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Research Article

Methods and Barriers to the Prescription of Physical Activity to Patients with Chronic Illness: The Viewpoint of General Practitioners

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Abstract

Introduction: As a result of recent legislation designed to modernize the healthcare system (2016 French Healthcare Act and its Implementing Decree), General Practitioners (GP) in France can now prescribe Adapted Physical Activity (APA) to patients with a long-term illness.

Purpose of Research: To understand and explain the obstacles that physicians and their patients still encounter, thereby hindering the accessibility and effectiveness of APA, we carried out a meta-analysis of 22 French medical theses defended between 2016 and 2020.

Results: Despite the new legislation, very few general GP prescribed APA during the period we studied. Lack of time during consultations, lack of relevant training, lack of knowledge about where to send patients for APA, and mistrust of APA providers appeared to be the main obstacles to prescribing APA as a non-drug therapy. The GP's own lifestyle, the nature of the GP patient relationship, and the GP's perception of the patient's attitude to sport also seemed to influence the decision to prescribe APA.

Conclusion: Scant attention has been paid to GP' viewpoint, either in the scientific literature or in recent policies regarding the implementation of APA prescribing in France. This meta-analysis points to a need for more research and for public policies that consider the perspectives of these prescribing physicians and their relationships with their patients.

Keywords: Prescription of physical activity, Chronic illness, Long-term illness, General practitioners

Introduction

Even since Juvenal penned his Satires between the 1st and 2nd centuries AD, containing the oft-quoted aphorism "*Mens sana in corpore sano*" (literally: "A healthy mind in a healthy body"), many philosophers and doctors have portrayed health-promoting behaviors as key to achieving a state of wellbeing. One of the first medical theses on this theme in France dates to 1723, when Nicolas Andry de Boisregard defended a thesis entitled "*Is moderate exercise the best way to maintain health*?". In this thesis, he stated that:

"*Of all the means proper to remove, and even to cure, a great number of infirmities, to which the human body is subject, there is none which does not yield to exercise. (…) Nothing, therefore, is more beneficial to health than moderate exercise; but this exercise, which must be proportionate to age, temperament, and sex, must be placed in a certain time, and not pass a certain measure*" [1].

The links between physical activity and health are now strongly supported by abundant research across different scientific fields.

Many studies, both national and international, have shown the benefits of physical exercise, be it physical activity or sport in primary prevention, or Adapted Physical Activity (APA) in secondary or tertiary prevention [2]. For example, in a review of 174 articles on physical activity and its impact on the main chronic diseases, Kyu found reductions in prevalence of 14% for breast cancer, 21% for colon cancer, 25% for diabetes and 25% for heart disease, as well as a 26% reduction in the risk of stroke [3]. Several studies have also highlighted the dangers of a sedentary lifestyle, concluding that physical inactivity kills, while exercise protects healthy bodies from disease [4]. Within the past two decades, these studies have informed several international reports setting out public health recommendations, including ones by the European Commission [5] and the World Health Organization [6-8]. In France, it was in 2011 that the High Authority for Health (HAS) recognized sport as a non-drug therapy. A year later, public policies were put in place, with the launch in October 2012 of the French Government's National Sport Health Wellbeing Plan promoting physical activity for everyone and across all ages, with the twin goals of "*increasing the use of non-drug therapy and developing the recommendation of physical and sporting activities by doctors and other health professionals*" [9]. A subsequent intermenstrual circular published in December of that year required the country's regional health agencies (ARS) and Regional Departments for Youth, Engagement and Sports (DRAJES) to work with local stakeholders to set up and manage regional plans for children and young people, people living with disabilities and/or chronic illnesses, seniors, and socially vulnerable people.

In November 2012, an innovative and ambitious program was developed and tested in Strasbourg. The objective of Sport-Health on Prescription was to promote the practice of regular, supervised, and moderate physical activity adapted to the state of health of chronically ill people, with the aim of reducing social and regional health inequalities. It was in this context that Act No. 2016-41 of January 26,2016 on the Modernization of our Healthcare System was passed, implemented by Decree No. 2016-1990 of 30 December 2016 regarding the Conditions for Dispensing Adapted Physical Activity Prescribed to Patients with Long-Term Illness by Their Treating Physician [10,11]. Since then, General Practitioners (GP) have been able to prescribe patients with a Long-Term Illness (LTI) physical activity adapted to their pathology, physical abilities, and medical risk. However, several biomedical, psychological, and sociological studies have highlighted continuing obstacles to APA prescription, though without reaching any general conclusions. It therefore seemed important to carry out a systematic review of the literature on this subject.

The present study was the result of collaboration between researchers who have been involved in the Prescription of Physical Activity in the Care Pathways of Aging People (PRESCAPP) research program since 2020. As part of this program, we were keen to analyze the experience of the various actors, namely older people with an LTI who have been prescribed APA, GP (both prescribers and nonprescribers), and healthcare professionals providing APA. More specifically, we sought to highlight the social inequalities in health that may influence the prescribing of APA, or be exacerbated or reduced by it, according to personal situations and local conditions.

Materials and Methods

Given the increasing number of studies on APA prescription, we decided to limit our field of investigation to medical theses defended in France since the Healthcare Act was passed in 2016, paying particular attention to the challenges and barriers faced by GP. For our meta-analysis, we applied six inclusion criteria:

a) Medical thesis

b) Defended between 2016 and 2020

c) Relating to APA prescription

d) For adults with chronic illnesses

e) By GP

f) Practicing in France

We therefore excluded all theses from other scientific fields (sports sciences, psychology, sociology, etc.) and/or published prior to 2016, relating to sport in general and/or unrelated to APA, as well as theses centered on patients or carried out among specific populations (pregnant women, children, adolescents, high-level athletes, etc.) or any type of physician other than GP (interns, sports physicians, cardiologists, diabetologists, physiotherapists, etc.). Of the 83 medical theses that emerged following this selection process, we excluded those (44) that focused on patients' views. For feasibility reasons, we only retained 22 of the 39 theses that met all our inclusion criteria (Figure 1).

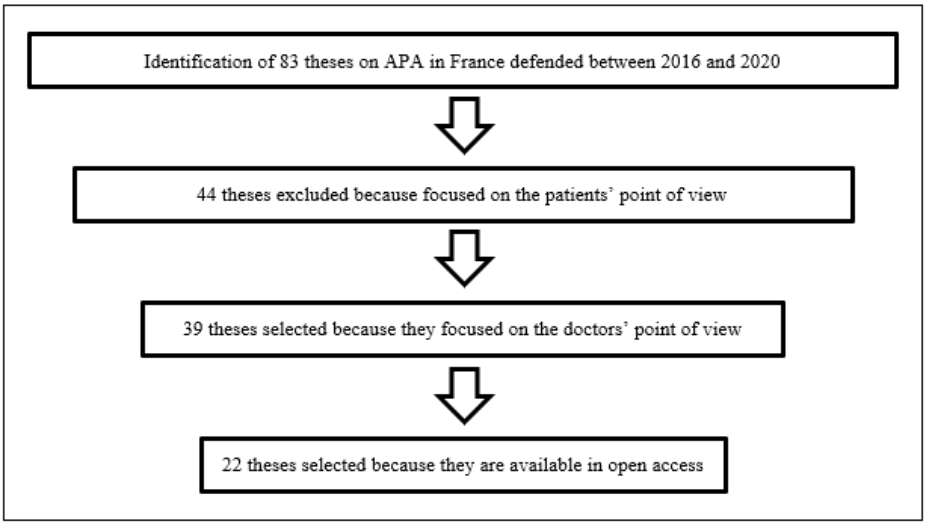

Figure 1 : Medical thesis selection process.

These were available in open access on bibliographic resource sites such as the Sudoc French university documentation system and the HAL open-access archive. Among the 22 theses we selected, 12 reported questionnaire-based quantitative surveys, and 10 reported qualitative surveys based on semi structured interviews. The 12 quantitative theses concerned a total of 1555 GP from all over mainland France, as well as from overseas territories. Response rates to the questionnaires ranged from 4.4% (CHAPUIS) to 75.5% (CARIMALO), with a mean rate of 36.8%. Concerning the qualitative theses, interviews lasted between 12 (BILY) and 74 (HUET) minutes, and concerned a total of 177 GP, with a minimum of 9 (DE LARQUIER) and a maximum of 26 (BILY) GP interviewed per study.

We collated data yielded by 22 theses (Table 1). The quantitative and qualitative results of our meta-analysis are set out in in the following sections, providing an overview of the situation and current state of play for APA from the perspective of the GP surveyed or interviewed in the theses.

Table 1: Medical theses retained for the meta-analysis.

Author(s)	Year	Place of Study	Thesis Title
Frédérique Bily	2016	Alpes-Maritimes	Prescription of physical activity for patients with cardiovascular risk factors: qualitative survey of general practitioners in the Alpes-Maritimes département.
Charles Lesage	2016	Indre-et-Loire	Factors of resistance to the prescription of physical activity: survey of general practitioners in Indre-et-Loire.
Julie Pitarch	2016	Biarritz	Determinants of the prescription of physical activity: qualitative study among 21 doctors participating in the Sport-Santé experiment on prescribing conducted in Biarritz.
Emeline Barthel	2017	Vosges	Survey of general practitioners in the Vosges département regarding the prescription of physical activity.
Edouard Chapuis	2017	Bourgogne Franche-Comté	Barriers to the prescription of physical activity for coronary patients by general practitioners and influence on patients.
Elise Chevallier & Julie Bultez	2017	Rhône-Alpes	Feelings of treating physicians in the Rhône-Alpes département about prescribing adapted physical activity for their patients.
Julien Cournet	2017	Aquitaine	The prescription of physical activity by general medicine internship supervisors in Aquitaine: what is it in reality?
Célia Gaume	2017	Hérault	Determinants of the written prescription of physical activity by general practitioners in Hérault in 2016. A qualitative study.
Mathilde Cottel	2018	Picardie	Assessment of impact on quality of life of patients with chronic pathologies after enrolment in the Picardie en Forme sport-health network and role of the general practitioner.
Célie Crichen	2018	Ille-et-Vilaine & Morbihan	Inventory of practices and opinions on the promotion and prescription of physical activity for the elderly in primary care.
Thomas Perwez	2018	Picardie	Prescription of physical activity in general medicine: point of view of general practitioners in Picardy.
Rucar Benjamin	2018	France	Sport-health on prescription: analysis of feelings and obstacles concerning APA prescription for patients with LTIs among general practitioners who have been trained to prescribe it.

Antoine Ryckembusch & Ségolène Terlain	2018	Maine-et-Loire, Sarthe & Mayenne	The prescription of adapted physical activity for patients with long-term illnesses: what do general practitioners think?
Ophélie Bugeaud	2019	Limousin	Sport-health on prescription: example of the Limousin Sport-Health initiative. Assessment of the impact of the Limousin Sport-Health facilities on physical inactivity and sedentary lifestyle.
Lucie Dubois	2019	Caen	Factors limiting sport on prescription in Caen and areas of improvement: qualitative study among 13 general practitioners.
Anne-Laure Edouard	2019	Martigues	The promotion of physical activity in the Martigues area.
Pierre Lecarpentier	2019	Basque Country	Physical activity for health: inventory of prescriptions by general practitioners in the Basque Country since the passing of the French Healthcare Act.
Thomas Lecoq	2019	Le Havre	Advice and prescription of physical activity for patients with LTIs: a qualitative study among 12 general practitioners in the Le Havre area.
Pierre-Olivier Porte	2019	Occitania	Prescription of physical activity by general practitioners for cancer patients: what are the obstacles in Occitania?
Emilie Carimalo	2020	Brittany	Impact of general practitioners' participation in a medical quality group on their prescription of adapted physical activity: before/after study.
Marjorie Huet	2020	Réunion Island	The promotion of physical activity in general practice. Qualitative study of the representations and practices of general practitioners on Reunion Island.
Dorian De Larquier	2020	Occitania	Qualitative analysis of the determinants of the development of APA prescription by general practitioners following the implementation of the Bougez sur Prescription scheme in Occitania.

Results

Links Between Physicians' Profiles and their Prescribing of Adapted Physical Activity

Regarding place of practice, some theses highlighted considerable inequalities between urban and rural settings. Some rural areas have become healthcare deserts, hindering the prescription of APA. Respondents working in rural areas seemed overwhelmed and complained that very few local sport-health structures were suitable for patients with chronic diseases (DE LARQUIER). A 32-year-old GP working in southwest France replied, "*I think that when there are no more healthcare deserts and there are enough of us to manage general medicine, we may well [start prescribing APA]*" (DE LARQUIER, p. 89). GP practicing in urban (25%) or semi-urban (21.7%) areas were statistically more supportive of APA and more open to prescribing it than those in rural (11.4%) areas (CARIMALO).

Our analysis also highlighted a link between the GP' own level of physical activity and the frequency with which they used advice about physical activity as a means of prevention. According to many of the GP who were interviewed, doctors who practice physical activity are more credible, and their activity can have a ripple effect among their patients (PITARCH, HUET). Motivating patients therefore involves setting them a good example: "*I lost a little weight when I started running. My patients noticed. And that led some to broach the subject, so from that side of things, it was useful to me*" (DUBOIS, p. 33). "*Show them that if doctors engage in physical activity, it may be because they find it beneficial*" (PERVEZ, p. 48). Exemplarity and the caregiver patient relationship of trust seem essential for treatment adherence: "*People also react a lot if they recognize themselves in the person who is in front of them*" (CHEVALLIER & BULTEZ, p. 19). Conversely, inactive doctors may have greater difficulty broaching this subject with their patients (CHEVALLIER & BULTEZ). More than two-thirds of respondents said they followed WHO recommendations and practiced one or more types of physical exercise. However, there were some quite striking variations in this proportion: more than 80% of GP in BARTHEL, between 70% and 80% for CRICHEN, GAUME, and COURNET, 62% for LECARPENTIER, below 40% for LESAGE, and around 20% for BUGEAUD. It should be noted that GP in the Creuse and Corrèze départements not only had the lowest response rates (28.6% and 16.3%), but also the highest levels of physical inactivity: "Among the general practitioners questioned, half of them (80 people, 51%) stated that they had insufficient physical activity with regard to WHO recommendations, and 15% of them were inactive" (BUGEAUD, p. 96).

Physicians' Knowledge of Adapted Physical Activity

In terms of what GP know about APA, respondents mentioned three main sources: basic university education, continuing medical education, and self-education. Although the prescription of physical activity has been part of the program of national classifying tests since 2017, it is still given only the barest mention in the curriculum, be it in the common core of medical studies (2nd cycle) or during internship (3rd cycle). Many respondents complained that they had received highly inadequate university training in APA (BILY, PITARCH). According to one of them working in the Alpes-Maritimes département, "Many report their lack of technical knowledge when it comes to prescribing their patients adapted physical activity" (BILY, p. 55). Another 58-year-old GP interviewed in the same study explained "*I think it's insufficiently taught. It's supposed to be known; it is supposed to be a normal principle. As for education, doctors only learn about it if they happen to see something on television. It's not the political authorities and certainly not the faculty*" (BILY, p. 55). The same kinds of comments were reported in PITARCH (p. 29): "*It's a pity that APA prescription is not yet covered either in initial medical education or in continuing education*".

The GP questioned in the various studies called for appropriate training in APA prescription as part of their continuing medical education. In addition, they said that training in APA should be included in medical studies. One of the GP explained that "*My APA*

prescribing is totally empirical, mostly in the form of advice and based mainly on my personal experience: scientific articles of the sport and life type, running magazines" (PITARCH, p. 29). LESAGE (p. 50) reported a statistically significant link between the doctors trained in sports medicine and issuing of a medical prescription variables. Most untrained GP did not produce a written prescription at the end of their consultation. According to DE LARQUIER (p. 77), "*Doctors who have not received clear information on APA and who have not been properly made aware of the existence of the Bouger Sur Ordonnance (BSO) system and how it operates find it difficult to modify their prescriptions for physical activity and often rely on simple oral advice, because they do not know how to prescribe it in writing*". It also seems difficult for some of them to differentiate between the notions of sport in general and APA. Conversely, after specific training, the majority (64%) of GP questioned by RUCAR felt able to prescribe APA to their patients.

As for training in APA, the vast majority (more than 90%) of GP thought it should be included in the curriculum (CHEVALLIER & BULTEZ, PITARCH), almost half (45-50%) thought it should be incorporated into face-to-face continuing medical education (LESAGE, EDOUARD, DE LARQUIER), and just under a third (27%) felt it should be organized in the form of seminars with specialists in APA (LESAGE). Alternative proposals identified in other studies included the creation of online courses (23.4%; LESAGE), the establishment of a reference framework to help with written prescriptions (BARTHEL, LESAGE, RUCAR), and the creation of an IT tool connected to existing medical software (RUCAR). In addition, 21% of GP wanted to be given a prescription template, to simplify the act of prescribing as much as possible and relieve them of an additional administrative burden (BARTHEL). Finally, 75.6% of GP said they would like to know more about what was on offer locally in terms of sport-health programs (CRICHEN). According to one GP interviewed in the Occitania region: "*We did not have much information about it, so although we knew it existed, we had no idea how to send our patients there, let alone how to prescribe it*" (DE LARQUIER, p. 77).

Methods for Prescribing Adapted Physical Activity

According to the 2016 Implementing Decree, the recognition of an LTI constitutes the starting point for prescribing APA. A large majority of respondents reported that they offered APA to patients with cardiovascular risks owing to diabetes, hypertension and obesity, as well as to patients with chronic lower back pain, anxiety and depressive disorders who had a very sedentary lifestyle (CHEVALLIER & BULTEZ, p. 19). The vast majority of GP believed that they had a central role to play in the promotion and prescription of APA. This view was shared by all the GP questioned by DUBOIS, 92.5% of those questioned by LESAGE, and 84.4% of those questioned by LECARPENTIER. By the same token, BILY, CHEVALLIER, BULTEZ and DUBOIS found that a minority of GP thought this role should be played by other professionals such as sports doctors or sports educators. The importance of promoting APA was acknowledged by most respondents: all the GP in HUET, DUBOIS, BARTHEL and CHAPUIS, 98% in LESAGE, 92% in LECARPENTIER, 85% in RUCAR, and 58% in EDOUARD. However, a minority answered that they were not particularly interested: 13% in EDOUARD, and 2% in LESAGE. Finally, some GP emphasized that APA prescription did not necessarily require a formal framework: "*We ask them to move, we tell them to walk… But it is not necessarily a framed practice*" (RYCKEMBUSCH & TERLAIN, p. 13).

Moreover, the frequency with which respondents broached this topic with their patients was very variable. It was mentioned at each consultation by all the GP in HUET, and the majority of GP in PERWEZ, CRICHEN and GAUME, but far fewer in BARTHEL (23.3%), PORTE (21.3%), EDOUARD (16%), DUBOIS (15.4%), and COURNET (12%). In the majority of cases, it was generally mentioned right at the end of the consultation, after discussing all the other reasons for the consultation (CHEVALLIER & BULTEZ). GP tended to recommend APA orally, instead of producing a written prescription. Oral advice was given by all GP in the studies by PERWEZ, BILY, HUET, EDOUARD, DUBOIS, and BUGEAUD. This was also the case for a large majority in LESAGE (93.1%), LECARPENTIER (96.4%), BARTHEL (96.7%), and CRICHEN (94.6%). Written prescriptions were only used by 20.4% of GP in LECARPENTIER, 18.7% in CARIMALO, 15.4% in DUBOIS, 13% in EDOUARD, 5% in BUGEAUD, 3.2% in CRICHEN, 0.8% in COURNET, and 0% in PERWEZ.

Beyond the WHO recommendations, which frequently featured in the practical advice given by GP, daily walking (classic or Nordic, with or without poles, indoors or in an open space) was by far the most recommended or prescribed activity. This activity was listed in all the prescriptions observed in BILY, HUET and LECOQ, between 93% and 99% of prescriptions in CHAPUIS and CRICHEN, and 47% in COTTEL. In addition, many GP cited the advantages of group activity (RYCKEMBUSCH & TERLAIN, PERWEZ, DUBOIS, BUGEAUD, DE LARQUIER, LECOQ). Some respondents argued that it is needed to strengthen interactions and motivation (RYCKEMBUSCH & TERLAIN, BUGEAUD), constituting a vector of motivation for people remote from the practice (DUBOIS), and allowing patients to socialize more (DE LARQUIER). However, the gaze of others can be off-putting for some patients. A lack of self-esteem and a fear of exhibiting oneself in public may therefore constitute an obstacle to group practice (HUET, PERWEZ, PITARCH). Similarly, feeling physically diminished or having a complex about one's physical appearance can constitute barriers to collective practice: "*Being in a group, for example walking with people who will walk faster. People say 'Yes but I can't, I wouldn't keep up" and "Well, for example, obese people say to me, I'm not going to the swimming pool because I'm too fat*" (DUBOIS, p. 55).

Some of the GP who were interviewed also emphasized the need for a network, to improve patient care. According to PORTE, 18.2% of doctors emphasized the importance of developing networks and structures offering APA. They asked for more APA providers in their local area. In addition, 16.6% wanted to have a list of centers and professionals offering APA so that they would know where to send their patients (p. 71). Then again, the proliferation of health

networks seemed to sow confusion among GP, owing to a lack of clarity about their respective roles (DUBOIS). This is why GP hoped for better communication between professionals in the future, with more feedback (DUBOIS, CHEVALLIER & BULTEZ): "*One of the most important determinants of the development of APA prescription by general practitioners is this new multidisciplinarity that is being created, concerning physical activity. Doctors feel relieved. They trust in the APA providers, and therefore in themselves. They are in favor of greater recognition for APA providers. Doctors talk about the safe transfer of skills*" (DE LARQUIER, p. 113).

Obstacles to the Prescribing of Adapted Physical Activity Intrinsic to Physicians

According to the various studies, the two main obstacles mentioned by GP were lack of time and lack of knowledge of the APA community and sport-health systems. Our analysis showed that the majority of GP felt that the sport-health scheme was useful but too recent, and there were still issues to be resolved, starting with the lack of time for consultations. This was identified as the main obstacle to APA by the majority of GP. As they already have a very heavy workload, with multiple reasons for consultations, GP say they have too little time for training and for discussing APA (BILLY). This problem was mentioned by 66.2% of GP in LESAGE, 57.5% in EDOUARD, and 47.4% in CARIMALO. According to one GP interviewed in the Occitania region: "*I think APA is interesting, it's enriching, but here you have to have time, and it's not part, I think, of the main training topics for general practitioners*" (DE LARQUIER, p. 87).

The second obstacle to APA is a lack of knowledge about it, as well as about local sport-health systems and facilities. This problem was mentioned in practically every thesis, and by the vast majority of GP in BILY (100%), LESAGE (94.6%), and RUCAR (81%). This was also the case for a large majority of GP in CRICHEN (69%), EDOUARD (64.2%), and CHAPUIS (58%). DE LARQUIER concluded that "*there is a flagrant lack of information at present about APA and the new measures, which do not seem to be bringing about any change in general practitioners' prescribing of APA*" (pp. 77- 78). According to the RUCAR study, more than half (51%) of the GP questioned deemed that they had not been sufficiently informed about the legislative provisions regulating the prescription of APA.

Complications caused by APA were sometimes cited as a further barrier to prescription: "*a number of GP we interviewed admitted that they were afraid of prescribing APA to patients with an LTI precisely because they were by definition frailer and/or older*" (RYCKEMBUSCH & TERLAIN, p. 50). The plethora of APA courses, together with issues of patient confidentiality and the absence of a code of medical ethics in this area can also explain the reluctance of certain GP to send their patients to APA providers: "*It is the fear of sending a patient to an unqualified professional and the fear of betraying patient confidentiality*" (RYCKEMBUSCH & TERLAIN, p. 38). Another GP interviewed in the Auvergne-Rhône-Alpes region remarked: "*I need to know who I'm sending them to, because my prescription makes them legally responsible, I cannot send my patients to anyone*" (CHEVALLIER & BULTEZ, p 27).

Conclusion

In many respects, the theses all pointed in the same direction, highlighting a lack of time, a lack of knowledge, and a lack of trust in APA providers as the main barriers and obstacles to prescription. Many GP also argued that representations of medical procedures tend to revolve around drug prescription, constituting a cultural obstacle to the development of so-called *non-drug therapies*. GP' personal practice of physical activity constitutes a lever for APA prescription and a source of motivation for patients. GP' attitudes, and in particular the relationships they have with their patients, also seem to influence engagement in sport-health systems. This implies a need to educate and change the behaviors of patients with LTIs, for example, by providing therapeutic patient education and conducting awareness campaigns as part of primary prevention (Table 2). It is also interesting to note that most GP showed an interest in the creation of a monitoring tool and in particular in improving feedback from APA professionals.

Table 2: Mechanisms and obstacles to the prescription of APA

Pathologies	GP	Mechanisms	Patients	Devices
Long-Term Illness (LTI)	→	Prescription of physical activity	→	APA
Type		Absence of common frame of reference	Health status and physical condition	Accessibility and free provision
	Lack of time and prioritization of drug prescriptions			
Duration		Lack of support	Self-determination and intrinsic motivation	Visibility of sport-health networks
	Lack of knowledge and distrust of APA			
Severity			Sports culture and lifestyle	Training of APA providers
		Lack of assessment tools		
Contraindications	Fear of complications		Social category	
Patient fragility	Loss of motivation due to lack of feedback from APA providers		Therapeutic patient education	
	Lifestyle and personal sporting activity			

The present meta-analysis had several limitations, starting with the representativeness or otherwise of the data in the single-case studies extracted from the theses, which were often characterized by low statistical significance and based on relatively small and unrepresentative samples. We can also hypothesize that the GP who agreed to participate in the various studies cited here were the most favorable to the prescription of APA. The views of GP opposed to APA prescription were therefore given less consideration. There was also a degree of deference or familiarity between the interviewers (interns) and their interviewees (GP who often supervised interns). Then again, it was doubtless this proximity that allowed the interviewers to gain access to this population. We based this meta-analysis on 22 medical theses produced by interns looking at GP' views on APA. Many quantitative data showed clear trends. Supported by excerpts from interviews, they offer an up-to-date overview of APA prescribing in France. To complement these data and look at the issue from a different angle, it would be useful for a new meta-analysis to compare the viewpoints of patients surveyed for other medical theses, to highlight their experiences. It would also be relevant to look at how APA develops in the future. Its development may well have been stalled by the restrictions that were imposed on group activities during the COVID-19 pandemic, but the creation of guidance and management systems for patients with LTIs should allow it to grow more strongly from now on.

Acknowledgement

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Conflict of Interest

None.

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