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☑ Implementation science in nursing, health, and education

Intervening conditions of the implementation of an Advanced Access Model: an implementation research

Condições intervenientes à implantação do modelo de Acesso Avançado: uma pesquisa de implementação

Condiciones que intervienen en la aplicación del modelo de acceso avanzado: un estudio de aplicación

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ABSTRACT

Objective: To identify the conditions that interfere with the implementation of the Advanced Access model in primary health care.

Method: This is an implementation research that used the Consolidated Framework for Implementation Research (CFIR). The CFIR provides a classification of factors that affect the implementation of a technology and comprises five domains: characteristics of the intervention, external environment, internal environment, individuals, and process. The study setting included 13 Health Units in the southern region of the city of São Paulo-SP. 39 health professionals and 10 managers participated. Data was collected through semi-structured interviews. These were recorded and transcribed, and the text data was coded based on pre-established codes derived from the CFIR domains.

Results: Four categories were found that impacted the implementation of the AA model in services: 1) Characteristics of the Advanced Access model that impacted implementation; 2) Organization of the health sector and the Advanced Access model; 3) Characteristics of the individuals involved in the innovation; and 4) The planning and leadership model for implementation.

Final Considerations: The social, structural, and professional conditions in the municipality of São Paulo made it difficult to implement the AA model. The implementation research supported the process of improving access in the health units studied and provided evidence of what helped and what hindered the restructuring of the access model in these places.

Descriptors: Implementation Science. Health Services Accessibility. Primary Health Care. Organizational Innovation. Barriers to Access of Health Services.

RESUMO

Objetivo: Identificar condições que interferem na implantação do modelo de Acesso Avançado em unidades de atenção primária à saúde.

Método: Trata-se de uma pesquisa de implementação que utilizou o quadro conceitual do Consolidated Framework for Implementation Research (CFIR). O CFIR fornece uma classificação dos fatores que afetam a implementação de uma tecnologia e compreende cinco domínios: características da intervenção, ambiente externo, ambiente interno, indivíduos e processo. O cenário do estudo foram 13 unidades de saúde na região sul do Município de São Paulo/SP. Participaram 39 profissionais de saúde e 10 gestores. Os dados foram coletados através de entrevistas semiestruturadas. Estas foram gravadas e transcritas, os dados de texto foram codificados com base em códigos pré-estabelecidos derivados dos domínios CFIR.

Resultados: Encontraram-se quatro categorias que interferem na implementação do modelo de AA nos serviços: 1) Características do modelo Acesso Avançado que impactaram na implantação; 2) Organização do setor da saúde e o modelo Acesso Avançado; 3) Características dos indivíduos envolvidos na inovação; e 4) O modelo de planejamento e liderança para a implantação.

Considerações Finais: As condições sociais, estruturais e profissionais existentes no Município de São Paulo dificultaram a implantação do modelo AA. A pesquisa de implementação apoiou o processo de melhoria do acesso nas unidades de saúde estudadas e ofereceu evidências sobre o que ajudou e o que dificultou a reestruturação do modelo de acesso nesses locais.

Descritores: Pesquisa de implementação. Acesso aos serviços de saúde. Atenção Primária à Saúde. Inovação Organizacional. Barreiras ao acesso aos cuidados de saúde.

RESUMEN

Objetivo: Identificar las condiciones que interfieren en la implantación del modelo de Acceso Avanzado en las unidades de atención primaria a la salud.

Método: Esta es una investigación de implementación que utilizó el marco conceptual del Marco Consolidado para la Investigación de Implementación (CFIR). El CFIR proporciona una clasificación de factores que afectan la implementación de una tecnología y comprende cinco dominios: características de la intervención, entorno externo, entorno interno, individuos y proceso. El ámbito del estudio fueron 13 Unidades de Salud de la región sur de la ciudad de São Paulo-SP. Participaron 39 profesionales de la salud y 10 directivos. Los datos fueron recolectados a través de entrevistas semiestructuradas. Estos fueron grabados y transcritos, los datos del texto se codificaron con base en códigos preestablecidos derivados de los dominios CFIR.

Resultados: Se encontraron cuatro categorías que impactaron la implementación del modelo AA en los servicios: 1) Características del modelo de Acceso Avanzado que impactaron la implementación; 2) Organización del sector salud y modelo de Acceso Avanzado; 3) Características de los individuos que participaron en la innovación; y 4) Modelo de planificación y liderazgo para su implementación.

Consideraciones finales: Las condiciones sociales, estructurales y profesionales del municipio de São Paulo dificultaron la implantación del modelo de AA. La investigación de implementación apoyó el proceso de mejora del acceso en las unidades de salud estudiadas y generó pruebas de lo que ayudó y lo que dificultó la reestructuración del modelo de acceso en estos lugares.

Descriptores: Ciencia de la Implementación. Accesibilidad a los Servicios de Salud. Atención Primaria de Salud. Innovación Organizacional. Barreras de Acceso a los Servicios de Salud.

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INTRODUCTION

The Single Health System (SUS) in Brazil represents a significant milestone in the context of health access. It is a public policy that seeks to ensure the universal right to medical care[1] and stands out due to its scope, providing integral, free care to the Brazilian population as a whole[2]. Primary Health Care (PHC) is the main strategy for the organization of the health system [3].

Considering health care as a network, the PHC ensures order in the provision of care. It has a great potential to solve most needs of users, but to reach this goal, the access to health services must be expanded[4]. The access to health services is an attribute of PHC, in addition to a huge challenge for SUS. In the organization of Brazilian health services, the access model used is based on a "planned schedule", used to carry out any health care services. This model leads to long waiting times. Also, the type of attention required is often unavailable. The consequences of this model are the lack of quality assistance, and the hindering of universal access to health services[5]. The need to review this access model was also pointed out by a previous study[6], which indicated that the access to these services is still poor for a considerable portion of the Brazilian population, especially the more vulnerable one.

In São Paulo, the use of a "planned schedule" model was related to waiting lines of 60 days or more to receive care from the health team[7]. This type of scheduling was also associated with high absenteeism of users to the scheduled appointments, and to the dissatisfaction of users with the health unit[8]. Another consequence of this scheduling model is related to higher costs in the health system, since users would seek more complex health care due to the fact they could not access the PHC[9]. This situation raised the awareness of the city of São Paulo to the need to change the organization of the scheduling model, in order to improve the PHC and the access to it. In 2017, in the south of São Paulo, a project was started to implement a new scheduling model called "Advanced Access" (AA)[9;10].

The AA was chosen as, to expand the access to PHC, health units would need to develop models to organize health care that could overcome the "programmatic and programmed schedules", investing in strategies such as flexible schedules and times, that could expand their working hours, incorporating technologies such as electronic communication and others[11].

The AA model was developed more than two decades ago in the USA by specialists in access systems, health care flow and organization, with the goal of managing public health policies. However, it is important to remember that public health policies in that country are extremely different from those of SUS. The AA model, nonetheless, was expanded to countries such as Canada and England[12,13]. In Brazil, there have been isolated experiments using this model. The first records of its implementation are from 2015[9].

The AA model can be characterized as a soft technology that reorganizes PHC, aiming to rebuild the schedules of professionals who work in this line of care. It is focused on increasing the provision of care and procedures to the population. The AA model is based on the premise of "doing today what the user needs today". It seeks to achieve this goal by enabling the user to get in touch with the health team in order to receive care in the same day they request it, or at most in 48 hours[12]. The AA model allows equating the supply/demand relationship in the service, reducing waiting time for consultations with a professional from the reference team, be it the physician, the nurse, or any team member[13].

The AA model is implemented based on five essential requisites: 1 - Comprehensive planning, considering needs, supplies, and recurring variations; 2 - Regular adjustment of supply to attend the demand; 3 - Efficient processes to schedule consultations; 4 - Integration and optimization of collaborative practices; 5 - Clear communication about advanced access and its functionalities[14].

Considering that: 1) the implementation of the AA model has been the object of sporadic experiences in several Brazilian cities or regions, and 2) the territorial, cultural, and health care diversity of Brazil, this study aims to provide a methodological and organizational contribution to the changes that need to happen so access to PHC is increased, helping understand "why" and "how" innovations work. The goal of this research was identifying the conditions that interfere in the implementation of the Advanced Access model in primary health care units.

METHOD

This is an implementation research that used the Consolidated Framework for Implementation Research (CFIR), developed by Laura J. Damschroder[15].

Implementation Research (IP) is a specific scientific approach that evaluates the effectiveness of incorporating evidence-based interventions and policies into the routine of the health system. The IP focuses on the elements that facilitate the implementation of evidence-based interventions in public and private health systems. It also considers obstacles to the implementation and promotes the

application, use, and sustainability of these interventions on a large scale[15].

Implementation science is based on the presuppositions that one intervention can only produce its expected results if implemented effectively. In addition to the concept of effectiveness of the intervention or technology, implementation science seeks to monitor how effective its implementation is, considering it as its final object. It also recognizes that the implementation of interventions in health can be affected by aspects such as the characteristics of the intervention, the context, the people involved and the process, implementation science also seeks to give researchers the instruments to identify factors that can facilitate or hinder any of these dimensions. These instruments are based on more than 60 theories, structures, and implementation models registered in literature[16].

We chose the CFIR as a model as it is based on the importance of understanding contexts for the implementation of innovations, believing that the identification of facilitators and barriers is a powerful strategy, with an influence on the efficacy of implementation of a technology or program[16]. The CFIR is formed by five domains and their constructs. The CFIR domains are: a) intervention characteristics; b) external context; c) internal context; d) individual characteristics; and e) implementation processes[16]. The stages of the CFIR include mapping the contexts associated with the AA model. Some instruments are provided by the CFIR to this end [17]. They were used, in an adapted form, in this study.

The setting/context of this study was the south of the municipality of São Paulo/SP. São Paulo is the largest and most populous capital in Brazil, with more than 11,451,999 people [18]. The south of São Paulo is formed by the administrative districts of Campo Limpo (218,758 inhabitants), Vila Andrade (143,008 inhabitants) and Capão Redondo (268,481 inhabitants), a total of 641,764 thousand residents [19].

In regard to PHC, this region has 13 Primary Health Care Units, with 87 family health teams (FHT) that provide assistance to the population of Campo Limpo and Vila Andrade, a total of 361,766 people. These units function in the model of Family Health Strategy (FHS), which is based on a collective, interpersonal approach, whose focuses are the family and the community. It is formed by FHT including nurses, physicians, nursing technicians, dentists, and community health agents (CHA)[20, 21].

Research subjects formed a sample including medical professionals, nurses, dentists, and coordinators of the 13 UBS with FHS. Health workers who participated in the research were selected with UBS coordinators. The inclusion criteria was having experience with the implementation of the AA model in their team. All professionals selected were "invited" to participate. They were informed about research details by reading and accepting the Informed Consent Form. 49 interviews were carried out (39 workers and 10 managers), from a total of 108 professionals "invited".

The process of AA implementation started in 2018, through workshops in the health units, whose goal was preparing health workers to operate the model. Furthermore, strategies and protocols were implemented to enable more flexible schedules and the potential clinical resolution of cases in the first consultation[22].

During the implementation process, the research team adopted the strategy of "group mentoring". In this strategy, work teams are accompanied by workers from different specialties, in order to help them reflect on their practices and accelerate cycles of planning and action. "Group mentoring" can be considered a strategy to accelerate the translation of knowledge, incrementing the scalability of a technology[23].

Thus, every month, researchers would participate in the meetings of UBS teams, monitoring their discussions regarding the AA model, helping them deal with any issues by offering theoretical and practical materials for the group. The research implementation project was expected to last for two years; however, due to the COVID-19 pandemic, this period was extended to four years. In the first stage, interviews happened in-person. In the second, due to the pandemic, there were distance interviews. All were recorded and carried out using a semistructured instrument with open questions. Their goal was capturing the perceptions of professionals about the implementation and functioning of the AA model in their UBS and/or FHS team (adapted from the CFIR)[15,16]. Questions were related to the training that professionals received, the clinical protocols they implemented, the models of planning to (re)size supply and demand, the possibility of elaborating contingency plans, and the support received from superiors.

Data collection had two phases. The first took place in 2019 (one year after the implementation measures began), and the second, in 2021 (after two years of follow-up). This period was chosen due to the structure recommended by the CFIR[15] and, in this specific case, researchers decided that one year would be an adequate length of time for the adjustments in work practices required by the AA to be experienced by those involved. Two interviews would be conducted as a way to evaluate the actions being implemented, and how they were close or distant from the AA model.

The audio recorded from the interviews was transcribed and analyzed according to preestablished categories, which were: characteristics of the intervention, external context, internal context, characteristics of the individuals, implementation process. These categories derive from the domains of the CFIR[17]. After these analyzes and syntheses were carried out, the results were grouped into categories and analyzed according to Bardin [24]. These syntheses were used as courses, workshops, and mentorships for professionals and managers of the UBS, in order to guide the implementation of the actions and improvements needed. Thus, this process of gathering data, giving feedback, and then gathering data once more, was constant throughout the research.

This study is derived from the larger project: "Implementation of advanced access in family health units: processes and results", which received ethical opinion CAAE: 10477319.1.0000.5392 and funding from CNPq/DECIT under number 440347/2018-1.

RESULTS

The results of the implementation research were presented in the form of outcomes of interest for the process of translation of knowledge. Thus, as opposed to a common feature of qualitative research, the results of the implementation research are not restricted to presenting the strategies used for the implementation of the AA model. Instead, they focus on the elements that need to be ensured, so the effectiveness of the implementation can be guaranteed. These elements include acceptability, appropriateness, feasibility, and reliability. Therefore, the results below are related to the process synthesis related to the facilitators and barriers to the implementation of the AA, organized in the following dimensions: Characteristics of the AA model that impacted its implementation; The organization of the health sector and the AA model; Characteristics of the individuals involved in this change; Process of planning and leadership.

Characteristics of the AA model that impacted its implementation

It is important, in an implementation research, to illuminate the "characteristics of the innovation" that one attempted to implement, in order to understand which of these characteristics may be having a positive or negative impact on the implementation process. From this perspective, the analysis sought constructs such as: Origin of the intervention; Strength and quality of the evidence, as related to its functionality; Relative Advantages that this innovation could bring; Adaptability; Testability; Complexity; Cost; and others.

Data analysis showed that, although the AA model is widely accepted by professionals, there is an unbalance between supply and demand which prevents its implementation. After all, developing balance in this regard implies building a constant analytical ability to dynamically understand these relations, so one can choose actions that can affect either demand or supply in order to reach balance.

According to the professionals interviewed, the balance between supply and demand involves actions such as: defining the number of consultations and users for each team of the FHS; determining the attention rate of each user, per professional and per type of care (medical consultation, nursing consultation, continuous care, shared consultation, group consultation, etc.); filling in spreadsheets with data, per team and per professional.

Still from the perspective of balancing supply and demand, it would be necessary to transfer users to other professionals when the team's capacity of providing service is balanced with the demand, but there is an unbalance between professionals. Another strategy would involve working to reduce demand or to improve supply, if there was an excessive number of users per team or per professional. In the FHS, this is made difficult by the bureaucracy of the service.

For the AA model, daily electronic records indicating demand and the available supply of services in the UBS and for each worker is essential, but could not be immediately done in the FHS analyzed. Monitoring how each team attends patients monthly, implementing longer schedules, defining the third next consultation, among other actions, were also cited as difficult to carry out in the FHS units; these are, however, core actions in the AA model.

In summation, the subjects of this research considered that actions to ensure the operationalization of the AA model were not incorporated into the work of professionals. According to them, not even the electronic records, which are essential for the communication and self-evaluation of FHS teams, were fully implemented. Therefore, prerequisites of the AA model to balance supply and demand could not be implemented. As a result, according to interviewees, implementation of the AA model failed, as it was unfeasible.

The organization of the health sector and the AA model

The so-called inner settings and outer settings are extremely important dimensions of analysis in an implementation research. The constructs that are more directly related to the external setting refer us to the needs and resources of users, dealing with issues such as external policies and incentives, having in mind the innovation one seeks to implement, peer pressure, and the urbanity of the proposal. The constructs for the inner setting, on the other hand, are more specifically tied to the structural characteristics of the context, including networks of communication and relationships; organization culture; the relative priority of the implementation of the innovation; the learning environment in the institution; the readiness of the implementation; the commitment of the leadership; the resources available; and others.

In terms of political and cultural structure, the sustainability of the AA model was impaired, as it was hard to change personnel, rules related to funding or distribution of financial resources, and others, which brought instability and difficulties to maintain a health care model that depends so strongly on good teamwork.

Interviewees pointed out that one of the obstacles related to inner and outer settings of the implementation of the AA model is the fact that the territory is very vulnerable, with a very poor population, with low educational level and scarce ability to perform self-care. This leads to a high demand for attention, in addition to favoring the so-called "hyper-users".

Another obstacle is the difficulties when referring to specialists and exams, that is, the lack of alignment within the service network, in addition to a population that is highly focused on physicians. The lack of preparation of users to take a position regarding public policies, finances, and other topics relevant to the SUS has a direct impact on the health care provided to the population.

Factors that facilitate the implementation of the AA model include institutional culture and the commitment of UBS managers. A partnership between these managers and popular councils, their commitment to bring about changes to improve people's lives, and their access to basic health services were a factor that facilitated the implementation of the AA model. The professionals who participated in the research mentioned the technical support from the central management as something really important for the implementation of this model.

It is worth remembering that one of the essential measures to implement the AA model is to review how well supply and demand are balanced. This balance between supply and demand is not in the scope of the FHS team "governance"; it is an attribution of city and state management. The control of supply and demand is carried out using a system of "payment per action", that is, the local services are "paid" as they "provide" certain actions, predetermined by the Ministry of Health. This implies a certain rigidity regarding the ability to choose which actions can or cannot be offered.

Another variable is related to the fact that implementing the AA model invariably interferes with issues such as the increased productivity of health workers through a rationalization of care flows and reduction of waste, redundancy, and repeated work, which is not always accepted by unions and other organs that represent certain categories.

Another weakness found was the lack of quality indicators analyzing the access to health services. Professionals highlighted the need to create and test quality-monitoring indicators in order to have access to health services. Indicators selected included a programmed demand schedule, which reached 30%, and the spontaneous demand schedule, which reached 70%, in addition to ensuring that care was longitudinal and problem-solving. Still, interviewees pointed out that, to reach these indicators considering the vulnerability of this population, the FHTs had to be responsible for 2000 to 3500 people, as described in the PNAB[25]. However, not all of them fit this description.

Characteristics of the individuals involved in the change

From this dimension of results, the constructs that should be considered are especially related to knowledge and beliefs about the innovation to be implemented; self-efficacy of those who will operate the innovation; the individual stage of change; and other personal attributes that may emerge and have an impact in the implementation of the AA model.

Health workers recognized they did not understand what the AA model is very well, since they were unable to participate in the training sessions the health units provided about the model. The statements from these professionals showed that they were incapable of introducing innovation such as distance care, WhatsApp® contact, protocols, and attention flows that could articulate longitudinal care in their work process, making it autonomous.

Professionals considered that, without these innovations, the sustainability of the AA model was harmed. Physicians and nurses considered that the AA model increased the likelihood that users would access health services, as it allows attending those "who need it at the time they need it". These professionals also stated that the AA model organizes flow, prevents long waiting times, and allows users to be attended by workers from the health team that attends their region.

Interviewees also recognized that the AA model enables clinical practice to assume a central position, especially on the part of nurses.

Barriers for the implementation of the AA model, as indicated by the health workers, include: the overload this model brings to smaller teams; the lack of physical structure in health units; the fact that there are much more users than the recommended; the fact that attention is exclusively face-to-face; the turnover; and the low clinical qualification of the professionals working in the FHS.

Another indicator for the AA implementation that was related to the characteristics of the health workers was the problem-solving capability of nurses. It was pointed out that the implementation of the AA model requires nurses to be capable of dealing with the issues presented. Nonetheless, the clinical autonomy of the nurse is quite restricted in the FHS, and their problem-solving abilities are limited for certain health issues. As a result, although nurses have the potential to deal with many of the issues presented, their lack of clinical autonomy makes it difficult for them to assume a main role in balancing supply and demand. Consequently, it becomes impossible to structure different profiles for the supply, in order to provide effective and efficient responses to the different demand profiles from the AA model.

Planning process and leadership

This section is more directly connected to the operational strategies adopted for the implementation of the AA model. Thus, in this dimension we seek to characterize the plans adopted; the engagement of the actors involved in the implementation process; the identification of the opinion leaders and of the leaders who were formally indicated, internally, for implementation; and the presence of supporters or external agents of change.

Results showed that the implementation of the AA model, in regard to the management of the service, had to deal with more obstacles than facilitators. Managers used the SWOT matrix to analyze and conduct strategies to implement the model. Based on this matrix, it was possible to ascertain that the strengths for the implementation of the AA model were less evident, while its weaknesses increased. Managers pointed out that institutional support dwindled during the process of AA implementation.

It also became more difficult to reduce the backlog and stabilize the schedule regarding open spots. According to managers, some shortcomings were overcome, such as the lack of theoretical-practical knowledge for the implementation of the AA model. However, some of these shortcomings remained. It is worth mentioning, especially, problems related to the physical and operational infrastructure, such as the lack of digital equipment and technologies (electronic medical records and computers) to ensure fast attention and communication between FHS teams.

Regarding "opportunities", managers also believe they found barriers, such as difficulties using instruments for planning (such as the PDSA matrix and the PLANIFICA) to organize the AA model. The "threats" listed in the SWOT matrix to the AA implementation are associated with issues related to problem-solving capabilities and longitudinal care, elements that, according to them, were strongly prejudiced by the AA model.

Other threats include the lack of clinical protocols for nurses, incipient care flowcharts, low quality monitoring strategies, etc. Considering the analysis of the managers, the "sister team" and "interconsultation" strategies worked as facilitators for the implementation of the AA model.

DISCUSSION

Monitoring and analyzing the implementation process of an AA model in PHC units showed that innovative changes in work process of health are complex operations, as they involve new management models and the training of human resources[23], management and reorganization of physical structures[24], training of social actors involved with the innovation[25], changes in operational flows, investment in technological infrastructure, in addition to the creation of spaces where the entire multidisciplinary team can talk and get involved[26]. This includes all its members, namely, community health agents, physicians, nurses, nursing assistants, administrative technicians, coordinators, and management[27].

To implement the new AA model in the PHC, the Municipal Health Secretariat of Curitiba edited the educational booklet "New possibilities of organizing the access and schedule in primary health care"[28], in an attempt to give managers and health workers the instruments to expand access, step by step. Nevertheless, this strategy proved to

be ineffective, as it was based on the belief that, as soon as people gained knowledge about what needs to be done, they would magically change all the characteristics of a practice that has been in place for many years in a service or institution[29].

The path for effective change must be paved. To do so, institutional culture has to be revisited, so attitudes and values can be affected, and finally, reflected in new behavior[30]. There are different types of processes of change, but almost all of them require involving actors and managers in a process related to understanding the need for changing what has been frozen in place as an institutional habit. These processes also involve a transition that takes its actors through a planning stage, towards a stabilization of what is new in the institution, freezing, as it were, it in place[6]. These changes require health teams to be improved by permanent education, sharing responsibilities, motivation, ethics, and professional commitment, so health services provided have quality[31].

Therefore, implementing the AA model requires changing a hegemonic culture of work in the regions attended, independence, and fragmentation, a work culture focused on an integrated network that involves professionals, users, and family in the production of health. Therefore, the AA implementation requires profound changes in the organizations[13].

It is worth having in mind that the most important pieces of data to organize access are: health care experience and satisfaction of people and families; scheduling practices; waiting time; time cycles in attention; and experience with alternative models of care such as distance health care[4]. The same author[4] stresses how important it is to define metrics for these indicators, but the establishment of patterns is not a common practice to measure access to health services. Still, once some indicators have been established, they must be monitored periodically[26].

The greatest difficulty in the AA model is the urgent need to carry out actions that can increase the rationality of the demand, such as: adjusting the number of people; elaborating and implementing evidence-based clinical directives; classifying the risk of people with acute health issues; stratifying the risk of people with non-acute chronic conditions; implement quaternary prevention; identifying and adequately managing hyper-users; and reducing absenteeism[5].

Another issue that must be remembered is the need to increase the clinical autonomy and problem-solving capabilities of the nurses in the AA model. A study[31] showed that, in 2016, before the implementation of the AA model,127,550 consultations were carried out by nurses. In 2019, after the implementation, there were 182,001 consultations of this type. In 2016 (without an AA model), the percentage of nursing consultations that dealt with the issues by themselves was 38.2%, while in 2019 (after the AA model was implemented), this percentage grew to 52.8%, in a statistically significant change. This represents an increment of 11.9% in this statistic.

The perception of the professionals is in line with a study[3] according to which factors that lead to failure in the implementation of AA model include abrupt shocks in the relationships between supply/demand; difficulties eliminating the backlog; trouble rationalizing the demand; the different types of demands from different vulnerable populations; resistance to change; lack of leadership from health workers; and others.

When managers pointed out the "lack of theoretical knowledge about the AA model" as a shortcoming, they showed that they do not know which changes must be made in the work process to adjust supply and demand in the services, in the scope of PHC, to implement the AA model.

It is worth noting that, as all scientific studies, this research had to deal with challenges and limitations. One of these challenges is related to the fact that, in the very beginning, it was necessary to change data collection, which, during the pandemic, was conducted remotely. This could decrease the quality of the information found. Another limitation was the impossibility of training the professionals as expected, which may have had an influence on the changes necessary to the work process.

FINAL CONSIDERATIONS

The social, structural, and professional contexts of the health sector in the city of São Paulo were obstacles to the implementation of the AA model. Regarding social context, the preference of users for exclusive face-to-face care makes it harder to implement strategies such as distance care or distance monitoring, which are important to expand access. Still in the social context, issues include a health system that revolves around physicians, hyper-users, and the bureaucracy behind the health care networks in the city. From a structural perspective, issues include the lack of physical structure in the health units for actions such as interconsultations or interconnected electronic records, and the number of registered users, which is much higher than the recommended. In the professional context, the turnover of professionals is very high in general, there is little clinical qualification, and health teams can seldom solve the issues at hand.

Another obstacle to the implementation is related to the theoretical-operational characteristics of the AA model, which requires "local" autonomy to "plan necessities" and a "regular adjustment of supply and demand". Although this study was conducted in a region where the team is quite organized in terms of information systems in health, all cities follow the rules of the Ministry of Health, as a result of SUS.

Another barrier to this model is the "Collaborative and integrated practice" of health teams, since, despite the fact we do have a team working in the PHC, nurses and other members of the team have little autonomy and ability to solve the issues at hand. This is due to social and professional formation pacts that ensure physicians have the main role in health.

The implementation research was a promising strategy to monitor and understand issues related to the incorporation of evidence and practical innovation in health services. This methodology presupposes that academia and health services work together, in a cycle that starts with the identification of gaps and/or problem-situations in the practice of these services. This partnership followed the implementation of the AA model, helped getting to know and understand the context in which the innovation was implemented, planning strategies, and procedures used for its implementation, as well as its obstacles and facilitators.

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