Somatization in Polypharmacy: Hiding in Plain Sight

Michael J. Schuh, PharmD, MBA, FAPhA, FFSHP; Susan Garcia, PharmD
Mayo Clinic Florida

Abstract
Polypharmacy and somatic symptom disorder (SSD) are common conditions clinicians see every day in practice. Polypharmacy is easy to identify and causation seems to be straightforward. However, SSD may not be so obvious and may be an underlying cause of the polypharmacy that may be more difficult to identify. Identifying SSD as a potential psychiatric cause for polypharmacy and understanding that adding more medications will not adequately resolve the patient's symptoms is important to prevent polypharmacy from being exacerbated.

Keywords: Polypharmacy; Somatic Symptom Disorder; Patient; Pharmacy

Background

Polypharmacy by one account has more than 100 different definitions.[1] Polypharmacy defined here will be qualitative and defined as the taking of multiple medication and supplement agents being taken concomitantly that increase the risk of medication related problems (MRPs) to produce less than desirable patient outcomes.[2] With MRPs being defined primarily as adverse drug reactions (ADRs), drug-drug interactions (DDIs), drug-gene interactions (DGIs) or drug-drug-gene interactions (DDGIs). To meet the qualifications of polypharmacy in some of the current literature, a patient needs to be taking more than 5 medications. If they are taking more than 10 medications, this would be classified as excessive polypharmacy.[3] One systematic review included original studies published between 2003 and 2018 using the search term "polypharmacy". Polypharmacy was found to range between 10% and 90%, depending on the population studied.[3] From this literature review, one may conclude that polypharmacy is common, regardless of the population studied.

Somatization is a descriptive term classifying a group of symptoms known as somatization disorder, undifferentiated somatoform disorder, hypochondriasis, and pain disorder.[4] The official diagnostic term, according to the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) in 2013 is somatic symptom disorder (SSD).[4] This terminology combines the somatization disorders mentioned above into one classification. This manuscript includes literature prior to reclassification in 2013.[4] SSD is described as one or more medical conditions with not easily measurable symptoms accompanied by excessive thoughts, feelings, or behaviors related to these symptoms.[4] The symptoms may cause distress and dysfunction for patients attempting to perform activities of daily living. The somatic symptoms may or may not be accompanied by a recognized diagnosis.[4-5] Many may have diagnoses such as fibromyalgia, Lyme disease, anxiety, depression, or migraine headaches.[6]

The incidence of SSD in the general population is 4% to 6% but increases significantly in primary care patients to 17% as a possible reflection of patients with SSD disproportionately utilizing medical resources.[7-9] Incidence of SSD is 25% to 60% in patients with a DSM-5 diagnosis of chronic fatigue syndrome, fibromyalgia, inflammatory bowel syndrome (IBS).[10-13] Using these data and knowing that these patients use a disproportionate amount of medical services, the chances of commonly encountering patients with SSD is also high.[6-13] It is important to recognize in patients who may have many intolerances to medications with the aforementioned conditions that the best solution may be deprescribing and a pharmacologic solution may not be the best solution.[14] The objective of this manuscript is to create SSD awareness for the clinician to assist them in identification of SSD and administration of best practices treatment.

Confounders to SSD identification

Because of vague or ill-defined symptoms being treated, in addition to more definably diagnosed symptoms, patients with SSD are frequently polypharmacy patients. Because of the elevated number of therapeutic agents, symptoms and sometimes chronic conditions, the focus may be on the medical conditions and therapeutic agents but not on the underlying cause of the polypharmacy and the ill-defined symptoms, which is psychiatric. After analyzing the prevalence of polypharmacy and SSD in a population of patients who would visit a pharmacy or see a clinical pharmacist, one can see there is an excellent chance of interacting with polypharmacy patients with an SSD component on nearly a daily basis. In addition, since the symptoms are not easily measurable, a primary care provider, may not recognize the underlying psychiatric condition. MRPs mentioned above in the form of ADRs, DDIs, DGIs, and DDGIs complicate things further by causing more symptoms, which are treated with more medications, many times causing more or adding to existing symptoms, and these are then treated.

Corresponding Author:

Michael J. Schuh, PharmD, MBA, FAPhA, FFSHP
Mayo Clinic Florida, Jacksonville, FL
Email: schuh.michael@mayo.edu
Phone: 904-953-2673

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This prescribing cascade cycle can easily be repeated when patients are being seen by multiple specialists who are focused on only a part of the patient instead of considering holistically the entire patient.[15] This may be why many of these patients may be seen at tertiary care facilities.

Complicating the polypharmacy aspect of an already complex patient is their decision to start herbal and dietary supplements or cannabis products. These products are aggressively marketed and quite popular with patients. They have therapeutic effects and can cause ADRs, DDIs, DGIs and DDGIs just like prescription (Rx) and over the counter (OTC) medications but are regulated more like foods. Before seeing a physician, patients may decide on self-treatment using these increasingly popular products.[16-17] Because one is dealing with a psychiatric condition, the patient likely will not need a great many of the supplements, OTC and Rx products they are taking because the best therapies for SSD are non-pharmacological in the form of cognitive behavioral therapy (CBT) or other psychiatric therapy such as relaxation techniques.[18-19]

Antidepressant agents may be all some patients require with diagnosed anxiety or depression and SSD.[20]The use of these agents may also be more effective when combined with CBT.[21] Even though SSD is psychiatric in origin, it may be unwise, without an excellent relationship with the patient, to mention their symptoms are "in their head" or that they are psychiatric at all. They may have already heard dismissive sounding comments like this from other providers. One can take a neurological perspective and explain their very real suffering in terms of neurologic cause related to something such as central sensitization.[22]

Also because of the number of agents the polypharmacy patient takes, there is now a higher possibility that the patient is experiencing side effects or drug interactions from these agents, further complicating evaluation, assessment and clinical decision making. Some medication iatrogenic conditions caused by polypharmacy can be chronic serotonin syndrome in fibromyalgia patients taking serotonin-norepinephrine reuptake inhibitors (SNRIs) and cyclobenzaprine, medication overuse headache from frequent non-steroidal antiinflammatory drug (NSAID) use in chronic headache or migraine headache patients.[23-24]

Approaches to SSD therapy

To simplify decision making, the "polypharmacist" may wish to implement deprescribing, a process of reducing the number of agents a patient takes to improve outcomes by lessening the negative effects of potentially unnecessary Rx, OTC and herbal products.[25] The use of pharmacogenomics (PGx) may give more specific origin for any gene-drug interactions that may be causing medication iatrogenic effects.[25] However, PGx may not always be the answer since there is not always high level evidence of potential drug-gene of drug-drug-gene interaction.[26] It may be easiest to start with the reduction of supplements. If pharmacists in their state do not have the authority via collaborative practice agreements (CPAs) or other mechanisms to decrease dosages or discontinue prescription medications, supplements can be stopped without a provider approval with possibly the exception of dietary supplements taken for deficiency in, for example, a bariatric patient taking B-12 or a calcium with vitamin D supplement in an osteoporosis patient. After the supplements, any OTC medications can be streamlined. One can then partner with the patient's provider to reduce opioids or other pain medications, muscle relaxants, stimulants or other symptomatic therapies not related to a diagnosed chronic condition that are Rx medications.

Some tips on identifying SSD in a polypharmacy patient may be many intolerances or "allergies" to medications and the patient trying to guide medication therapy. These intolerances may make little sense and do not match common adverse drug reactions associated with those particular medications or class of medications. Also a patient having intolerances that are the same across drug classes, or a patient that may or may not have many intolerances but has unusual anxiety about starting new medications, especially if they have a history of one or more adverse drug reactions with previous medications. Patients may or may not be on psychiatric medications or report they had other past traumatic experiences, acute or chronic, not associated with medications. These experiences may manifest as either intolerances to medication therapy or present as somatization.[4,27]

In the Mayo Clinic Florida practice we are fortunate to have good support from our referring providers on the existence and incidence of SSD. Many of our physician colleagues at this tertiary care facility see these same patients. Because of this, the patients will hear a consistent, holistic, deprescribing message from both the pharmacist and physician or other providers regarding potential somatization. In our practice, we carefully introduce the concept giving examples of phobias and central sensitization to reassure the patient symptoms are very real symptoms that are not expressed voluntarily by the patient. Since the patient may have already had a provider dismiss their symptoms, we do not introduce this subject until after rapport has been established.[27-28] If approached properly, most patients are accepting of a neurological, mechanistic explanation to cause rather than a psychiatric centered approach.

It is important for the pharmacist to give a clinical rationale for making any therapeutic change or recommendation. This is for the benefit of the patient and provider so these recommendations or changes can be better understood and resistance to changes or recommendations may more easily be diminished. Documentation in the patient's chart should include clinical rationale and be objective. This will help

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clinicians later understand the thought process of the original pharmacist clinician.

Conclusion

There are many opportunities for pharmacists to meaningfully participate in the care of complex polypharmacy patients. The pharmacist's therapeutic knowledge is well suited to recognizing MRPs and apply this specific foundational knowledge to herbal and dietary supplements or cannabis products. However, while concentrating on medications, just as medical clinicians may concentrate on more measurable diagnoses, psychiatric conditions such as SSD may be overlooked. In addition, pharmacists may apply PGx across the spectrum of pharmacologic agents to solve MRPs but also know many of the patients seen can be afflicted with unrecognized SSD, whereas medication may not be the solution and deprescribing as another valuable tool can be used.

Disclaimer: The statements, opinions, and data contained in all publications are those of the authors.

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