CONCLUSION

The comparison of interventions and rehabilitation for Persons with Disabilities by the NASF-AB evaluated in our study shows an increase in such activities. However, they were different between the five regions. The Northeast region was the one that most increased the prevalence of service provision, indicating a pioneering role in this region in the growth of the NASF-AB. In comparison, the South and Southeast regions did not present investments in rehabilitation at this level of care, even though these are more developed regions, confirming a more secondary profile of the provision of these services. Concerning some services addressed to PWD, such as referrals to Orthopedic Workshops, there was no increase throughout Brazil regardless of the region, which indicates that some aspects are not yet consolidated as an integrated network.

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