

The Asheville Project: Participants' Perceptions of Factors Contributing to the Success of a Patient Self- Management Diabetes Program

Daniel G. Garrett and Leslie A. Martin

Objective: To ascertain patients', providers', and managers' perceptions of the factors that contributed to the success of the Asheville Project. *Design:* One-time focus groups of patients and diabetes care providers and individual interviews with managers involved in the project. *Setting:* The City of Asheville and Mission–St. Joseph's Health System (MSJ), Asheville, N.C. *Patients and Other Participants:* Twenty-one patients with diabetes who were employees of the two self-insured employers participating in the Asheville Project; four specially trained pharmacists who provided diabetes-related pharmaceutical care and one diabetes educator, all of whom received reimbursement for their services; six managers employed by the City of Asheville or MSJ who were involved in the project. *Intervention:* A trained facilitator conducted four focus groups and six manager interviews in September 2001. Each session lasted 60 to 90 minutes, and the facilitator used a standard list of open-ended questions. The focus group sessions were recorded for subsequent analysis. *Main Outcome Measures:* Perceptions of focus group participants and managers of how the Asheville Project enabled patients with diabetes to become more responsible and successful in self-managing their condition. *Results:* Focus group participants and managers were enthusiastic about their experiences with the project. Patients valued the relationships they established with their pharmacist or diabetes educator; as a result of these providers' support, patients felt more in control of their lives and were healthier. The waived co-payments for diabetes medications and related supplies was the decisive incentive for getting many patients to enroll in the project. For the providers, the project was a source of professional growth and satisfaction. Managers felt the project helped them fulfill their health care responsibilities to their employees, reduced overall costs, enhanced their organizations' reputations in health care delivery, and resulted in less absenteeism. *Conclusion:* Patients, providers, and managers in the Asheville Project believed that aligned incentives and community-based resources that provide health care services to patients with diabetes offer a practical, patient-empowering, and cost-effective solution to escalating health care costs.

Keywords: Asheville Project, diabetes, disease management, pharmaceutical care, focus groups, patient incentives.

J Am Pharm Assoc. 2003;43:185–90.

The Asheville Project has been providing pharmaceutical care services for employees of the City of Asheville for 6 years^{1,2} and employees of Mission–St. Joseph's Health System (MSJ), also in

Asheville, N.C., for almost 4 years. These services are provided by a network of specially trained pharmacists in the surrounding community who coach patients on how to self-manage their diabetes. Success in this ongoing program is defined as improvement in glycosylated hemoglobin (A1c) concentrations, increased patient satisfaction with pharmacy services, and decreased costs of medical care for patients with diabetes.^{3–5} Co-payments for diabetes medications and related supplies are waived as an incentive for patients to participate.

In this article we report the results of a series of follow-up focus groups and interviews conducted in September 2001. The focus groups consisted of patients participating in the project and the pharmacists and a certified diabetes educator (CDE) who regularly saw these patients in their practices. The individual interviews were conducted with managers employed by the City of Asheville

Received October 23, 2002, and in revised form December 24, 2002. Accepted for publication January 8, 2003.

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and MSJ who were actively involved in the Asheville Project. The purpose of all of these sessions was to identify the factors that participants perceived as having contributed to the project's success. This information, along with data about clinical, patient satisfaction, quality of life, and economic outcomes, is being used to design strategies to improve the Asheville Project and expand it to other communities.

This article is one of four³⁻⁵ focusing on the Asheville Project in this issue of *JAPhA*.

Objectives

Our overall objective was to ascertain patients', providers', and managers' perceptions of the factors that contributed to the success of the Asheville Project.

Our objectives for the patient focus groups were to explore the effectiveness, strengths, and weaknesses of the program; determine why patients participated; and learn about the skills and knowledge patients gained and used and the problems they faced in managing their diabetes.

Our objectives for the provider focus group were to explore the effectiveness, strengths and weaknesses of the program; determine what encouraged the pharmacists and diabetes educator to participate in the program; identify the key skills and knowledge that patients need to successfully manage their diabetes; and identify the issues that the pharmacists and diabetes educator had to address in helping patients manage their diabetes.

Our objectives for the interviews with managers at the City of Asheville and MSJ were to discover what prompted the organizations to undertake the initiative, determine the benefits gained and the associated costs incurred by the organizations, identify key factors contributing to the success of the program, and obtain suggestions for marketing the concept to others.

Methods

Focus Groups

Three of the 4 focus groups included a total of 21 patients with diabetes, and 1 focus group consisted of 4 pharmacists and a CDE.

All focus group members were current participants in the Asheville Project who had been invited randomly from a list of available patients and providers.

Each focus group was designed to be 60 to 90 minutes in length, and each was conducted by an external management consultant (LAM) trained in focus group facilitation.^a A standard list of open-ended questions was used for each focus group. Participants were encouraged to be open and candid in their responses.

Patient Focus Groups

The 21 patients in the focus groups were employees of the City of Asheville or MSJ. The groups were diverse in terms of age, type of diabetes (1 or 2), and treatment options (insulin injections, oral medication, insulin pump, or no medication). All of the patients had completed classes on diabetes management and had met on a regular basis with a pharmacist or a diabetes educator.

Provider Focus Group

The four pharmacists in the provider focus group worked in different settings. One practiced at MSJ and primarily counseled elderly, indigent clients; a second worked at a Veterans Affairs hospital and saw patients as a consultant to a community pharmacy. The third pharmacist owned his own pharmacy, and the last was the community outreach pharmacy manager for MSJ, who also served as a project coordinator for the Asheville Project. The CDE had a nursing background and saw patients on a referral basis. These providers had been with the project since its inception.

Manager Interviews

The six managers from the City of Asheville and MSJ (see Table 1), all of whom were actively involved in the development and ongoing operation of the Asheville Project, were interviewed by the external management consultant. Managers were interviewed individually and asked a standard set of questions that focused on what they had learned from the Asheville Project and elicited their thoughts about how management in other organizations might view a similar undertaking. Managers were encouraged to be open and candid in their responses.

Results

We made audiotapes of the focus groups and interviews and reviewed them for the frequency and intensity (level of emphasis) with which issues were discussed. We compiled themes from the focus groups and interviews and reviewed them to identify areas of consensus.

^aKnapp & Associates International, Inc., a consulting firm providing strategic business and marketing services to organizations, conducted the four focus groups. The firm also conducted the individual manager interviews with the assistance of Daniel Garrett, senior director for medication adherence programs, American Pharmaceutical Association Foundation.

Table 1. Managers Interviewed

Bill Mance, vice president for human resources, Mission-St. Joseph's Health System (MSJ)
J. Paul Martin, MD, medical consultant, MSJ and City of Asheville
John Miall, risk manager, City of Asheville
Brian Moore, vice president for planning, MSJ
Cindy Spillers, director, Diabetes Education Center and outpatient education programs, MSJ
Glenda Trantham, benefits manager, City of Asheville

Patient Focus Groups

Patients' Thoughts About the Asheville Project

Patients were positive about their experiences in the Asheville Project. They viewed the ongoing relationship with and support of the pharmacist or diabetes educator as critical to the success of the program, helping them meet their individual diabetes management goals by providing encouragement, giving them access to new and/or in-depth information, establishing a trusting environment, and instilling a sense of hope that they could control their diabetes. Their meetings with pharmacists varied in frequency from once per month to once every 4 months. These interactions provided opportunities for sustained coaching and monitoring regarding such issues as initial denial of their condition; the careful balancing of nutrition, exercise, and medication needed to successfully manage diabetes; and the effects of lifestyle changes on diabetes management.

Success in managing their diabetes varied among patients. Several said the program "saved my life!" One patient was so successful in managing her diabetes through diet and exercise that she was able to stop taking medication. A number of people reported losing significant amounts of weight and reducing their A1c concentrations. Many patients cited changes in lifestyle and improved quality of life as results of their participation in the program.

We selected the following statements, all made by patients in the focus groups, as representative of group sentiments:

- "The program reminded me of things and reinforced things I knew."
- "When the doctor spoke to me, I was still in denial. The courses helped me get started."
- "I learned to be careful when taking any other medications with the diabetes medication."
- "I heard what could happen to me if I didn't take action."
- "My pharmacist really cares about me. I could call her any time, day or night."
- "The support makes me more confident in my ability to control the diabetes."
- "The fellowship of classes and meeting with the pharmacist encouraged me to try harder."
- "The pharmacist stays up-to-date with new approaches."
- "It is positive reinforcement of good habits since I know I will be meeting with my pharmacist each month."
- "My pharmacist will set reasonable goals for me. It's not more pressure, but more how he can help me succeed."
- "[The program] showed me that I could control the diabetes instead of the disease controlling me!"

Although most patients were satisfied with the program, two expressed disappointment in not being able to conveniently communicate with their pharmacist: One patient mentioned that finding a mutually agreeable time to meet with the pharmacist was difficult; the other found the lack of a quiet space to meet with the pharmacist frustrating. Some patients suggested having additional training workshops to obtain up-to-date information on diabetes

treatments and share experiences with others.

Why Patients Participated in the Asheville Project

Many patients joined the Asheville Project for the cost savings provided by the waived co-payments for diabetes medication and related supplies, as indicated by the following representative statements:

- "I probably wouldn't have signed up without that incentive."
- "Having the help with supplies and expenses has been such a support. The expenses are so high with diabetes. It's hard enough finding out you have the disease!"
- "My decision to enroll in the program was strictly monetary. Between the costs for my son's diabetes and my own, the costs are very high."

Others were frightened by the diagnosis and the prospect of attendant health problems in the future. One patient commented: "I wanted to prevent the side effects of the disease. I don't want to be on kidney dialysis."

Key Skills and Abilities for Managing Diabetes

Focus group patients deemed the following knowledge and skill domains most important for managing diabetes: having a good foundation in nutrition, understanding where blood glucose levels should be, knowing how and when to monitor blood glucose levels, exercising (knowing how often and how long), knowing how to use diabetes-related equipment (e.g., insulin pump), and understanding potential interaction between medications.

Provider Focus Group

Effectiveness, Strengths, and Weaknesses of the Asheville Project

In general, the pharmacists and the diabetes educator felt very positive about the Asheville Project. All were comfortable with counseling patients and felt that the counseling made a difference in helping patients manage their diabetes. Although the group indicated that the training programs they attended did provide the knowledge needed for working individually with patients, they also agreed that they actually learned more about the diabetes care process through working with the patients on an ongoing basis. One pharmacist mentioned that he would have liked to have had a mentor when he began working with individual patients.

By consensus, the providers identified two primary factors that affected patients' success in the program:

- *Whether the individual viewed his or her health as a priority*—The practitioners found that patients who consistently asked questions were more successful in reaching their therapeutic goals. The patient's determination was seen as more important in taking control of his or her diabetes than his or her knowledge and skills.
- *The willingness of the health care professional to take time with patients*—These focus group members agreed that taking time

to work with individual patients helped allay patients' fears, and that this, in turn, had a decisive impact on the patients' ability to manage their disease.

The pharmacists and diabetes educator also noted that participating employees wanted to be referred to as "patients with diabetes," not as "diabetics," because they felt stigmatized by the use of the latter phrase. Such sentiments reinforced the importance of seeing patients as people who understand their disease and demonstrated that helping patients take control of their condition can help them lead quite normal lives.

Why Providers Participated in the Asheville Project

The following statements are representative of the factors providers named as influencing their decision to participate in the Asheville Project:

- "What we know can make a difference. Our profession has become a commodity business. We get paid for counting by fives. The revenue is attached to the commodity and not to what I can impart to patients. This is frustrating. I wanted to get paid for using my head."
- "This [type of service] would let pharmacists work with people. Not all pharmacists want to do more than dispense medicine, but many are more proactive."
- "I knew I needed to be familiar with three main disease states, one of which is diabetes, to move up in my career. These skills make you more marketable."
- "We can earn extra money."

Key Knowledge Areas and Skills for Managing Diabetes

The group identified the following knowledge areas and skills as the most important for patients seeking to manage their diabetes to acquire: basic pathology and physiology of diabetes, medications used to treat the disease and how they work, role of diet and nutrition, self-care and monitoring procedures (e.g., checking feet, eye exams, general care), and impact of regular exercise and healthy diet on treatment and stress management.

Interviews With Managers

Impetus to Undertake the Initiative

The following synopsis from the manager interviews summarizes why the city and MSJ participate in the Asheville Project. In interviews, managers from the City of Asheville and MSJ cited a desire to control costs as a primary reason for their participation. Realizing that it could not control its increasing medical costs with its current strategies, the city originally agreed to participate in the project on a 1-year pilot basis to see whether the program would reduce overall health care costs for participating patients. The city realized significant early cost savings. As a result, 6 months after the program started, the decision was made to begin reimbursing the pharmacists for their services, retroactively as well as from that

point forward.

Having heard about the success of the project, MSJ managers reviewed the data on cost savings. Looking at the long term and assuming that the program would work for MSJ, the hospital made the decision to offer its employees with diabetes similar incentives. The hospital had not expected immediate results from the program but, in fact, realized early savings similar to those realized by the city. An additional motivator for both institutions was the desire to be recognized as leaders in providing important health benefits to the Asheville community and to their employees.

Managers' Perceptions of Program Costs and Benefits

Managers' comments on costs and benefits are summarized as follows:

- Significant resources were required to run the diabetes self-management program (e.g., clerical support for scheduling and billing; computer support to maintain patient databases; training patients; marketing support; remuneration to pharmacists, CDEs, and registered dietitians). However, the benefits derived far outweighed the costs of the program.
- The City of Asheville and MSJ had their reputations enhanced by receiving several national awards for innovation and quality improvement in health care as a result of their participation in the project.
- The employers appreciated the reductions in medical costs achieved by waiving the co-payments for diabetes medications and related supplies and paying for pharmaceutical care services.
- Enhanced patient well-being decreased absenteeism.
- The City of Asheville and MSJ quickly saw an improvement in the quality of life for employees and health care cost savings.
- Employees' sense of hope in controlling their diabetes was increased by having regular contact with the same health care professional.
- Employees valued the support they received throughout the program from the regular group meetings with other patients enrolled in the program and the individual counseling sessions with a pharmacist or CDE.

Suggestions for Marketing and Implementing Similar Programs

The managers interviewed offered the following suggestions to other employers who may be considering implementing a similar program in their community:

- Develop program proposals that clearly state to all stakeholders the benefits of the program that accrue to the employer, patients, physicians, pharmacists, and other providers.
- Provide accurate outcomes data to employers on how the Asheville Project and other such programs improve patient health, reduce absenteeism, and lower overall medical costs.
- Ask employers to send letters to area physicians inviting them to support and participate in the program. To avoid having the physician confuse the program with managed care or feel that it would increase his or her current workload, indicate that the

employer's patient self-management program is designed to complement the physician's current patient care plans. Reassure physicians that they remain in charge of the patient's treatment and that they will receive timely communications from the program pharmacists or diabetes specialists who will be working with their patients. Also, point out that patients who voluntarily enroll in the program will benefit by having the co-payments for their diabetes medication and related supplies waived.

- Establish an effective, simple means of communication among pharmacists, physicians, and other providers.
- Have patients provide their physicians with information about the program.
- Determine how the program is designed to handle variations in patients' basic literacy skills.

Discussion

Based on the findings from the focus groups and interviews of participants in the Asheville Project, it appears that the use of community-based pharmacists to provide health care services to patients with diabetes offers a practical, patient-empowering, and cost-effective solution to the persistent problem of escalating health care costs. It is practical in that it uses untapped resources that are convenient and readily available in all communities. It is empowering because it motivates patients with diabetes to learn more about their condition and to take charge of its treatment. It is cost-effective because it provides people with diabetes with the resources and ongoing support needed to manage their disease and stay healthy.

Our findings are consistent with the insights gained by Wagner et al.⁶ in their review of the use of the Chronic Care Model in intensive quality improvement activities by more than 100 health care organizations. The review supports the growing body of evidence that effective system changes improve chronic care. Wagner and colleagues⁶ stated that the important elements of high-quality care for chronic illness are:

1. That the health system is part of the larger community and there are appropriate links to health care resources in the community.
2. Effective self-management support and links to patient-oriented community resources help to inform patients and families and motivate them to cope with the challenges of living with and treating chronic diseases.
3. Teams of physicians and other health care providers need to have the clinical and behavioral expertise required for productive patient interactions. Guidelines and protocols have a minimal impact unless they are implemented as part of an ongoing system of care that includes education, reminders, specialist involvement, and decision support interventions.
4. An organized and standardized approach to collecting, summarizing, and reviewing individual and aggregate patient data is needed.

The results of our focus groups of patients and providers and interviews with managers involved with the Asheville Project seem to further validate elements of the Chronic Care Model:

1. Managers at the City of Asheville and MSJ indicated that their interest was in improving and coordinating health care for their employees in the community and invested resources in a community-based system.
2. Patients reported that the community-based self-management support they received on an ongoing basis was essential in helping them cope with their diabetes.
3. The pharmacists and diabetes educator reported that it took more than knowledge to care for the patients. Key to success was the opportunity the providers had to work with individual patients on an ongoing basis to answer their questions and support their self-motivated behavior changes. Also, managers pointed out the need to establish communications between physicians and other health care providers and offered specific suggestions on how to invite physician support for the program, outlining the collaborative nature of the patient self-management support system.
4. Managers emphasized the need to collect and summarize data to measure the impact of the Asheville Project in order to determine whether they were getting a positive return on their investment. MSJ made the decision to participate based on the data from the city.

Limitations

Although the number of participants was typical for focus groups, the total numbers of patients (21) and providers (5) were less than we invited. Even though the focus group facilitator was an external management consultant and asked the managers questions designed to uncover problems or concerns with the program, we realize that these managers have achieved recognition for the success of the program, so their perspective may contain some intrinsic bias.

Conclusion

The information obtained from our focus groups and interviews indicates that the Asheville Project provided tangible benefits for patients, providers, and employers. Patients felt more in control of their lives and were healthier. The pharmacists and diabetes educator agreed that the caring and supportive environment fostered by the project made patients comfortable with the process and facilitated their developing the skills necessary to self-manage their diabetes. Managers indicated that the program led to reduced medical costs and lower absenteeism.

Although the focus groups and interviewees cited many factors as contributing to the success of the program, the key factors they all emphasized were the decisive influence the waived co-payments for diabetes medication and related supplies had as an incentive for patients to participate, the opportunity for patients to establish ongoing relationships with caring and knowledgeable

health care professionals, and the improvements in self-management of diabetes brought about by the continuity of seeing the same provider on a regular basis.

This research was sponsored by the American Pharmaceutical Association Foundation and conducted by the authors. Beyond Garrett's employment by the APhA Foundation and Martin's positions as a consultant to Knapp & Associates International, Inc., the firm engaged to conduct the focus groups, the authors declare no conflicts of interest or financial interests in any product or service mentioned in the article, including grants, employment, gifts, stock holdings, or honoraria.

The authors acknowledge the assistance of Samuel H. Kalman in the preparation of this article.

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PHARMACY THROUGH THE AGES

Valuable Drugs Become Panaceas

According to the humoral theory of Hippocrates (400 BC), disease is caused by an imbalance of body fluids. To restore balance, the ancients bled patients or gave them strong emetics, diaphoretics, or laxatives to eliminate excess body fluids. The drugs used became panaceas that were still in use into the 19th century. Panacea was the goddess of medical treatment and the daughter of Asclepius (700 BC), the Greek god of healing.¹

Galen (120-200 AD), an adherent of the humoral theory, promoted the shotgun prescription that blended many plant-based drugs, each attributed with a different property (cold, hot, dry or moist). Without knowing the specific disease involved, the belief was that one of the drugs in the blend would likely treat diseases whose symptoms were opposite of those possessed by the drug.¹

Theriac was a multi-ingredient blend that originally served as a universal antidote for all poisons (130 BC). Galen added more ingredients, bringing the total to 70. Over time, theriac became a therapy for a wide variety of diseases. The theriac used during the Middle Ages and later was a blend of 100 different plant drugs.

Digitalis is an example of a specific drug that became a panacea.² It was clinically investigated over a 10-year period by Withering, who reported in 1785 that it was an effective diuretic for treating dropsy and that it had an effect on the heart. (Dropsy was not really a disease but a symptom associated with diseases of the heart, veins, kidneys, and other regions.) Over a period of 20 years, digitalis was used to treat lung diseases, pulmonary tuberculosis, mental illnesses, typhoid fever, pneumonia, goiter, and many other diseases. With advances in therapeutics, however, the use of digitalis as a panacea gradually diminished. After 1900 digitalis was used in medicine almost exclusively as a heart remedy.³

Penicillin became available on a large scale in 1944 during World War II. Physicians in the armed services observed for the first time the drug's dramatic antibacterial effect in treating battlefield infections. Some U.S. Army physicians then requested that hospital pharmacists incorporate penicillin into cough drops for treating respiratory infections and into dermatologic and other dosage forms. Over the years, penicillin became a panacea and was often used to treat infections against which it proved ineffective.

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