

## **Adult Asthma Self-Management Education**

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Given the surge in chronic diseases during the last 25 years, there is currently a great amount of interest in developing effective chronic disease self-management education programs. In order to develop such programs, one first needs to define self-management. In the context of chronic disease, self-management occurs when a person with chronic disease is actively involved in managing their disease.<sup>1</sup>

Currently, there appears to be two different models of adult asthma self-management education. Traditional models of self-management education are based on goals the teacher defines and frequently are delivered with didactic lectures and handouts.<sup>2-4</sup> The passive learner listens, gains knowledge and then makes behavioral changes. The traditional programs also include instructional components on how to properly use devices, monitor symptoms and use an asthma action plan. Currently, traditional education programs dominate the field of adult asthma self-management education.<sup>5-10</sup> A recent Cochrane review found that traditional adult asthma education programs do have a positive impact on asthma outcomes.<sup>11</sup>

Although the Cochrane review does provide some evidence that traditional asthma self-management education is effective, the news is not all good. According to a recent critical review, almost all asthma self-management education programs are informational but do not address any barriers to self-management.<sup>12</sup> The authors used Barlow's definition of self-management<sup>2</sup> which refers to the individual's ability to manage the symptoms, treatment, physical and psychosocial consequences and life style changes inherent in living with a chronic disease.<sup>1</sup> This definition is consistent with the Stanford model of chronic disease self management education.<sup>3</sup> This model is a learner centered intervention; the participant identifies problems and the teacher facilitates problem-solving. With repetitive practice over several weeks, the participant develops improved self-efficacy for asthma management.

For adults with asthma, there have been only a few learner centered asthma self-management education programs. In a medical practice, Put and colleagues provided one to one cognitive behavioral counseling for adults with asthma.<sup>13</sup> They used cognitive restructuring, problem solving and self-monitoring techniques; three months after the intervention, they found significant improvements in asthma symptoms, peak expiratory flow rates, medication compliance and asthma quality of life.

A learner centered adult asthma self-management education program was developed in Ohio and was described in a series of publications that began in 1995.<sup>14-17</sup> In that program, groups of 15 adults met once a week for seven weeks; each session lasted 75 minutes. The program content addressed the usual asthma education topics but was notable for a strong emphasis on learner centered discussions, social support and problem-solving.<sup>14-15</sup> Six months after the intervention, participants had improvement in asthma knowledge, asthma self-efficacy and depression. Follow-up research identified significant health care benefits up to seven years after the program.<sup>16-17</sup>

Recently, we developed a new adult asthma self-management education program that also is group based and includes multiple week, long duration sessions.<sup>18</sup> One key difference between our program and the Ohio program<sup>14</sup> is that the former features groups approximately half the size of the latter. The smaller group size has allowed us to begin each weekly session with individual status reports (ISR). During the ISR, participants share their experiences from the previous week with the group. The staff encourages

problem solving and social support within the group. Our program leads to significant improvements in asthma knowledge, asthma quality of life and asthma behavior changes.<sup>18</sup>

In summary, most of the published adult asthma education programs do not properly address key self-management issues. Asthma educators should implement theoretically based learner-centered self-management education programs that improve participant self-management skills. These programs should use active learning strategies that focus on the patient's learning goals.

Advice for health care professionals.

- 1) When you read articles about asthma self-management education, critically assess the design, implementation strategies and outcomes of the intervention.
- 2) When you work with your patients, use learner centered communication techniques to facilitate improvement in their self-management skills and their asthma self-efficacy.

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