Psychotropic Pro Re Nata (Prn) Medications: A Critical Comparative Inquiry

Abstract
Psychotropic as needed or pro re nata (prn) medications, particularly antipsychotics and benzodiazepines, are commonly prescribed, which is not evidence-based. This paper aims to suggest a set of answers to the question why is this practice common. A critical comparative inquiry approach and conceptual analysis are used, addressing psychopharmacology (psychotropic medications), neurostimulation/neuromodulation, psychotherapy and psychiatric rehabilitation as the four main types of clinical intervention in contemporary psychiatry. Key findings are that psychotropic prn medications may be commonly prescribed primarily due to coercive behavior towards people with psychosis in the case of antipsychotics and due to insufficient access to evidence-based psychosocial interventions such as cognitive behavioral therapy (CBT) in the case of Benzodiazepines. This paper is limited by the dearth of rigorous evidence published in relation to psychotropic prn medications. Psychotropic prn medication may be prescribed for unacceptable reasons. Rigorous research is needed to study reasons for prescribing psychotropic prn medications as well as their cost-benefit, preferably using well-controlled comparisons with psychosocial (and other) evidence-based interventions such as CBT.

Keywords: Antipsychotics; Benzodiazepines; Coercion; Prn; Psychotropic medications

Introduction
Psychotropic medications are often prescribed ad hoc or as needed, technically termed pro re nata (prn). These prn medications are either provided off label for indications for which they have not been shown to be effective and hence have not been formally approved for, or they are provided as formally approved for selective indications. A prime example of the first type of practice is that of antipsychotic prn prescriptions, which are often provided for agitation caused by various clinical conditions, such as delirium and psychosis related to schizophrenia for which this practice has been shown to be unsafe [1]. A prime example of the second type of practice is that of benzodiazepine prn prescriptions, of which those with relatively short half-lives such as lorazepam are indicated for use in real time for some anxiety symptoms such as panic attacks, even if their safety as well as effectiveness for this indication is controversial. Benzodiazepine prns are also often provided off label for agitation (indeed, it is not uncommon to prescribe an antipsychotic together with a benzodiazepine for such agitation), which has been shown to be unsafe in some situations such as when provided for delirium [2,3].

Why is the demonstrably unsafe and often ineffective practice of prescribing antipsychotics and benzodiazepines prn common? This paper aims to suggest a set of answers to this question, in order to facilitate more inquiry into this matter and hence hopefully improve the safety and effectiveness of psychotropic medication – particularly antipsychotic and Benzodizapine – use.

Methods
A critically minded approach that does not assume that current practice is optimal is needed in this context, and comparative inquiry is arguably necessary for any research [4]. Hence, a critical comparative inquiry approach is used here, addressing psychopharmacology (psychotropic medications), neurostimulation/neuromodulation (mechanically penetrating the brain or not), psychotherapy and psychiatric rehabilitation as the four main types of clinical intervention in contemporary psychiatry. Conceptual analysis is used to break down the
principal question into related sub-questions that facilitate the suggestion of answers [5-9].

Results

First, is a prn approach used in the three other main types of clinical intervention as well as for other psychotropic medications? Other psychotropic medications such as anti-depressants and mood stabilizers are not used in a prn manner, partly as some of them – such as anti-depressants – may not be effective as prn medications and partly as some of them – such as mood stabilizers – may not be safe as prn medications. All effective neurostimulation/neuromodulation interventions, such as electroconvulsive therapy for severe depression and deep brain stimulation for refractory obsessive compulsive disorder, do not use a prn approach. All evidence-based psychotherapies, such as cognitive behavioral therapy (CBT) for anxiety or depression and dialectical behavioral therapy for borderline personality disorder, do not use a prn approach. And psychiatric rehabilitation best practices, such as high fidelity supported employment for people with a psychiatric disability and manualized multi-family psychoeducation for people with schizophrenia, do not use a prn approach.

Second, are there pertinent similarities and differences between antipsychotic prn and benzodiazepine prn practices? A conspicuous similarity is their common use for agitation, which seems to be related to their generic – sedative – effects rather than to their more specialized effects – antipsychotic and anxiolytic, respectively. As noted above, this is not a safe practice for some conditions that it is used for. A conspicuous difference is the use of such prn practices (particularly antipsychotics) for people with psychosis to subdue their behavior when it is considered disruptive, compared to the use of such prn practices (specifically benzodiazepines) to alleviate suffering of people with anxiety symptoms in real time such as for panic attacks. Subduing what is considered disruptive behavior with prn medication that is unsafe for them can be considered part of the more general coercive behavior towards people with psychosis such as schizophrenia. Alleviating suffering in real time with prn medications when there are safer and more effective interventions to use for that such as CBT can be considered part of the more general situation to date of insufficient access to evidence-based psychosocial interventions.

Discussion

Key findings of this inquiry are that psychotropic prn medications may be commonly prescribed primarily due to coercive behavior towards people with psychosis in the case of antipsychotics and due to insufficient access to evidence-based psychosocial interventions such as cognitive behavioral therapy (CBT) in the case of Benzodizapines. Hence, moral distress of service users, providers and other parties involved may be generated due to these practices, which are unsafe as well as ineffective in many instances [10]. Such moral distress is an additional negative consequence that may result from use of these practices, although it may generate positive action such as policy and practice remediation in response. Of note is that this paper is limited by the dearth of rigorous evidence published in relation to psychotropic prn medications.

Conclusion

To conclude, psychotropic - antipsychotic and Benzodiazepine - prn medications may be prescribed for unacceptable reasons. Rigorous research is needed to study reasons for prescribing these psychotropic prn medications as well as their cost-benefit, preferably using well-controlled head-to-head and other comparisons with psychosocial (and other) evidence-based interventions such as CBT.

References