

Anxiety Screening In The Community Pharmacy Setting: A Pilot Study

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Abstract

Community pharmacists are becoming increasingly involved with screening for medical disease states, but they are not routinely involved in screening for mental disorders. The objective of this pilot study was to administer a patient questionnaire at community pharmacies in order to explore the potential role of pharmacists in screening for anxiety and in making various therapeutic interventions. The patient questionnaire, which included a screening tool for anxiety (Beck Anxiety Inventory), was distributed to three community pharmacies in Alabama. One hundred and two patients completed the survey over a two-month period. The results point to several potential roles of community pharmacists in the management of anxiety, including the need to educate anxious patients concerning caffeine use, follow-up on patients with inadequately treated anxiety, and refer anxious patients who had failed to discuss symptoms with their physician or who failed to receive anxiolytic therapy.

Keywords: anxiety, Beck Anxiety Inventory, community pharmacy, disease screening

Introduction

Anxiety is an unpleasant feeling of apprehension or fearful concern. It can be a normal response to a stressful situation or perceived danger, or it can be an excessive, irrational state that indicates a mental disorder. There are a variety of anxiety disorders specified by the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), including panic disorder, generalized anxiety disorder, obsessive-compulsive disorder, posttraumatic stress disorder, social phobia (also known as social anxiety disorder), and others.[1] Anxiety disorders are extremely important to consider because of several factors. First, they are the most common mental illnesses, affecting 9% of the adult population.[2] Next, they are associated with high rates of comorbidity, including other anxiety disorders, depression, substance abuse, and suicidality.[2] Finally, they can cause significant impairment in terms of both quality of life and psychosocial functioning.[3]

Over the years community pharmacists have expanded their roles in patient care, including screening for disease states such as hypertension, diabetes, dyslipidemias, and osteoporosis.[4,5] Unfortunately, community pharmacists are not routinely involved in screening for mental disorders. It has been noted that pharmacists could have a role in managing anxiety by being cognizant of patients' presenting symptoms and being aware of available referral services.[2] Further accentuating the need for pharmacist involvement in the detection and referral of anxiety is that a wide range of medical illnesses and medications, especially prescription, over-the-counter, and herbal stimulants, can cause or exacerbate anxiety.[6]

Our goal was to administer a patient questionnaire at community pharmacies in order to explore the potential role of pharmacists in screening for anxiety and in making various therapeutic interventions. As such, we hoped to demonstrate the feasibility and potential public health value of anxiety screening in the pharmacy setting.

Methods

Because this project was conducted in a community pharmacy setting, the survey instrument had to meet several prerequisites. It had to be self-administered with no verbal instructions, sufficiently brief (e.g., approximately 5 minutes) to encourage participation, and be simply and quickly scored. The Beck Anxiety Inventory (BAI) [7] was chosen as the screening tool. (The BAI

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is a U.S. registered trademark of Harcourt Assessment, Inc./ 19500 Bulverde Road/ San Antonio, TX 78259/ 1-800-211-8378)The BAI is a 21-item self-report questionnaire that focuses on the somatic symptoms of anxiety and was specifically developed to discriminate between anxiety and depression. It has been noted that the BAI may be useful as a screening tool for anxiety in general medical settings.[8] For each item the patient was required to evaluate how much the symptom had affected them within the last week. The point scale for each item is 0 (not at all), 1 (it did not bother me much), 2 (it was very unpleasant, but I could stand it), and 3 (I could barely stand it). The total score is the sum of scores from each item; thus, scores can range from 0-63. The total score represents the degree of anxiety: 0-7 is minimal, 8-15 is mild, 16-25 is moderate, and 26-63 is severe. For the purpose of this study, we defined "significant" anxiety as those scores that indicated the presence of moderate or severe anxiety.

In addition to the BAI portion of the questionnaire, we added questions concerning current medications (i.e., prescription, OTC, and herbal), caffeine consumption, whether the patient discussed the anxiety symptoms with their physician, and whether the patient felt that the anxiety symptoms required treatment. The questionnaires were distributed to two chain pharmacies and one independent pharmacy in different Alabama cities. The timeframe was January-February 2003. Questionnaires were placed in visible areas along with signs containing explanations and instructions. The initial section of the questionnaire was dedicated to statements relating to its purpose, voluntary nature, requirements, and instructions. Requirements included ages ≥ 18 years old, presentation of a prescription at the pharmacy, and completion of only one survey per person. Pharmacists and technicians were asked to encourage patient participation and to collect completed questionnaires. Large manila envelopes were provided for storage of completed forms, which were obtained by the researchers at the conclusion of the study.

The Samford University Institutional Review Board approved the study. Because the questionnaire was completed anonymously, there was no consent form for subjects.

Results

Table 1 below presents the findings from 102 completed questionnaires. The mean BAI score for all patients was 10.3. Approximately one-fourth of patients surveyed scored in the significant anxiety range, with 17 patients scoring in the moderate range and 9 patients scoring in the severe range. Notably, 42% of patients with significant anxiety were not receiving anxiolytic therapy.

Forty-six percent of the patients indicated that they had discussed their symptoms with their physician. Not surprisingly, the mean BAI score for patients who discussed their symptoms with the physician was much higher than that for patients who did not discuss their symptoms with their physician (16.2 vs. 6.7, respectively). The overwhelming majority of patients with significant anxiety discussed their symptoms with their physician (23/26), but there were 15 patients with mild anxiety who had not discussed their symptoms. Nearly one-half of the patients who discussed their anxiety symptoms with their physician were receiving anxiolytic therapy.

Almost one-third of the patients indicated that their symptoms required treatment. The mean BAI score of patients who felt that their symptoms warranted treatment was more than triple that of patients who did not feel that their symptoms warranted treatment (19 vs. 6.2, respectively). The vast majority of patients with significant anxiety scores felt as though their symptoms required treatment (20/26). Almost one-half of the patients who felt that their anxiety symptoms warranted treatment were not receiving anxiolytic therapy; conversely, about one-tenth of those patients receiving anxiolytic therapy did not feel as though their anxiety symptoms warranted treatment.

In general, as the number of caffeine-containing products used per day increased, so did the mean BAI score. An interesting finding was that greater than 80% of subjects with significant anxiety used caffeine-containing products, and greater than 50% used at least 4 caffeine

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Table 1. Questionnaire Results

Subject category	Mean BAI* Score	Anxiety Category n (%)				Anxiolytic Treatment n (%)	
		Minimal	Mild	Moderate	Severe	Yes	No
Total (n=102)	10.3	52 (51.0)	24 (23.5)	17 (16.7)	9 (8.8)	24 (23.5)	78 (76.5)
Discussed symptoms with physician:							
Yes (n=47)	16.2	15 (31.9)	9 (19.1)	14 (29.8)	9 (19.1)	22 (46.8)	25 (53.2)
No (n=55)	6.7	37 (67.3)	15 (27.3)	3 (5.5)	0 (0.0)	2 (3.6)	53 (96.4)
Felt symptoms required treatment:							
Yes (n=33)	19.0	6 (18.2)	7 (21.2)	11 (33.3)	9 (27.3)	17 (51.5)	16 (48.5)
No (n=69)	6.2	46 (66.7)	17 (24.6)	6 (8.7)	0 (0.0)	7 (10.1)	62 (89.9)
Consumed caffeine:							
None (n= 17)	10.0	9 (52.9)	4 (23.5)	3 (17.6)	1 (5.9)	2 (11.8)	15 (88.2)
1-3 per day (n=46)	8.5	26 (56.5)	12 (26.1)	5 (10.9)	3 (6.5)	10 (21.7)	36 (78.3)
4-6 per day (n=23)	12.3	9 (39.1)	6 (26.1)	5 (21.7)	3 (13.0)	8 (34.8)	15 (65.2)
>6 per day (n=16)	13.2	8 (50.0)	2 (12.5)	4 (25.0)	2 (12.5)	4 (25.0)	12 (75.0)
Received anxiolytic pharmacotherapy:							
Yes (n=24)	19.6	5 (20.8)	4 (16.7)	9 (37.5)	6 (25.0)	---	---
No (n=78)	7.6	47 (60.3)	20 (25.6)	8 (10.3)	3 (3.8)	---	---

* Beck Anxiety Inventory

products per day. Almost one-third of the patients who reported using at least 4 caffeine products per day were receiving anxiolytic therapy.

Twenty-four patients were receiving anxiolytic therapy. Fifteen of these patients scored in the moderate to severe range of anxiety, thus indicating the possibility that the pharmacotherapy was inadequate to relieve anxiety symptoms. Due to the study population, all patients received medication therapy of some type, but there were no clear examples of cases in which patients may have had medication-induced anxiety.

Discussion

Pharmacists are the most accessible health resource available for patients, so it stands to reason that they would be involved in disease screening.[4] The role of the pharmacist in screening for various disease states continues to evolve. Medical disease states such as hypertension, diabetes, dyslipidemias, and osteoporosis are well suited to this process due to the availability of diagnostic devices.[5] However, pharmacist screening for mental illnesses, such as anxiety disorders, is conceptually more difficult due to their subjective nature. In particular, anxiety

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disorders are more likely to present with symptoms than with overt signs [9], and are very likely to present with a myriad of somatic complaints that makes detection difficult.[10,11] Thus, pharmacists have not been routinely involved in the screening of anxiety states, and we are unaware of any published studies that have examined this topic.

The present pilot study was an attempt to establish the feasibility of pharmacist screening for anxiety in the community setting. The results point to numerous potential roles of community pharmacists in the screening and management of anxiety. At least eleven patients in this sample of 102 (i.e., those with significant anxiety who were not receiving anxiolytic therapy) were appropriate for referral to mental health treatment. Patients with mild to moderate anxiety who had not discussed their symptoms with the physician could have been encouraged to do so or referred to mental health treatment. The discordance between those patients who felt their symptoms required treatment and those who actually received anxiolytic therapy demonstrated a further need for appropriate referral. Pharmacists could have followed-up on those patients who experienced significant anxiety despite receiving anxiolytic therapy. The anxious patients who consumed caffeine products may have benefited from counseling and education.

We propose that another study be conducted that would more definitively explore these roles of community pharmacists. Pharmacists could use the BAI as a screening instrument and ask the questions included in the questionnaire in order to make assessments and consequent clinical interventions. We would suggest that particular referral sites be involved so that their ultimate clinical interventions could be included in the analysis as well.

Limitations

This pilot study has several limitations, some of which were partially due to time constraints, and others partially due to data collection procedures. There were a relatively limited number of completed questionnaires, and there was no way to confirm that requirements and instructions were followed accurately. Although the questionnaire was designed to require no verbal instructions, we have no way of knowing whether patients had questions, asked questions of the pharmacy personnel, or were provided correct and consistent answers in the event that they did ask questions. Given the distribution of the three pharmacies involved, it is unknown whether these results may be extrapolated to other populations within the state or beyond. The timeframe of the project was relatively narrow, and there is no way of knowing whether results may have been different had the project occurred in other seasons of the year. Finally, selection bias is possible in that patients who completed the questionnaire may not have been representative of those patients who were eligible to participate. Specifically, individuals with anxiety may have been more likely to complete the questionnaire than were individuals without anxiety.

Conclusions

This pilot study found that community pharmacists may very well have a role in the screening and management of anxiety. The BAI offers several advantages in the screening of anxiety in the pharmacy setting, and thus may play a key purpose in the process. Further studies are needed to more definitively examine pharmacist screening of anxiety in the community setting.

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