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Primary Care Providers' Perspectives On Psychoactive Medication Disorders in Older Adults

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Abstract

Background—Compared to younger adults, older adults consume a disproportionate percentage of pain and sleep medications. Some studies have reported that psychoactive medication misuse and abuse in older populations is a significant problem.

Objectives—To understand primary care providers' (PCPs) perspectives regarding the extent and clinical presentations of misuse and abuse of psychoactive medications in older patients and to explore PCP's perceived barriers to identifying affected individuals.

Design—Semi-structured focus groups with PCPs.

Participants—Seventeen physicians and five nurse practitioners from two ambulatory care practices serving older adults in New York City.

Methods—Six focus group discussions were audiotaped and transcribed. Two raters coded transcripts to identify recurring themes. Qualitative analysis software (QSR NVivo 8) was employed for data coding and sorting purposes.

Results—Although PCPs felt that only a small percentage of older patients were actively misusing or abusing their psychoactive medications (average estimate given by providers = 8%), PCPs felt that these patients placed significant time burdens on them. Perceived risk factors included psychiatric disorders, prior substance abuse history, and cognitive impairment, but many PCPs found it impossible to predict which patients were at increased risk. PCPs identified multiple barriers to identifying affected patients, including lack of communication (between provider and patient, provider and patient's caregivers, and between different providers), nonspecific symptoms, and the lack of a clear definition of misuse and abuse.

Conclusions—The lack of a clear definition, absence of well-defined risk factors, and ambiguous clinical manifestations of psychoactive medication misuse and abuse present substantial barriers to diagnosis. A standard, age-appropriate definition could help PCPs to establish a diagnosis, clarify what constitutes appropriate psychoactive medication use, define the extent of the problem, and pave the way for the development of effective screening and diagnostic tools.

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Keywords

drugs; abuse; misuse; psychoactive; prescription; geriatric

INTRODUCTION

Older adults consume a greater proportion of prescription drugs than other age groups (1). Due to high prevalence rates of pain and insomnia (2–5), older adults are also far more likely to receive prescriptions for psychoactive medications with misuse and abuse potential, including opioids and benzodiazepines (6). Relatively few studies have examined the prevalence of prescription medication misuse and abuse in older adults (7–15), and the results of these investigations have been mixed. One investigation (7) estimated that 300,000 older adults misuse a prescription medication each month, while another found that 11% of women over 60 misuse psychoactive medications (8). A recent study of 3,497 older adults residing in Florida found that misuse of prescription medications was the most common substance abuse issue (with a prevalence of 26%), and was more common than either alcohol or illicit substance abuse (9). Other research suggests that the problem may be growing: a recent analysis estimated that the number of older adults who misuse psychoactive medications could increase from 911,000 in 2001 to as many as 2.7 million in 2020 (10). In contrast, one study (11) reported that 1.4% of adults over age 50 reported nonprescription use of pain relievers, while another found that 5% of elderly patients abused their prescription drugs (12).

Some of the variability in the prevalence estimates noted above can be explained by the different definitions for misuse and abuse used in these studies. Definitions ranged from the broad such as prescription medication problems or taking medication for the wrong reasons or taking the wrong dose (9) to the specific such as use of Diagnostic and Statistical Manual of Mental Disorders (DSM-III) criteria for substance abuse (13). One review on this topic (1) noted that many studies did not provide any definition at all and suggested that the lack of a standard age-appropriate definition for psychoactive medication misuse and abuse, as well as a lack of validated screening tools, limits researchers' ability to accurately estimate the full scope of the problem.

Prior studies of older adults have reported numerous risk factors for misuse and abuse, including psychiatric illness, a history of substance abuse, and female gender (16,17, 18). However, because misuse and/or abuse definitions vary from study to study, it is uncertain how clinically useful these risk factors are. Other factors may also complicate identification of older patients who misuse or abuse psychoactive medications: primary care providers (PCPs) may mistake certain psychoactive medication misuse sequelae (insomnia, falls, memory deficits, and mood changes) for changes associated with aging or symptoms of a comorbid condition. (18) Preconceptions on the part of the provider, patient, and/or family members as to what constitutes misuse or abuse in this age group may also complicate recognition of the problem (19–21). For instance, older adults who are misusing or abusing a psychoactive medication may not always demonstrate the same symptoms as younger adults, such as dose escalation or drug-seeking behaviors (19). Furthermore, older adults with either benzodiazepine or opioid medication-associated problems may not be willing to admit to these problems because of shame or the stigma attached to use of psychoactive medications in this age cohort (1). Finally, DSM-IV definitions of substance abuse and dependence rely on criteria such as legal troubles, problems in relationships, at work, or in school, that may not be applicable for many older adults (1).

For these reasons, psychoactive medication misuse and abuse is a challenge to diagnose, but failure to identify and address this problem can lead to serious sequelae. The consequences of psychoactive medication misuse and abuse include increased risk for falls, confusion and other types of cognitive impairment, adverse drug-drug interactions, as well as hypotension or hypertension (22, 23). Misuse and abuse of psychoactive medications may also exacerbate coexisting depression and anxiety disorders (27). Because of a number of age-related changes, older adults are particularly vulnerable to these outcomes (18, 22).

Given the above findings, the objective of the current study was to determine PCPs' perceptions regarding the prevalence and clinical manifestations of psychoactive medication misuse/abuse among older primary care patients. We focused exclusively on misuse and abuse of benzodiazepine and/or opioid medications since these medications are commonly employed to treat sleep and pain problems among older adults (1,9, 18) and have substantial abuse potential (1). We also sought to ascertain patient-level factors perceived by PCPs to increase risk for psychoactive medication misuse or abuse. Finally, we examined PCPs' perceived barriers to identifying older patients who misuse and abuse psychoactive medications. Accomplishing these objectives could help clinicians and researchers understand how misuse and abuse is viewed within the primary care setting.

PATIENTS AND METHODS

Study Sites

Study sites included 2 academically affiliated primary care practices serving older adults in New York City: Columbia University's Division of Geriatric Medicine's outpatient practice in upper Manhattan, which serves a largely Hispanic population, and New York Presbyterian's Irving Wright Center on Aging, which serves a largely non-Hispanic white population of patients.

Eligible participants included PCPs who provided longitudinal patient care and could prescribe psychoactive medications (physicians and nurse practitioners). Recruitment occurred during routine staff meetings by one of the investigators (MCR). Participants were recruited based upon their interest and availability to attend one of the group sessions. No incentives were provided. Of the 29 eligible PCPs at the two practices, 22 (76%) participated in a focus group. All 7 providers who did not participate in a focus group cited scheduling conflicts as a reason for not participating. Non-participants did not differ from participants with respect to demographic or practice characteristics.

Focus Group Methodology

At the start of each focus group, the moderator (MCR or MP) introduced the study and briefly explained the study objectives. This study was approved by the Weill Cornell Institutional Review Board and all participants provided informed consent prior to the start of each focus group. In order to understand how providers defined and characterized misuse and abuse from a clinical perspective, the moderator purposefully avoided providing definitions for these terms. Focus group participants were asked to reflect on 2 specific classes of psychoactive medications (benzodiazepines and opioids) during the discussions. A semi-structured discussion followed using the following open-ended questions that were created based upon a review of the literature and pilot tested prior to use in the current study: (1) Is psychoactive medication misuse/abuse a problem in your practice? If so, how is it a problem?; (2) What types of older patients are most likely to misuse/abuse psychoactive medications?; (3) How does misuse/abuse of psychoactive medications manifest itself in your practice?; (4) What criteria do you use to help you determine whether an older patient is misusing or abusing a psychoactive medication?; (5) Are there any barriers to

identification of older patients who are misusing/abusing their medications?; and (6) Any other comments/suggestions that come to mind about this issue at this time? Follow-up probes were employed in an effort to have participants either clarify or expand their remarks.

PCPs completed a brief questionnaire at the end of each focus group that included questions regarding their age, gender, and race. The written, self-administered questionnaire also asked: (1) How long (in years) have you been practicing medicine (please count from the year you completed your residency training)?; (2) What proportion of your patients in practice are above the age of 60 (0–25%, 26–50%, 51–75%, and 76–100%)?; (3) Please estimate the proportion of your patients who currently receive either a benzodiazepine or opioid medication prescription?; and (4) Of those prescribed a benzodiazepine or opioid medication, what proportion do you think either misuse or abuse their medication?

A total of 6 focus groups were conducted ranging in size from 3 to 6 participants, lasting from 35 to 52 minutes each (average focus group length = 45 minutes). Each PCP participated in only one group. Participants included 17 physicians and 5 nurse practitioners. Fifty percent of the participants were between the ages of 25 and 44, 36% were between 45 and 60, and the remaining 14% were ages 60 or above. The sample was mostly female (68%) and non-Hispanic white (64%). The mean number of years in practice was 12 (range = 1 month–30 years). Participants reported that they delivered care to a mostly older patient panel: 100% of the sample estimated that older adults constituted the majority of their patient panels, i.e., 76–100% of patients seen in their respective practices were over the age of 60.

Data Analysis

All focus groups were audiotape recorded, transcribed, and analyzed for thematic content using a standard method (24) by two independent raters (MP, MCR). Investigators reviewed the focus group data independently and then met to discuss observations and reconcile divergent interpretations until agreeing upon a single common set of themes. After generating preliminary themes, the data were entered into QSR NVivo 8 (25) to facilitate theme sorting and counting. The analysis of each transcript occurred continuously, i.e., after each focus group. After analyzing data from the 6th focus group, it was determined that no new themes had emerged, suggesting that thematic saturation had been reached. Descriptive statistics were calculated for all variables collected as part of the written questionnaire.

RESULTS

When asked to estimate the percentage of their older patients who were currently taking either an opioid or benzodiazepine medication on the written questionnaire, the mean participant response was 24% (median response = 15%, range = 5–50%). PCPs estimated that, on average, 8% of this subgroup of patients evidenced psychoactive medication misuse/abuse problems (median estimate = 2.5%, range = 0–75%).

Focus Group Findings

Providers reported that psychoactive medication misuse and/or abuse occurred infrequently in their older patients but the problem although rare, imposed significant time burdens on their practices. Dealing with patients who misused or abused medications created frequent disruptions for the providers, their colleagues, and staff.

This one patient that I'm thinking of... she gets desperate a week before her prescription is due and she will call literally 5 times in a row. If I'm with a patient, I'll see the light go on, then she'll call the front desk and one of the other providers,

and she won't stop until you've called in the prescription. You can just hear the desperation in her voice... A lot of time goes into this each month. And the amount of energy she puts into this, there's one of her. It's her driving force.

Risk Factors—When asked about risk factors for misuse and/or abuse of psychoactive medications, PCPs recounted factors previously described in the literature, including psychiatric disorders (depression, anxiety, posttraumatic stress disorder), cognitive impairment, and a prior history of substance abuse (see Table).

A significant minority (35%) explained that risk factors for misuse and/or abuse were either difficult or impossible to characterize. Many PCPs felt that they could not reliably associate misuse and abuse with any specific patient characteristics—instead, misusers and abusers were often patients they would never suspect as engaging in these types of activities.

I think that we probably miss a lot of people if we try to characterize them de novo, the way that little old lady looks so sweet you would never think of her.

Clinical Manifestations of Misuse/Abuse—PCPs related that drug-seeking behaviors were by far the most common manifestation of psychoactive medication misuse or abuse (see Table). They described the many different forms of drug-seeking behavior they observed in patients, including multiple phone calls to the office to ensure that monthly prescriptions would be filled, multiple requests for early refills, and “doctor-shopping,” i.e., going to different providers to obtain an opioid or benzodiazepine prescription. Reports of hoarding medications were also viewed as a manifestation of misuse. As one physician related:

I have a patient who was misusing Xanax. The daughter called to say her mom was rooting around in the closet looking for the bottles that she's hidden of the Xanax. So when we get that kind of call, that's about as specific as you get.

Use of the medications in a way other than prescribed was also considered by some PCPs as a type of misuse. For example, patients might rely on an opioid as a sleep aid.

I'll ask them about sleep hygiene, and they say, “Oh, I take Percocet before I go to bed and it works pretty good...” If they don't have pain, they'll take it for sleep instead of a sleeping pill.

Another provider related that some patients reported taking opioids not for pain, but to reduce their anxiety or to improve their mood:

I asked one patient why he took his opioid and he told me, “It makes me happy, it helps me feel better.”

Once a patient came to rely on the medication for these particular effects, he or she often resisted suggestions to switch to another medication or therapy to treat the underlying problem:

They're often very resistant to talk [about other options to treat their problem], or try other options for sleep, like sleep hygiene.

Barriers to Identification—PCPs reported numerous barriers to diagnosing older patients who misuse or abuse psychoactive medications. Most of the barriers could be classified into three categories: (1) the need to communicate with others to construct a complete picture of the patient history, (2) a lack of a consensus definition as to what constitutes psychoactive medication misuse or abuse, and (3) confusing and obscure symptoms. Less frequently mentioned barriers included time limitations and providers' hesitancy to ask about abuse or misuse out of fear of “rocking the boat” with the patient or the patient's family.

Lacking the complete picture: PCPs felt that even an extensive patient history was often inadequate to make a diagnosis of psychoactive medication misuse or abuse. Participants noted that they were often only able to diagnose misuse or abuse after communicating with other providers caring for the patient, the patient's pharmacist, and/or the patient's family members or caregivers.

I don't think you can do this kind of assessment without evoking a larger base of information... I think for the abuse thing you have to look beyond just the doctor-patient relationship and look at how the pharmacist-doctor-patient relationship can help define and really detect what's really going on.

PCPs noted that they often relied on the patient to provide honest answers regarding how the medication was actually being used, but many patients hid their misuse or abuse. Other patients were in denial of their problem:

They might not be telling you. They might try to pretend they don't have an issue.

PCPs also related that some older patients lacked awareness about an abuse or misuse problem due to cognitive deficits.

I worry about patients with dementia. They are at very high risk for abuse because they may not remember when they've last taken it. And I've gone over medications frequently with people realizing that it's an uphill battle for someone with very bad short-term memory. Physicians lack a consensus definition for psychoactive medication misuse/abuse

Seven participants (in 5 of the 6 focus groups) asked the moderator to define the terms psychoactive medication misuse and abuse. PCPs frequently noted that they had no clear, working definitions for these constructs, which made it difficult to understand it, let alone diagnose it.

Focus group discussions revealed that PCPs often held widely divergent perceptions about what constituted psychoactive medication misuse and/or abuse. One provider expressed the belief that benzodiazepines were contraindicated in older adults and therefore defined any use of benzodiazepines as medication misuse. Similarly, other PCPs cited specific cases in which providers prescribed benzodiazepines to patients who were frail, at risk of falls, or who were unable to understand instructions for use, defining misuse as inappropriate prescribing by providers. In contrast, other PCPs defined misuse and abuse by certain patient behaviors (e.g., multiple requests for early refills) or symptoms (e.g., cognitive decline). Another PCP related that abuse was present when a patient decided to quit and then relapsed. Several PCPs readily acknowledged that they did not have a working definition and explained that the ambiguity surrounding this construct (medication misuse/abuse) made them feel unsure of their clinical decisions or placed them in a position of making an ethical decision that made them uncomfortable. For example, PCPs wondered if it was their job to prevent patients from using medications solely for euphoric effects, even if they observed no negative health or functional consequences in patients who were using the medications in this way.

Obscure or misleading symptoms: Many PCPs felt that the symptoms of misuse and abuse were often unclear and subtle, preventing them from establishing a firm diagnosis. Symptoms were often masked by comorbidities, so providers felt uncomfortable jumping to the conclusion that misuse or abuse was occurring. PCPs expressed concerns about false negatives, explaining that patients who misuse or abuse their medications often don't show any of the common clinical manifestations.

You can't always tell, it's not every patient who calls [for refills] early.

Additional Themes—Two additional themes emerged from the focus groups: (1) opioid/benzodiazepines provide substantive benefits for certain older patients; and (2) many PCPs strongly dislike prescribing these medications.

Opioid and benzodiazepine medications help certain older patients: Many PCPs were adamant that these drugs are often the best medications available to treat pain and anxiety/sleep disorders in older adults. Providers reported that the benefits outweighed the risks in many cases and that many patients experience significant improvements in their quality of life while taking these medications.

By taking them away, you're actually causing more anxiety and more distress to the patient. So have you really done the best for your patient by following what you're supposed to do, especially if they function very well with that medicine for many years?

Some PCPs avoid prescribing these medications if at all possible: While many PCPs praised the benefits these medications bring to certain patients, several providers also said they derived little satisfaction from prescribing opioids or benzodiazepines to older patients. Providers feared the rare negative outcome, the rebuke of other doctors who might treat the patient or see the chart, and the possible legal issues associated with prescribing these medications.

They've gotten some particular psychoactive medication concoction, and you say to yourself, "My God, I hope nobody sees this." But you get there by using an empiric process that makes sense.

DISCUSSION

This study provides new information about primary care providers' perspectives regarding the prevalence, risk factors, clinical manifestations, and barriers to diagnosing psychoactive medication misuse and abuse among older adults. PCPs estimated that, on average, 1 in 4 patients were receiving either a benzodiazepine or opioid medication at the time of the study, confirming that the potential for medication misuse and/or abuse is substantial. Although PCPs did not perceive misuse and abuse to be prevalent problems, their responses suggested that psychoactive medication misuse and abuse, when present, imposes substantial time burdens by disrupting staff and requiring PCPs to consult with pharmacists, family members, and other providers. Furthermore, our results reveal that providers perceive significant barriers to the diagnosis of psychoactive medication misuse and abuse in this population of patients, including lack of adequate predictors for abuse and misuse, nonspecific symptoms, and the lack of a clear definition of misuse and abuse. These barriers may explain the wide variability of prevalence estimates providers gave for psychoactive medication misuse/abuse, which ranged from 0% to 75%. This result is even larger than published prevalence estimates that span from 1% – 26% (7–12), suggesting that some clinicians may be routinely overestimating the degree of the problem, while others may be routinely underestimating it.

Prior research suggests that the risk of psychoactive medication misuse or abuse increases with female gender, poorer overall health, a prior history of substance abuse, and psychiatric illness (16–18, 26–28). PCPs echoed these associations in the focus group discussions, but many explained that these risk factors are seldom helpful in practice. A significant minority voiced comments reflecting ambiguity or frank uncertainty regarding who is at risk: "It's someone you wouldn't expect," "It's impossible to generalize," and "I rely on instinct." This finding suggests that, although the risk factors enumerated in the literature may be helpful in

identifying patients at highest risk, conventional risk factors may not be sufficiently sensitive or specific to diagnose misuse or abuse in older patients.

A recent study (19) reported that older patients often do not present with common signs of addiction. Because older patients may not demonstrate drug-seeking behavior or dose escalation, physicians may minimize the problem and view long-term use differently in this age group than they would in younger patients (19). Indeed, observations of prescription drug use in older adults reveal that medication abuse in older populations may be a different illness with both qualitative and quantitative differences. Unlike younger drug abusers, older adults only rarely use drugs to “get high” and are unlikely to obtain drugs illegally (29). Instead, older adults are more likely to use prescription drugs in unsafe combinations or quantities, obtaining these combinations and quantities from multiple physicians (“doctor shopping”) or from friends or relatives (29). As a different disease with different manifestations, prescription drug abuse in older patients may require a separate definition and diagnostic criteria. At this time, no such criteria exist. One group of investigators (1), noting that the DSM-IV criteria for drug abuse and dependence often do not apply to older adults, conducted a literature review in search of a consensus definition. In their review of 67 articles on the topic, no standard definition of abuse/misuse emerged and many articles provided no definition for medication abuse/misuse at all (1). In the present study, providers noted that the lack of a standard definition as well as the disorder’s subtle and ambiguous manifestations create an inherent challenge to the diagnosis of psychoactive medication misuse/abuse in their older patients. This ambiguity impacts clinical practice: many providers doubt their ability to accurately diagnose misuse and abuse.

An appropriate definition of psychoactive medication misuse may include standard definitions of non-medical use of a drug, such as using a benzodiazepine or opioid more frequently or at higher doses than prescribed or for a reason other than that prescribed. But, because older adults face risks that may be different from those facing younger adults, an alternative definition might include 1) any use of a psychoactive medication found to be particularly risky in older adults, such as use of a long-acting benzodiazepine; 2) use of a benzodiazepine or opioid in the subgroup of patients having conditions or symptoms likely to be worsened by the use of such medications (e.g., depression, gait instability, cognitive impairment); and 3) use of a psychoactive medication in older patients who are already taking medications or over the counter products (e.g., antihistamines, alcohol, or muscle relaxants) that cause sedation, coordination, or other functional problems. In addition, psychoactive medication abuse might be defined as any maladaptive and persistent pattern of medication use that leads to significant functional impairment (e.g., worsening gait or cognition) or psychological distress to include socialization problems (e.g., social isolation). Our study provides strong support for concerted efforts, such as a consensus conference, to generate an age-appropriate definition for psychoactive medication misuse and abuse.

Until age-appropriate and validated screening tools are available to assist clinicians in identifying persons who may be misusing or abusing psychoactive medications, all clinicians should remain vigilant about the possibility of medication misuse and/or abuse in older patients. Care coordination (e.g., are patients receiving psychoactive medications from other providers?) and routine surveillance of actual medication home use are mandatory. Obtaining proxy data is indicated if a physician believes the patient is not telling the truth. If a patient on a psychoactive medication develops a new functional impairment or evidences worsening of an already existing functional problem and the physician is unable to ascertain whether the change is related to the medication or an existing comorbid condition, then tapering the medication is indicated to determine whether the problem improves.

Several limitations of the study warrant consideration. Of note, our study was conducted in New York State, which has a rigorous prescription monitoring program, a circumstance that may have influenced our findings. In addition, the sample size was small and participants were volunteers. All data were collected at two study sites, both academic medical centers in New York City, so the findings may not generalize to other practices and providers. Providers, however, represented a range of demographic and experience levels, to maximize contributing perspectives. It is possible that participants viewed misuse and/or abuse of benzodiazepines differently from misuse or abuse opioid medications, but we did not ask participants to provide specific comments by medication type. We did review our transcripts, however, and found no statements indicating that participants viewed misuse and abuse differently between the two medication classes. Finally, all quantitative data provided in the study reflect thematic repetition, which may not reflect how central a role it plays in clinical practice.

CONCLUSIONS

Our study suggests that psychoactive medication misuse or abuse affects a minority of older patients who use benzodiazepines and opioids. However, as the number of psychoactive medication prescriptions continues to increase (11) and as the number of older adults in the country continues to expand, the impact of this problem is likely to grow. As primary care visits become more rushed and care is increasingly fragmented, psychoactive medications disorders may become even more difficult to detect. Our findings provide strong support for efforts to develop age-appropriate, standardized criteria for misuse and abuse, as well as validated screening tools to identify patients misusing or abusing these medications. Finally, our findings strong support educational interventions targeting PCPs regarding problematic use of benzodiazepines and opioid medications in later life.

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Table

Major Focus Group Findings

	% of Groups Mentioning (n=6)	% of Participants Mentioning (n=22)	Total No. of Times Each Theme Was Mentioned
Clinical Manifestations			
Family or caregiver expresses worry	83%	32%	13
Patient's use of medication differs from the indication for which it was prescribed	67%	36%	21
Functional deficits (e.g., cognitive decline, ADL deficits)	67%	36%	20
Patient lies to physician about their use of medication	67%	36%	11
Risk Factors			
Psychiatric disorders (e.g., depression, anxiety, PTSD)	83%	45%	15
Hard to characterize (no criteria, someone you wouldn't expect, or a "certain personality type")	67%	32%	18
Cognitive impairment	67%	27%	7
History of substance abuse	50%	23%	6
Barriers To Diagnosis *			
Insufficient information available	100%	82%	43
Definitions of misuse and/or abuse are unclear	83%	55%	15
Symptoms of misuse and/or abuse are obscure or confusing	67%	41%	17

* The table includes the most frequently mentioned barriers to diagnosing psychoactive medication misuse/abuse. Less frequently cited barriers by participants included time limitations (mentioned by 27% of the participants) and providers' hesitancy to inquire about misuse/abuse (mentioned by 14%).