



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Faculty of Science, Medicine and Health - Papers

Faculty of Science, Medicine and Health

2013

Perceptions and practices of adults with asthma: a social cognitive analysis

Kelly L. Andrews

University of Wollongong, kellym@uow.edu.au

Sandra C. Jones

University of Wollongong, sandraj@uow.edu.au

Judy Mullan

University of Wollongong, jmullan@uow.edu.au

Publication Details

Andrews, K. L., Jones, S. C. & Mullan, J. (2013). Perceptions and practices of adults with asthma: a social cognitive analysis. *Journal of Asthma and Allergy Educators*, 4 (2), 49-56.

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

Perceptions and practices of adults with asthma: a social cognitive analysis

Abstract

This article describes a qualitative study that investigated the experiences, attitudes, and opinions of adults with asthma regarding self-managing their disease. Focus groups were conducted with 22 adults living in metropolitan and regional New South Wales, Australia. Key findings were that the perceived stigma of asthma, the need for social support, and the need for "asthma-friendly general practitioners" concerned participants more than formal self-management procedures such as written Asthma Action Plans and medication regimes. Social cognitive theory was used to explain the fluid relationship between persons with asthma, their environment, and their behavior in relation to self-management strategies and in identifying patient-centered approaches. This qualitative research suggests that asthma is viewed as a specific, individualized condition best managed from the perspective of patients' disease experience and environmental context and not one that is appropriately represented by collective, generic self-management recommendations. The authors' findings suggest that self-management outcomes can be improved by recognizing the variance in self-efficacy levels between individuals and tailoring environmental and social support strategies around these.

Keywords

adults, asthma, social, perceptions, cognitive, analysis, practices

Disciplines

Medicine and Health Sciences | Social and Behavioral Sciences

Publication Details

Andrews, K. L., Jones, S. C. & Mullan, J. (2013). Perceptions and practices of adults with asthma: a social cognitive analysis. *Journal of Asthma and Allergy Educators*, 4 (2), 49-56.

Abstract:

This article describes a qualitative study that investigated the experiences, attitudes and opinions of adults with asthma regarding self managing their disease. Focus groups were conducted with 22 adults living in metropolitan and regional New South Wales, Australia. Key findings were that the perceived stigma of asthma, the need for social support and the need for “asthma-friendly general practitioners” concerned participants more than formal self-management procedures such as written Asthma Action Plans and medication regimes. Social cognitive theory was used to explain the fluid relationship between persons with asthma, their environment, and their behavior in relation to self-management strategies and in identifying patient-centered approaches. This qualitative research suggests that asthma is viewed as a specific, individualized condition best managed from the perspective of patients’ disease experience and environmental context and not one that is appropriately represented by collective, generic self-management recommendations. The authors’ findings suggest that self-management outcomes can be improved by recognizing the variance in self-efficacy levels between individuals and tailoring environmental and social support strategies around these.

Key Words:

asthma, self management, focus groups, social cognitive theory, qualitative research

Introduction

Worldwide, asthma affects around 300 million people, ¹ with Australian prevalence rates ranking the third highest behind the United Kingdom and New Zealand ¹. More than 2 million Australians have asthma, a prevalence rate of 10.2% ². People with asthma have poorer quality of life, worse psychological health, and poorer social functioning than those without asthma ³. The financial cost of asthma in Australia is also substantial, with overall expenditure on the disease estimated at \$606 million in 2004–2005 ².

Although there is no cure for asthma, there is a substantial body of evidence to suggest that asthma self-management strategies improve health outcomes for individuals and thus reduce the impact on both primary and tertiary health services ⁴⁻⁶. The question of how, not if, one self-manages becomes the central issue for patients with chronic disease, including asthma, which is typically a life-long and ever-changing condition ⁷.

Guided by the *Asthma Management Handbook* ⁸, asthma self-management programs in Australia deliver information and skills-based education in 3 key areas: (a) having a written Asthma Action Plan, (b) monitoring asthma symptoms, and (c) seeking regular medical review. However, despite best intentions by health professionals to ‘teach’ patients knowledge and skills to enhance self-management outcomes, this has not resulted in long-term behavior change; only 14.4% of Australians reported having a written Asthma Action Plan in 2007/2008 ⁹. There is now wide acceptance that prescriptive and instructional styles of traditional self-management

education ignore other social and psychological elements of learning to live with and effectively managing chronic diseases¹⁰.

It is perhaps not surprising then that the uptake of these aforementioned strategies in Australia remain disturbingly low, despite national recommendations for their use for more than 20 years². Furthermore, there is insufficient evidence to determine the best combination of strategies or preferred delivery settings which produce the greatest benefit¹¹.

Self-management as a concept, even a theory, has enjoyed a variety of meanings and definitions throughout its development and today there is still no universally accepted approach to self-management¹². The term *self-management* is often used interchangeably with 'self-care'¹³⁻¹⁴, or 'coping'¹⁰ where responsibility is placed on the individual to prevent or manage their illness. Kralik and colleagues¹⁰ posit that self-management is both a 'structure' and a 'process', recognizing the skills and task-based elements of patient education and the importance of medication alongside the evolving understanding that patients acquire through processing and reinterpreting the impact of their illness on their day-to-day lives.

Despite evidence that the majority of asthmatic patients presenting in Australian general practices have uncontrolled symptoms and poor skills in self-management^{8,15}, there has been little research on self-management conducted from the perspective of the patient. While there is recognition that improved patient engagement and better integrated health services are needed¹⁶⁻¹⁷, self-management strategies have been largely researched and developed from a medical model¹⁸.

However, Corban and Straus¹⁹ point out that self-management needs to focus on patient perceptions of their chronic condition and, as such, should be tailored around patient-

perceived problems and should recognise that these may change over time. Furthermore, the central position of the patient as an active participant is now cutting through the traditional understanding of self-management approaches. Bodenheimer et al²⁰ state that “self-management education” should complement skills and knowledge-based education and focus on problem solving and decision making, whereas Newman et al²¹ assert that a shift in the perspective of health professionals toward cognitive behavioral techniques, group facilitation, and goal setting is necessary for self-management interventions to become more widely accepted. These approaches are supported by numerous published studies²²⁻²⁵, whereby asthma self-management education (knowledge and skills), which encompass peer and social support, problem-solving skills, and consideration of behavioural change principles (self-efficacy) results in positive asthma outcomes both short term and long term. Overall, an emphasis on understanding the patient perspective is required.

This paper investigates the reality of self-management practices among a group of adults with asthma. Five research objectives guided this exploratory research study:

1. To establish the perceptions held by adults with asthma in relation to taking action regarding ‘self-management’
2. To identify the factors that positively influence self-management practices
3. To identify the factors that negatively influence self-management practices
4. To determine the perceived self-efficacy of adults with asthma in relation to their self-management
5. To examine the factors (wants and needs) likely to effect the future uptake of, and adherence to, asthma self-management strategies

Social cognitive theory (SCT) has been used to inform and explore chronic disease self-management programs¹⁴ and is established as an important theory for understanding not only health behavior change but also the underlying processes within individuals that bring about this change²⁶. SCT posits that individuals learn through watching others and that behavior results from the relationship between 3 main factors: personal, behavioural and environmental²⁷. Briefly, these constructs begin with an individual's *personal/cognitive* characteristics such as the way a person processes and perceives information. The construct of self-efficacy, an individual's confidence or belief in their own capabilities, is central to this element. Next, the *environment* refers to the physical or social factors that are external to the person, but that can have an impact on behavior. For this study, *behavior* refers to the uptake of asthma self-management strategies and recognizes that this can be achieved through observational learning - learning through direct experience, watching others (modeling), or even vicariously (through media exposure). SCT suggests that cognition/personal factors, behavior, and environment influence one another in a fluid and reciprocal manner.

This article will present a social cognitive analysis of the results of the aforementioned study that was designed to describe and clarify the experiences, attitudes, and opinions of adults with asthma regarding self-managing their disease – as it relates specifically to them - and in the context of their daily lives.

Methods

A literature review was conducted to critically review the current evidence for asthma self-management strategies, to document the main components and tools used for self-

management, and to highlight any known facilitators and barriers to the uptake of self-management strategies. A preliminary discussion guide was drafted and pretested in a structured interview with 2 volunteers with asthma (1 male and 1 female). Feedback was used to clarify and rephrase questions. A revised discussion guide was then reviewed by the 2 volunteers and an experienced asthma nurse for refinement. The discussion guide explored questions on 5 core topics from the patient perspective and was guided by the study's research objectives (Table 1).

****Insert Table 1****

Interested subscribers of a regular Web-based asthma newsletter responded to a recruitment email, providing a convenience sample of 22 participants. All participants were sent information in the post prior to the commencement of the focus groups, which included confirmation of the approval by the participating university's human research ethics committee and requested signed consent prior to participation.

Five focus groups were conducted with 22 adults with asthma (10 males and 12 females) to gather qualitative data about the barriers to, and facilitators of, effective self-management. Information was gathered on patients' perspectives about which strategies work and which do not and about prescribed and self-directed self management practices. Focus groups were chosen as an appropriate method of extracting rich qualitative data within and between individual participants and to give the researcher insight into 'what,' 'how', and 'why' participants think the way they do ²⁸.

The focus groups, 2 of which were conducted in the regional area of Wollongong and 3 in the metropolitan city of Sydney (New South Wales), were conducted until data saturation was achieved. Participant numbers ranged from 3 to 8 participants per group and groups ran for approximately 90 minutes. The focus groups were facilitated by the first author, audio recorded, and later transcribed.

Thematic analysis was undertaken by the first author and one other blinded researcher using the research objectives as key headings to structure participant responses. Analyses were compared by an experienced senior researcher (the second author) and discrepancies were discussed and agreed upon by the authors. In order to obtain demographic information, participants were also asked to complete short questionnaires.

Results

Of the 22 participants, 56% had been diagnosed with asthma since childhood. Participants were generally middle aged (55% aged 55+ years) and well educated (39% had tertiary qualifications). Only 35% had a current written Asthma Action Plan. Most (87%) had visited the general practitioner (GP) in the last 12 months to discuss their asthma but fewer (18%) had been hospitalised due to asthma in the same time period.

Perceptions Held by Adults With Asthma in Relation to Taking Action Regarding ‘Self-Management’

When asked to describe the main aims and components of self-management, and without being offered a formal explanation, most participants demonstrated a good understanding of asthma self-management,⁸ which included written Asthma Action Plans and managing triggers and symptoms.

Having an [asthma action] plan and taking medication like preventatives. (Participant, Wollongong 1)

Knowing what your triggers are and knowing the range of medications that are available and what is appropriate in the circumstances. It's having a plan of action to know what your steps should be. (Participant, Sydney 2)

Responses about avoiding triggers evoked discussion about decidedly varied and sometimes contradictory effects (eg, the use of exercise to 'treat' asthma vs exercise-induced asthma attacks). The assertions that triggers were highly personalised introduced a strong theme throughout all of the discussion – that the person with asthma knows best how to deal with the day-to-day circumstances they find themselves in.

I think you need to understand what your triggers are and the correct medication ... there are so many different medications, so many different ways you can treat it. Really understand what kind of an asthmatic *you* are. (Participant, Sydney 2)

Given the variations in severity, differences in triggers, and the unpredictability of attacks, asthma was seen as something quite specific to the individual and difficult to generalise.

Responses generally provided a sense of intense personal responsibility for sound asthma self-management practices; participants did not spontaneously acknowledge that self-management comprises an alliance with GPs.

My action plan is total self-awareness, and I drive what I need, I know what medications, I know [what] the signs are, so I live my own action plan. (Participant, Sydney 2)

I've been completely committed, taking responsibility and they (GPs) want to take responsibility for my asthma ...but she manages it episode by episode, where I'd like deal with the next step myself and if I'm feeling out of control, and I'm the judge of that, I'll come and see you! (Participant, Wollongong 2)

In cases of severe deterioration, participants expressed self-blame.

Just laziness, that's it. I've got no reasons, the doctors are free, the medications are cheap, I've really got no excuse. (Participant, Wollongong 1)

Perceived Self-Efficacy of Adults With Asthma in Relation to Their Self-Management

During the focus group discussions, the profiles of 2 groups emerged (see Figure 1). First, the 'Dutiful Activists' were participants who self-educated by researching new treatments, medications, and local services. They were aware of their triggers and knew how to avoid

them. ‘Dutiful Activists’ were strong advocates for their own cause and, in this sense, had high levels of self-efficacy. They believed they had the skills, knowledge, and confidence to be able to control things on a daily basis and this generally came from their experiences of living with asthma for a long time.

****Insert Figure 1****

I do think I am self-managing... I’ve had it long enough now to know when I need to up the medication or go and seek help. (Participant, Sydney 2)

‘Dutiful Activists’ had a very high perception of their own knowledge and, whilst they were regular visitors to their GPs for symptom or medication review, many were skeptical about the interest and knowledge demonstrated by GPs and maintained that GPs do not fully understand their experience.

I’ve had bad GPs in the past, ones that don’t even look at you, just tick-tick; they don’t even look up from their papers. (Participant, Wollongong 1).

The second group, the “Complacent Bystanders”, conceded that they were in ‘denial’ or accepted that they had asthma but were quite prepared not to take action until it posed a life-threatening state. This group accepted they were susceptible but were not motivated to act to

prevent an attack or manage symptoms on a daily basis; they were reactive rather than proactive patients.

I'm shocking. Dust storm the other day - decided to go to work... exercising, getting off certain foods, personally I haven't bothered. I suppose you wait until you are in a hospital bed thinking you had better do something about it now. (Participant, Wollongong 1)

Sometimes the lifestyle gets a bit lazy and so does the attitude towards preventing the asthma as well. You get complacent and you don't take the medication or you let the medication run down... hence the two times I've been hospitalised. (Participant, Sydney 3)

Negative Influences on Self-Management Practices

Throughout their lived experience with asthma, a range of factors were identified by both 'Dutiful Activists' and 'Complacent Bystanders', which negatively influenced their self-management practices. These were largely out of the individual's control – such as other people's smoking, the weather, the effects of menopause, and the demands of shift work. These external factors, combined with a pattern of unsuccessful or unrewarded attempts at self-management, contributed to periods of learned helplessness and, in turn, low self-efficacy.

The weather has been more erratic in the last couple of years; my asthma has been more erratic too. (Participant, Wollongong 2)

Over the years I have lost a lot of sense of smell...somebody can be near me with really strong perfume and by the time I realise it, I'm already in distress and require assistance.

(Participant, Wollongong 1)

For some, there was a clear sense of despondency as a direct result of experiencing asthma attacks despite adopting positive personal action, or being discharged from hospital without any supported planning; these circumstances reinforced the perception of self-management strategies as being futile.

I would love to have access to the asthma facilitator that taught me in hospital, but then you don't have access once they've finished with you [in hospital]... so you are out and you just don't get the same understanding from your GP. (Participant, Sydney 2).

Similar to the sentiments expressed by 'Dutiful Activists' regarding GPs' knowledge and understanding, GPs were often seen as hindering asthma treatment rather than being facilitators of good health, leading to feelings of cynicism.

I don't find GPs always helpful. You go to a medical centre and you don't seem to get your doctor... you get told he's not on until tomorrow, or he has 20 people waiting for him. So, it is just a tick and flick thing... you are having problems breathing and they don't even check your airflow sometimes. (Participant, Wollongong 1).

The suggestion by GPs to implement generic self-management strategies, such as Asthma Action Plans, was sometimes seen as patronising or condescending – the asthmatic affirming that no one knows their body or their asthma like they do.

Since asthma patients are different from one another, you can't generalise. (Participant, Sydney 3)

Positive Influences on Self-Management Practices

The individual's intimate life experiences with their disease and their experiences within the health system were the dominant influences of positive attitudes and behaviours. In some cases, a profound negative health experience was the trigger for ongoing good management strategies:

I've had asthma attacks that severe I've had to be put on a drip and have the oxygen mask as well as pills... steroids or something....you can die pretty easily from it. (Participant, Wollongong 1)

I don't want to die like my cousin and uncle from an asthma attack. (Participant, Wollongong 2)

Finding an "Asthma Friendly" doctor was also suggested as a facilitator to good management practices.

Once you get a doctor that is a good doctor, someone that takes an interest in you [your asthma] they can follow through and if you can get that, then that really is a plus. (Participant, Wollongong 1)

One of the most important influences on positive self-management was knowing one's triggers, and having a plan for escalating symptoms. Again, a strong sense of personal responsibility was reflected in the participants' responses.

Being aware of your symptoms. (Participant, Sydney 2)

My instinct, how I'm feeling. (Participant, Wollongong 2)

Trust your own knowledge of your body. (Participant, Sydney 1)

Factors Likely to Effect the Future Uptake of and Adherence to Asthma Self-Management Strategies

The concept of 'no one understands an asthmatic but another asthmatic' was further perpetuated by intense feelings of isolation and the perceived public stigma of being a person with asthma. When asked directly, "If there was one thing you would like to enable you to self-manage better, what would it be?" the majority of participants expressed the need for social support such as support groups – clearly a gap in service provision for people with asthma.

I prefer to sit around face to face. I can read, but face to face you can share things and help.

(Participant, Wollongong 1)

Having an open forum with people who are familiar with your condition and can give hints is probably more valuable than the latest medication quite frankly. You don't have this conversation with friends and family...my health, certainly in my workplace and with my friends is a very personal thing and I see it as a weakness so I don't talk about it. (Participant, Sydney 2)

The perceived lack of awareness about asthma held by the general public was concerning for some participants. They expressed anxiety over the possibility of having a severe asthma attack in a public place and bystanders not knowing what to do.

Sometimes I think everyone else needs to be educated as to the needs of an asthmatic...maybe a public campaign to make people more aware. (Participant, Wollongong 2)

Participants also expressed a social stigma around being 'sickly' or 'weak' which affected them either directly (eg, not taking medication in public) or subtly (eg, perpetuating an attitude of cynicism and despair).

Some people even as an adult are embarrassed to admit that they have asthma and don't take their medication when they need to...or try and find somewhere to hide. (Participant, Sydney 1)

Discussion

The present study describes issues pertaining to asthma self-management practices from the perspective of a group of adult patients. How the patient views asthma self-management, the impact of triggers, and the influence of others have been highlighted in a complex array of concerns for asthma patients.

Importantly, within SCT, behavior is influenced by the dynamic relationship that exists between the constructs. Interactions between the person, the environment, and behavior have a continuing and fluid effect on one another. This interaction is known as *reciprocal determinism* and asserts that a change in one has implications for the other ²⁹.

The following sections explore the reciprocal determinism of the SCT constructs as they relate to the results of this study.

The Person and Behavior

This interaction relates to the impact one's thoughts have on the processing of information, the importance given to such information, and how information and experience shapes one's

reality³⁰. This is important as previous studies in asthma self-management have demonstrated that improvements in self-efficacy help to reduce asthma morbidity³¹⁻³³.

Understanding the role of self-efficacy can provide some insight as to different starting points from which to engage asthmatics in self-management techniques. ‘Dutiful Activists’ with higher levels of self-efficacy, similar to the ones in this study, may benefit from opportunities for self-reflection and reinforcement of knowledge and skills. Whereas ‘Complacent Bystanders’, whose low collective efficacy manifested in despondent attitudes and poor self-management behaviors as evidenced by those in this study, may benefit from observational learning to enhance their behavioral capability.

These principles were fundamental to Lorig’s pioneering work in developing Chronic Disease Self-Management Programs⁷. The use of lay tutors and peer educators, for example, built on the concept of learning through vicarious experience and provides an opportunity for self-reflection and learning new skills via modeling and comparison of others - a key factor in developing self-efficacy³⁴. Based on the results of this qualitative study, this style of asthma education and support would be well received amongst adults with asthma.

The Person and Environment

The second interaction of SCT is that between the environment and the person and how these external factors constantly inform and reform a person’s experience. In the present study, indoor and outdoor physical environments affected behavior almost exclusively in relation to managing asthma triggers. Knowledge of how dust mites, cleaning agents, mould, pollen, pollution, and other environmental elements triggered asthma attacks played an important,

yet relatively simple, role in asthma self-management. In other words, learning what triggered or induced asthma attacks was a relatively straightforward concept for individuals to understand and most ('Dutiful Activists') employed strategies to live within the constraints of their asthma triggers. However, the inability of some participants ('Complacent Bystanders') to accept their limited control over aspects of the environment also lead to learned helplessness and lower levels of self-efficacy.

More complex was the makeup of the social environment and the role of social networks in this study. The positive correlation between social support and self-management outcomes for many chronic diseases has been widely documented. For example, Anderson and colleagues³⁵ found that social support was a precursor to self-efficacy and that family support in particular was a strong predictor of successful self-management outcomes. Social support has also been found to be a key factor associated with a more positive attitude, enhanced motivation, and better daily asthma self-care³⁶. The transferrable benefits to participants of this study are no different; the desire for social support (eg, support groups) was clear and could help to curtail the collective sense of isolation. In addition to the potential improvements in self-efficacy by active participation, there is also evidence that mere knowledge of available services can lead to increases in self-efficacy³⁷.

In seeking to identify perceived barriers to self-management practices, the results of this study suggest that the relationship between the person and the social environment is perhaps the strongest influence on reciprocal determinism and central to the formation of experiences, attitudes, and opinions about self-management.

The Environment and Behavior

The final interaction of SCT constructs relates to the interaction between the environment and a person's behavior. Like many health promotion programs and policies which recognize the social determinants of health³⁸, SCT asserts that learning and behavior change need environmental support to be sustained³⁹. Smoking cessation, for example, has been enhanced by a range of environmental measures such as smoke-free public environments and increased taxation³⁸. Two elements of the supportive environment that were identified by this study as being deficient were that of social support (previously discussed) and support from GPs or outpatient services.

Patients' perceptions of the lack of interest and knowledge shown by GPs in their asthma are a notable barrier for successful self-management; indeed, the need for health professionals to engage with patient perspectives, beliefs, and concerns about their asthma has been highlighted in other studies⁴⁰⁻⁴². In an observational study of behaviours and communication skills of GPs, Braido and colleagues have suggested that GPs tend not to encourage patients to express doubts, expectations, or concerns⁴³. Neither do they ask directly – patient responses in a qualitative study⁴⁴ expressed frustration and confusion regarding communicating with their GP. “Clinicians ask about what they believe is relevant and, and patients reveal what they believe the clinician wants to know...”^{44(pg 196)}, leading to a relationship based on assumptions and potentially, inaccurate self-management practices.

One of the most important elements repeatedly highlighted in the current self-management literature is the importance of communication and shared decision making between the

patient and the GP⁴⁵⁻⁴⁸. While there is agreement on the need to improve communication (and a sense of partnership) to enhance health outcomes, the results of this study suggest that the attitudes and perceptions of both parties regarding self-management is an area for further investigation.

GPs are well placed to facilitate a healthy alliance in the education and monitoring of self-management strategies and yet the participants of this study did not view them as a useful resource or constructive part of their healthcare. GPs themselves have also struggled with this concept in Australia where there has been limited success in adopting self-management approaches within general practice or with engaging external services⁴⁹. The relevance of implementing self-management programs in general practice is acknowledged by GPs and many attempts have been made to integrate such programs into Australian general practice and to enhance referral pathways to other providers of self-management support^{42, 49}). Yet there are many barriers, not least of which is the “uneasy fit between the approach required to develop self management skills and the traditional more directive approach of clinical practice”⁴⁹(pg S19).

Finally, SCT accepts the reciprocal influence of the person on the environment and that environment does not serve to modify behavior all of the time. While asthma triggers are a factor in the physical environmental, a person’s response to them is a behavioral one. In the present study, asthma triggers influenced the behavior of the ‘Dutiful Activists’ who took

measures to avoid them, whereas the ‘Complacent Bystanders’ did not; the same stimuli can have a different response in different people, or the same person at different times³⁰.

Limitations

Potential bias is recognized in this study’s recruitment method as the sample’s subscription to the asthma newsletter suggests that they have an interest in learning more about their disease and/or are reasonably engaged with their disease. This may be a particular subset of the asthmatic population compared with adults in the general community.

Conclusion

Previous studies provide evidence that adults with asthma are aware of asthma self-management strategies, yet the uptake of these strategies remains low in Australia. Our study provides insight into the complexities of implementing self-management strategies from the perspective of a group of adults with asthma and within the competing personal, social, and environmental influences of their lives. The findings of this study suggest that 2 methods of enhancing self-management outcomes would be the provision of added support services and the active engagement in self-management principles by GPs and other health professionals. The availability of “asthma friendly” GPs who genuinely engage with their individual story is a matter of concern for many patients, who also appear to perceive a lack of social and community support for adults with asthma. Provision and expansion of these support services has the potential to advance the skill and self-efficacy of adults who are self-managing their asthma.

Further, SCT provides a helpful framework for understanding the reported behavior of a person living with asthma and in identifying different approaches which may better meet the changing needs of the patient. ‘Dutiful Activists’ and ‘Complacent Bystanders’ may benefit from GPs and other health professionals being attentive to the variance in self-efficacy levels and, thus, different starting points for patient education and review (further reinforcing the call for clinicians to better understand the patient perspective). For both ‘Dutiful Activists’ and ‘Complacent Bystanders’, creating and maintaining supportive environments to facilitate good self-management practices is a critical element to support traditional (medical) asthma self-management recommendations.

Acknowledgements

The authors would like to acknowledge the funding support of the Asthma Foundation of NSW and the enthusiasm of the volunteers and participants of this study.

References

1. Masoli M, Fabian D, Holt S, Beasley R. The global burden of asthma: executive summary of the GINA Dissemination Committee Report. *Allergy*. 2004;59:469-478.
2. AIHW. Health care expenditure on cardiovascular diseases 2004–05. Canberra: Australian Institute of Health and Welfare; 2008.
3. Adams R J, Wilson D H, Taylor A W, et al. Psychological factors and asthma quality of life: a population based study *Thorax*. 2004;59:930-935.
4. Gibson PG. Asthma in general practice: action plans or planned actions. *Med. J. Aust.* 1999;171:67.
5. Sawyer S. Action plans, self monitoring and adherence: changing behaviour to promote better self management. *Med. J. Aust.* 2002;177:S72-S74.
6. Lorig K, Sobel D, Steward A, et al. Evidence suggesting that chronic disease self-management can improve health status while reducing hospitalization: a randomized trial. . *Medicare Care*. 1999;37:5-14.
7. Lorig K R, Holman H R. Self Management Education: History, Definition, Outcomes and Mechanisms. *Annals of Behaviour Medicine*. 2003;26(1):1-7.
8. NHMRC. *Asthma Management Handbook 2006*. Melbourne: National Asthma Council Australia;2006.
9. Australian Centre for Asthma Monitoring. *Asthma in Australia 2011*. Canberra: Australian Institute of Health and Welfare;2011.
10. Kralik D, Koch T, Price K, Howard N. Chronic illness self-management: taking action to create order. *Journal of Clinical Nursing*. 2004;13(2):259-267.
11. Jones A, Fay J, Ram F. Primary care based clinics for asthma. *Cochrane Databse System Review*. 2002.
12. Barlow J, Wright C, Sheasby J, Turner A, Hainsworth J. Self management approaches for people with chronic conditions: a review. . *Patient Education and Counselling*. 2002;48(177).
13. Loignon C. Understanding the self-care strategies of patients with asthma. *Patient Education and Counselling*. 2009;75:256-262.
14. Clark NM, Nothwehr F. Self-management of asthma by adult patients. *Patient Educ. Couns.* 1997;32(1):S5-S20.
15. Larson A, Ward J, Ross L, Whyatt D, Weatherston M, Landau L. Impact of structured education and self management on rural asthma outcomes. *Aust. Fam. Physician*. 2010;39(3):141-144.
16. Glasgow NJ, Jeon Y-H, Kraus SG, Pearce-Brown CL. Chronic disease self-management support: the way forward for Australia. *Medical Journal of Australia*. 2008;189 (10 Suppl):S14-S16
17. Jordan JE, Briggs AM, Brand A, C, Osborne RH. Enhancing patient engagement in chronic disease self-management support initiatives in Australia: the need for an integrated approach. *Medical Journal of Australia*. 2008;189 (10 Suppl) S9-S13.
18. Koch T, Jenkin P, Kralik D. Chronic illness self management: locating the self. *Journal of Advanced Nursing*. 2004;48(5):484-492.
19. Corban J, Straus A. *Unending Work and Care: Managing Chronic Illness at Home*. San Fransisco1988.
20. Bodenheimer T, Lorig KR, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. *Journal of the American Medical Association*. 2002;288:2469-2475.
21. Newman S, Steed L, Mullgian K. Self-management interventions for chronic illness. *Lancet*. 2004;363:1523-1537.
22. Tousman S.A, Zeitz H, Bond D, et al. A randomised controlled behaviourla trial of a new adult asthma self management program. *Journal of Asthma & Allergy Educators*. 2011;2:91-96.

23. Caplin D, T. C. A self-management program for adult asthma. III. Maintenance and relapse of skills. *Journal of Asthma*. 2001;38:343-356.
24. Lucas D, Zimmer L, Paul J, et al. Two-year results from the asthma self-management program: long term impact on health care services, costs, functional status and productivity. *Journal of Asthma*. 2001;38:289-297.
25. Kotses H, Bernstein L, Bernstein D, et al. A self- management program for adult asthma. Part I: development and evaluation. *Journal of Allergy Clinical Immunology*. 1995;95:529-540.
26. Clark N.M, Zimmerman B.J. A social cognitive view of self-regulated learning about health. *Health Education Research*. 1990;5(3):371-379.
27. Bandura A. *Social foundations of thought and action: A social cognitive theory*. NJ: Prentice Hall; 1986.
28. Kitzinger J. The methodology of Focus Groups: the importance of interaction between research participants. *Sociol. Health Illn*. 1994;16(1):103-121.
29. Baranowski T, Perry C.L, Parcel G.S. How Individuals, Environments, and Health Behavior Interact: Social Cognitive Theory. In: Glanz K, Rimer B.R, Lewis F.M, eds. *Health Behaviour and Health Education*. San Fransisco: John Wiley & Sons, Inc.; 2002.
30. Jones JW. Personality and epistemology: Cognitive social learning theory as a philosophy of science. *Zygon*. 1989;24(1):23-38.
31. van der Palen J, Klein JJ, Zielhuis GA, Cees LA, van Herwaarden CLA, Seydel ER. Behavioural effect of self-treatment guidelines in a self-management program for adults with asthma. *Patient Education and Counseling*. 2001;43:161-169.
32. Put C, van den Bergh O, Lemaigre V, Demedts D, Verleden G. Evaluation of an individualised asthma programme directed at behavioural change. *Eur. Respir. J*. 2003;21:109-115.
33. Lavoie KL. What is worse for asthma control and quality of life: depressive disorders, anxiety disorders, or both? *Chest*. 2006;130(4):1039-1047.
34. Jones F. Strategies to enhance chronic disease self management: How can we apply this to stroke? *Disabil. Rehabil*. 2006;28(13-14):841-847.
35. Anderson E. S., Woicik J. R., Winett R. A., Williams D. M. Social-cognitive determinants of physical activity : The influence of social support, self-efficacy, outcome expectations, and self-regulation among participants in a church-based health promotion study. *Health Psychol*. 2006;25(4):510-520.
36. Mancuso C.A., Sayles W., Allegrante J.P. Randomized trial of self-management education in asthmatic patients and effects of depressive symptoms. *Ann. Allergy, Asthma Immunol*. 2010;105(1):12-19.
37. DiIorio C, Faherty B, Manteuffel B. Epilepsy self-management: partial replication and extension. . *Res. Nurs. Health*. 1994;17(3):167-174.
38. WHO. *Social determinants of health: the solid facts.*: World Health Organisation;2003.
39. Bandura A. Environmental sustainability by sociocognitive deceleration of population growth. In: P. Schmuck, W. Schultz, eds. *The psychology of sustainable development*. Dordrecht, the Netherlands: Kluwer; 2002.
40. Horne R. Can asthma control be improved by understanding the patient's perspective? *BMC Pulm Med*. 2007;7:8.
41. Adams RJ. Improving health outcomes with better patient understanding and education. *Risk Management and Healthcare Policy*. 2010;3:61-72.
42. Ruffin R E, Wilson D, Southcott A M, Smith B, Adams RJ. A South Australian population survey of the ownership of asthma action plans. *Medical Journal of Australia*. 1999;171:348-351.
43. Braido F, Baiardini I, Menoni S, et al. Asthma Management Failure: A Flaw in Physician's Behaviour or in Patients' Knowledge. *Journal of Asthma*. 2011;48:266-274.
44. Newcomb PA, McGrath KW, Covington JK, Lazarus SC, Janson SL. Barriers to Patient-Clinician Collaboration in Asthma Management: The Patient Experience. *Journal of Asthma*. 2010;47:192-197.

45. Holman H, Lorig K. Patients as partners in managing chronic disease. Partnership is a prerequisite for effective and efficient health care. *British Medical Journal*. 2000;Feb 26(320):526-527.
46. Saba G.W, Wong S.T, Schillinger D. Shared decision making and the experience of partnership in primary care. *The Annals of Family Medicine*. 2006;4:54-62.
47. Shah S, Toelle B C, Sawyer SM, et al. Feasibility study of a communication and education asthma intervention for general practitioners in Australia. *Australian Journal of Primary Health*. 2010;16:75-80.
48. Canonica GW, Baena-Cagnani CE, Blaiss MS, et al. Unmet needs in asthma: Global Asthma Physician and Patient (GAPP) Survey: global adult findings. *Allergy*. 2007;62:668-674.
49. Harris MF, Williams AM, Dennis SM, Zwar NA, Davies GP. Chronic disease self management: implication with and within Australian general practice. *Medical Journal of Australia*. 2008;189(10):S17-S19.

Table 1. Research Objectives and Discussion Guide Constructs

Research Objective	Discussion Guide Concept	Example Questions
To establish the perceptions held by adults with asthma in relation to taking action regarding "self-management"	Explore participants' <i>concept</i> of self-management Explore participants' <i>knowledge</i> of self-management	What do you think are the main aims of "self-management"? What sort of skills or abilities do you need to be able to self-manage your asthma?
To identify the factors that positively influence self-management practices	Explore participants' <i>experience</i> of self-management	Can you tell me any examples or describe any circumstances that demonstrate that your self-management practices have worked or are working? What are the elements or factors that make it easy for you to self-manage?
To identify the factors that negatively influence self-management practices	Explore participants' <i>experience</i> of self-management	What sort of things (practical, financial, etc) inhibit or create a barrier for you to learn how to self-manage? How do you feel self-management is working for you? (successful/not successful)
To determine the perceived self-efficacy of adults with asthma in relation to their self-management	Explore participants' <i>view</i> of self-management	Do you believe that self-management works? What do you believe to be the main implications of self-management for your asthma?
To examine the factors (wants and needs) likely to effect the future uptake of and adherence to asthma self-management strategies	Explore participants' <i>understanding</i> of self-management (including written Asthma Action Plans)	What are the things that you want or need to influence your intentions or future actions? What is it about having a written Asthma Action Plan which you find appealing/off-putting?

Figure 1. Simple Segmentation of Focus Group Participants

