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Physician's perspective regarding asthma guided self-management: directives or guidance?

Laura May Miles, LLM, LLL^a, Francine M. Ducharme, MD, MSc^{a,b,c} , Johanne Collin, PhD^d, Lucie Blais, PhD^d, Simon L. Bacon, PhD^{e,f}, Kim L. Lavoie, PhD^{e,g}, Martha L. McKinney, MD, MPH^h and Sandra Peláez, PhD^{a,i}

^aClinical Research and Knowledge Transfer Unit on Childhood Asthma, Research Centre, CHU Sainte-Justine, Montreal, Quebec, Canada; ^bDepartment of Pediatrics, University of Montreal, Montreal, Quebec, Canada; ^cDepartment of Social and Preventive Medicine, University of Montreal, Montreal, Quebec, Canada; ^dFaculty of Pharmacy, University of Montreal, Montreal, Quebec, Canada; ^eDepartment of Exercise Science, Concordia University, Montreal, Quebec, Canada; ^fMontreal Behavioural Medicine Centre, CIUSS-NIM, Hôpital du Sacré-Cœur de Montreal, Montreal, Quebec, Canada; ^gDepartment of Psychology, Université du Québec à Montréal, Montreal, Quebec, Canada; ^hDepartment of Pediatrics, University of Montreal, Montreal, Quebec, Canada; ⁱSchool of Kinesiology and Physical Activity Sciences (EKSAP), Faculty of Medicine, University of Montreal, Montreal, Quebec, Canada

ABSTRACT

Introduction: Asthma guided self-management enhances patients' control of their condition under the guidance of the treating physician. The aim of the present study was to understand how physicians perceive, endorse, uptake, and support asthma guided self-management.

Methods: We conducted a secondary supplementary analysis of data originally collected as part of a multicenter collective case study in which physicians treating patients with asthma were interviewed. Using reflective thematic analysis, we aimed to explore physicians' understanding of guided asthma self-management as related to four ideas, namely: (a) understanding of the disease management and treatment goals; (b) defining medical frame and guidance; (c) describing the importance of patient-physician relationship; and (d) implementing asthma guided self-management.

Results: Evidence indicates that physicians perceived optimal guided self-management as related to patients' adherence to physician's instructions and recommendations, supported by the adjustment of prescribed pharmaceutical therapy contingent upon patient's symptoms. Some physicians also perceived behavior change and environmental control along with the medical recommendations. While physicians' perception of asthma and its treatment were aligned with the recommended guidelines—i.e., patient-centered care approach based on guided self-management, the actual guidance offered to patients remained primarily directive and paternalistic. Non-pharmacological approaches, such as exercise, smoking cessation, patient self-monitoring, and self-management supported by education and written self-management plans, were given little consideration in the context of the recommended treatment plan.

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Asthma is a chronic disease requiring long-term management and follow-up (1). *Asthma guided self-management*—the cornerstone for asthma control, empowers patients to take control of their condition under the guidance of their treating physicians (2–4). This approach entails that both physicians and patients agree on the treatment objectives (3,5,6). During this process, and with the support of an education-based strategy, the patients learn to understand and implement the self-management action plan consisting of self-monitoring and self-managing symptoms (e.g., adjustment of medication) (7). The implementation of such an approach has consistently been associated with a decrease in hospitalizations; work and school absenteeism; morbidity and mortality, as well as with improved quality of life (8). Yet, gaps still exist between recommended guidelines and practical application, resulting in significant ongoing, yet preventable morbidity (9,10).

Most studies exploring asthma guided self-management have focused in portraying the patient's perspective. These studies demonstrated that suboptimal asthma management is influenced by patients' beliefs regarding the disease and the medication (e.g., medication is not necessary because their asthma is not serious). These beliefs have been found to be tied to either fear of becoming dependent on medication or experiencing side effects (11,12). Thus, findings across studies seem to indicate that patients with asthma tended to use medicine as a last recourse after having altered the environment (e.g., cleaning the dust), modified their daily activities (e.g., exercising), or having waited for symptoms to disappear (11,13,14). Moreover, in a previous study (14), we found that patients relied more on their own experience regarding asthma self-management than physicians' recommendations. However, patients were receptive to medical instructions when seen by a healthcare professional they trusted, respected, and who communicated effectively. Based

on this evidence, our team identified facilitators and solutions that enhanced physicians' prescription of medication and provision of written self-management plans. While differences across physicians' specialties were observed, the most recurrent facilitator was physicians' behavior (15,16).

Despite the fact that guided self-management might be the best approach to asthma treatment, physicians and patients might not share the same perspective on the approach (17,18). A lack of agreement among interested parts regarding how to implement the treatment may hinder the targeted results. We aimed to extend the current evidence on asthma stakeholders' perspectives regarding guided self-management by exploring physicians' viewpoints. These findings provide a platform to improve guided self-management training for physicians treating asthma.

Methods

Primary data set

Data was originally collected as part of a multicenter mixed methods study in which patients' and physicians' perceptions of barriers and facilitators to optimal asthma management were explored (12,16,19). For this current study, we reanalyzed the interviews conducted with 42 physicians stratified by

specialty (family physicians, pediatricians, emergency physicians, respirologists, and allergists) and with a representation of sex, time elapsed since medical licensing, patient clientele, setting (academic and community), and geographical practice area (city and rural areas). Further details regarding the methodology have been provided previously (16).

The present study

Study design

We conducted a *secondary supplementary analysis* (20). The research question guiding the inquiry was *how do Canadian physicians treating asthma patients address guided asthma self-management in their clinical practice?*

Analytic strategy

Three team members (LMM, FMD, and SP) engaged in a *reflective thematic analysis* (21) inspired by both the research question and a framework previously developed to understanding patients' perspectives of asthma guided self-management (14). This framework proposes that patients' understanding of the disease and the treatment goals are related to patients' self-management behaviors (Figure 1).

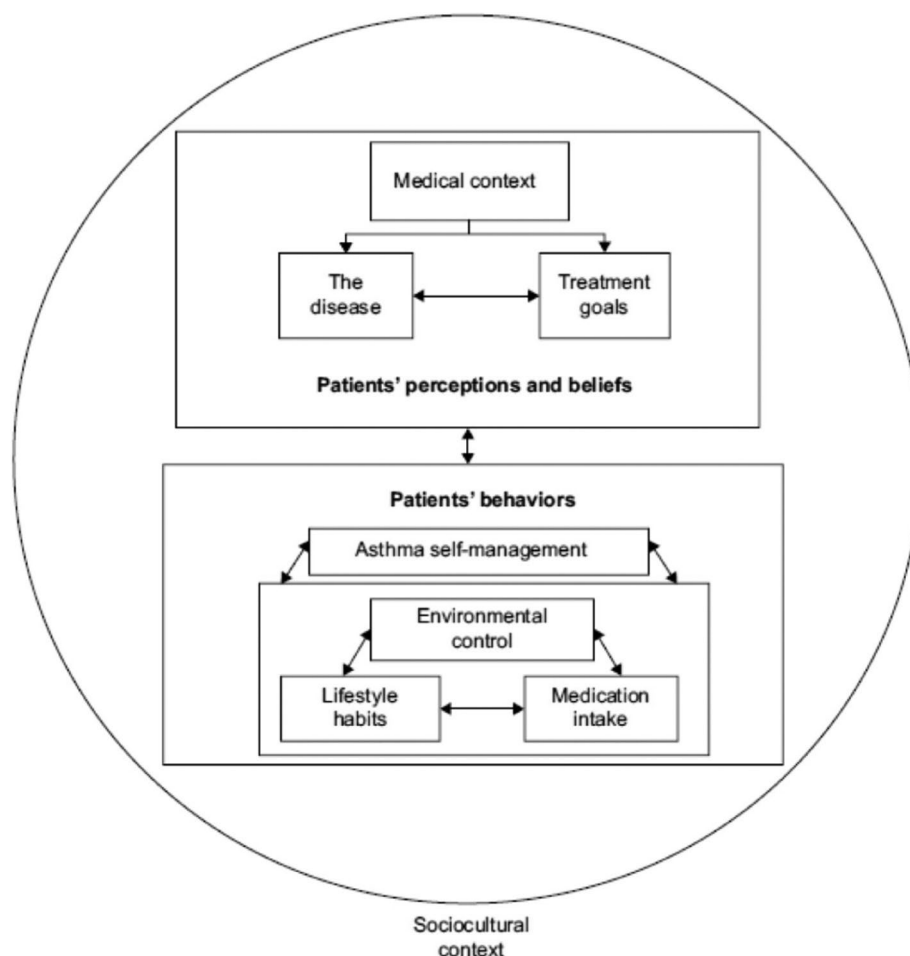


Figure 1. Guided self-management framework.

Results

Factors related to optimal guided asthma self-management as perceived by physicians were grouped into four themes. To support the analysis, we selected exemplary excerpts shared by the participants; their medical specialty was identified.

Understanding of disease management and treatment goals

Physicians agreed that asthma was a chronic disease requiring long-term controller therapy to manage inflammation, exacerbations, and symptoms. In this context, guided asthma self-management should balance a life-long and regular treatment in which no symptoms, activity limitation, exacerbations, or hospitalization were experienced. This was exemplified in the following quote:

I've been at the asthma center for a long time and I've followed many, many asthmatics. I rarely see any side effects when the medications are properly prescribed and used... As long as you check carefully, watch their [referring to youth] growth, and you make sure everything else is going fine. I think there are absolutely fantastic medications, [and this is] definitely what asthmatics need to control their disease, to be far out of the emergency room, attending school or daycare, exercising, and carrying out their ordinary life (allergist).

Emergency physicians explained that their primary responsibility was helping the patients to regain symptom control; therefore, discussions with the patient were rarely expected. In this context, patients were referred to family physicians or specialists for further discussion of the treatment goals and implementation.

Defining the medical frame and guidance

According to the participants, optimal guided self-management required that patients followed physicians' instructions and adjusted the prescribed therapy if needed (e.g., prevent symptoms, manage real-life challenges). Physicians, in tandem with allied health professionals, should support the patients by providing recommendations based on the disease status. The physicians explained that information stemming from objective data regarding the disease (e.g., lung function test) enhanced treatment acceptance and implementation. Thus, varied strategies used for medical guidance were offered to support patients regarding medication intake, as these exemplary quotes show:

We have to try to guide patients to comply to treatment (pediatrician).

The most important thing is instructing [patients] on regular use of the medication (allergist).

Prescribe, discuss with patients what they think, and on their preferred modalities (emergency physician).

To a much more limited extent, non-pharmacological recommendations such as health-related behavior change (e.g., smoking cessation) and environmental control (e.g.,

removing dust and carpets) were expected, especially by physicians specialized in allergies, as stated in this quote:

For me "long-term" means "forever." For an asthmatic... if other variables are addressed, if there's an allergen-related problem, like if they have a pet cat, and then they get rid of their pet cat, then they may not need their regular steroid anymore. So that can be reevaluated... Yeah, sometimes we'll start with a bigger dose, and there's room to come down, so I'll do that (allergist).

Of note, while interviewed physicians acknowledged the importance of environmental triggers in asthma control, they admitted not discussing them due to lack of time; therefore, having this purpose in mind, they referred patients to asthma education centers.

Describing the importance of patient-physician relationship

A trust-based patient-physician partnership was perceived to be instrumental in supporting guided-self management. Moreover, patient engagement in the establishment of an implementable treatment plan and targeted goals had a positive effect on patient's confidence in carrying out the treatment. The physicians emphasized that adherence to treatment was supported by the acceptance of discussed management, attendance to medical follow-ups and asthma education sessions, as well as self-monitoring of symptoms.

Because I think it's a way to build significant relationships with someone—which depends on who the other person is, of course... I'm thinking of a woman I saw last week... [I] really needed to display empathy for her situation... so ended up saying: "Well, you know, if he were my child, this is how I would treat him. [I] won her confidence because of the way [I] have spoken to her. That's one technique" (pulmonologist).

Implementing asthma guided self-management

According to these participants, successful guided self-management required physicians to walk the patient through the process. These participants—with the exception of emergency physicians, referred to asthma education as a first-line strategy. Asthma education should include basic pathophysiology of asthma (e.g., recognition of symptoms), medication intake (e.g., instructions on pump use), and self-assessment (e.g., identifying risk factors for exacerbations). Education was meant to address patients' misperceptions on asthma self-management resulting from either prior experiences or unreliable actions that negatively affected patients' adherence, especially following symptom control.

Two other key contributors to successful asthma guided self-management were interprofessional patient management and written self-management plans. Most physicians viewed interprofessional patient management favorably as they acknowledged the richness of having different specialists' (e.g., asthma educators, pharmacists, nurses, respiratory) input. Interprofessional collaboration was brought up to ensure patient care by overcoming the lack of time and resources during medical consultations.

The written self-management plans—either in their standardized version or on a blank sheet, were viewed as an opportunity to deliver personalized treatment communication instructions. Participants mentioned that the written self-management plans provided patients and their families with complete, reliable, specific, and clear guidelines for the chronic and acute management of asthma; therefore, they enhanced patients' autonomy. Consistent with their positioning, a minority of physicians also used the written self-management plan to set instructions regarding medication, with little or no mention of non-pharmacological recommendations. Despite their positive views, most physicians relied on oral recommendations, along with written standard drug prescriptions—the latter perceived as acceptable replacement for written self-management plans.

Three main obstacles to the implementation and provision of standardized written self-management plan forms were raised by these physicians. First, the length, amount of information, and complexity of the available forms were perceived as deterrents for their use. Second, physicians reported not having time to dedicate to familiarize themselves with the standardized written self-management plans, particularly when asthma management did not represent the bulk of their practice. Third, practical issues, such as a lack of availability of the actual written plan in their work setting or their exclusive availability as paper rather than electronic versions, contributed to the paperwork saturation. The following quote illustrates the ideas discussed concerning the usefulness of a written action plan:

If a mom needs to know what to do—because mothers do panic a lot... she needs something concrete, because... when she is worried, she is less lucid. So, having written instructions help because they bring the mom back to a more intellectual way of thinking. As the [written self-management plan] removes the confusion, it becomes a very precious tool (allergist).

Discussion

In line with national and international guidelines, physicians endorsed asthma guided self-management as a form of patient self-assessment following physician's recommendations. Asthma medical guidance provided by physicians was mostly centered on medication and little attention was given to non-pharmacological recommendations. While the importance of a comprehensive medical consultation in which physicians' guidance and patients' self-management was discussed, the expectations mostly revolved around the implementation of and adherence to the prescribed plan. Furthermore, even when asthma education, interprofessional management, and patient engagement were viewed as cardinal elements, only a few physicians acknowledged them in the written self-management plan. Thus, physicians tended to refer to asthma self-management as a guided process; but instead, they were more prone to implement a directive and paternalistic treatment approach.

Irrespective of the specialty and medical context in which they worked, all physicians agreed that optimal asthma control was the ultimate treatment goal. Physicians justified the importance attributed to medication to the fact that asthma

was a chronic disease requiring long-term treatment. As such, medication adherence, followed by environmental control, were identified as key components of guided self-management, while reference to good health behaviors was rarely discussed. Physicians mentioned that: (a) sharing objective data portraying the evolution of the disease (e.g., improvements in lung function tests); (b) having a good patient-physician relationship; (c) fostering patient's trust in the physician; and (d) offering asthma education played a key role in supporting medication adherence. In line with previous research (22), patient education was endorsed by all physicians; however, the emergency physicians saw other colleagues as being responsible for providing this education.

According to these physicians, asthma control was associated with perceived treatment goals, support for optimal implementation of asthma treatment, and the perception of the role that the patient should play in the process. Furthermore, guided self-management was influenced by patients' understanding of the disease management, of their treatment goals, of the medical frame provided, of the patient-physician relationship, and the implementation of guided self-management. Evidence indicated that while physicians tended to be more direct concerning the recommendations, the patients tended to rely on their own experiences, perceptions and beliefs, which in turn denoted a perceptual gap between the two parts.

In this study, we used the *guided self-management framework*—previously developed to portray patients' perspectives (14), to summarize and describe physicians' perspectives (Please refer to Figure 1). We observed that although the elements brought up by both patients and physicians remained the same, they were approached and discussed differently. The physicians emphasized medication intake as a key component of asthma self-management, devoting less attention to environmental management and health behaviors. In contrast, patients devoted more attention to environmental management and health behaviors and less to medication intake. In the case of patients, they contemplated restricting their activities if that resulted in avoiding medication intake, while physicians considered that carrying out an ordinary life entailed a good quality of life. This discrepancy in the perspectives resulted in: (a) patients relying on personal beliefs regarding the treatment when it came to non-pharmacological treatment options; and (b) physicians not discussing treatment goals with patients, but rather defining them as indicated in the available guidelines. Thus, while the physicians viewed patient engagement as crucial for successful guided self-management, they described it as adhering rigorously to medical recommendations. Despite differences in their views, both physicians and patients agreed that patients' perceptions and beliefs regarding the disease and its treatment influenced patients' treatment adherence which, depending on disease evolution, had an impact on patients' perceptions and beliefs. For this reason, including objective evidence of the status of the disease contributed to convince the patient to adhere to the treatment. This discrepancy in the approach to asthma treatment between physicians and patients has previously been discussed (17).

While international asthma guidelines (23) have acknowledged the benefits of individualized care based on a patient-physician partnership in which patients' concerns and beliefs are addressed and shared decision-making is enhanced; in the context of our study, only a few physicians explicitly referred to this approach (24,25). Randomized control trials (RCTs) have demonstrated significant improvements in patient care attributable to the patient-centered approach, as it relates to a positive stance regarding medical care; emotional health and treatment outcomes (26); increased adherence to treatment (26); and better quality of life (25,27). Shared decision-making should, therefore, be at the forefront of a patient-centered approach of care for all patients, and not as a back-up plan or limited to selected patients (18,28).

Although both RCTs and guidelines consistently recommend the use of a personalized written self-management plan (3,24,29), its use has been seldomly reported in the literature. In our study, we found there to be a large gap between physicians' behaviors and guidelines, as well as between physicians' behaviors and patients' perspectives. In a recent Canadian survey, physicians mentioned that certain actions such as responding to the patients' requests for written self-management plans, providing them with a blank written self-management plan, and offering complementary information would promote the use of a written self-management plan (30).

This study should be interpreted in light of some limitations. Physicians' specific knowledge of optimal management approaches was not formally assessed as the present is a secondary analysis of data that aimed at better understanding medication adherence. As well, our study was limited to the greater Montreal and surrounding areas, which may not be generalizable to other settings where medical care is approached differently. In addition, we recruited a small purposive sample, where no redundancy of item by subgroup of medical context could be achieved. However, the sample recruited was large for a qualitative study ($n=42$) and, as a research team, we engaged in an extensive and in-depth analytical process that warrants the quality of the final results.

Conclusion

Physicians' understanding and comprehension of asthma treatment is aligned with current guidelines and recommendations; nevertheless, when compared to the guidelines, physicians seem to perceive their role to be more directive, paternalistic, and based on limited offer for patient participation. Also, while the importance of patient education, written self-management plans, and patient-physician partnership was acknowledged by the interviewed physicians, it was not necessarily implemented. In sum, these findings suggest that although the bases for personalized care are well-known by physicians, efforts to align their perspectives regarding asthma guided self-management with those from the patients are still needed. In turn, implementing a patient-centered approach may lead to improved medical outcomes.

Declaration of interest and disclosures

The authors disclose no conflicts of interest.

Authors' contributions

FMD conceived the protocol, obtained funding, oversaw the study, and assumes the overall responsibility for it. SLB, KLL, and FMD participated in the conception and design of the study. LMM drafted the manuscript and contributed to data analysis. SLB, KLL, MLM, and FMD provided feedback on data analysis and interpretation. SP contributed to the development of the interview guide, conducted most interviews, analyzed the data, took the leadership in the interpretation of data and the developed the framework. All authors read and approved the final manuscript. We wish to acknowledge the contribution of Ms. Sofianne Gabrielli, MSc for the revision and review of final manuscript.

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ORCID

Francine M. Ducharme  <http://orcid.org/0000-0001-5096-0614>

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