The experiences of mental health professionals and patients in the use of *pro re nata* medication in acute adult mental health care settings: a systematic review protocol of qualitative evidence

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A previous version of this article has been retracted. See:

Review question/objective

The objective of this review is to synthesize the best available qualitative evidence on the experiences of mental health professionals and patients with the use of *pro re nata* (PRN) medication in acute mental health care settings. More specifically, the review question is: what do mental health professionals experience when they administer or prescribe PRN medications and what do patients who receive these PRN medications experience?

Background

*Pro re nata* medication means "when necessary" from the Latin phrase *pro re nata* which means for an occasion that has arisen, as circumstances require, as needed.¹ The most common types of PRN medications administered by mental health professionals in acute mental health care settings are psychotropic medications. The word “psychotropic” comes from the Greek word *psycho* which has a combined meaning of psyche, which indicates the mind, soul or spirit, as opposed to the body,¹ and *tropo* or *tropos*, the Greek word which means turning, hence, “what turns the mind”.² Psychotropic medications affect chemical levels in the brain which can affect mood, perception and behavior.²

When a medical officer writes an order for PRN medication they will write an order for one or more medications to be given to the patient at the mental health professional's discretion.
that the documented specifications for administration are met. The documented specifications on the medication chart are specifically about the dose of medication and the circumstances under which the medication should be given. The reasoning behind this is that by having these medications available to use at times when a patient is acutely unwell, agitation or violence in the acute mental health setting may be prevented or contained without having to call a medical officer to prescribe medication.

There has been a considerable number of studies conducted on the use of PRN medication in acute mental health care settings. The authors of a quantitative Cochrane systematic review compared “as required” medication regimens with regular medication regimens for severely mentally ill people in hospital. Twenty-two papers were included in the review. Some of the papers included reported that PRN medication was used comprehensively in psychiatric facilities to manage patients who were suffering agitation or who were disturbed or distressed. Twenty-three percent of inpatients in mental health facilities were found to have had at least one PRN dose of medication during their hospital stay. A total of 50% of patients in secure mental health care received PRN medication while admitted. Once PRN medication is prescribed, it is administered regularly, sometimes up to 10 times per patient and most of these in the four days within admission. The authors of the Cochrane systematic review found that although the practice of using PRN medication is standard practice, there was no evidence found from the review that PRN use was the best way of dealing with agitation among those mental health patients when compared to regular doses of medication.

While the Cochrane systematic review examined the effectiveness of PRN medication for seriously mentally ill people, Baker et al. conducted a best evidence synthesis on drug use/administration of PRN medication in mental health wards. Best evidence synthesis involves the analysis of quantitative papers, supplemented by a review of the broader literature that may result in a qualitative analysis. Baker’s synthesis found that psychotropic PRN administration was wide-ranging and that there were many factors involved in determining administration. Baker highlighted the need to understand the clinical decision making around this practice. He found that practice varied widely. Baker’s research highlighted some of the areas around administration of PRN medication, including the frequency of when it was given, how often it was given in a 24 hour period, what was administered by what route, and what the effects and side-effects of the medications were.

Some additional research conducted on the use of PRN medication includes retrospective studies in which case notes were audited, and administration practices were examined. Other studies have looked at antecedents to PRN administration, activities to reduce PRN medication administration and literature reviews.

Much of the research conducted on the administration of PRN medication within mental health care settings has focused on quantitative research and from only the perspective of the nurse. The patient’s experience of PRN medication use in adult acute mental health care settings is an area that is lacking in understanding, as few studies have explored the administration of PRN medication from a patient’s perspective. Research by Baker et al. into service users’ experiences of “as needed” medication concluded that service users or patients found that PRN medications were useful but they appeared to have only a limited understanding of the use of PRN medication and possible alternatives to its use. Baker et al. also reported that the process around the use of PRN medication could be stigmatizing and confusing, and that nurses should provide the patients with information about PRN medication as well as any other treatment choices. Further research by Cleary et al. into patients’ views and experiences
of PRN medication found that the majority of patients were able to talk about at least one use of PRN medication that provided relief for them. Cleary et al. found that from the patients’ perspective, interactions with patients around the immediate administration of PRN medication were inadequate.\textsuperscript{16}

Gaining an understanding of mental health professionals’ and patients’ use of PRN medications is important as the literature shows that there are many variables in the administration of PRN medication in acute adult mental health care settings. Understanding how a patient feels about this practice and understanding how mental health professionals make decisions around this practice are also important.

The aim of this systematic review is to provide a deeper understanding of the circumstances and factors that influence a mental health professional and their use of PRN medication. This systematic review will endeavor to locate evidence of the use of PRN medications by mental health professionals including the clinical decision-making process when administering and prescribing PRN medication. This review will also endeavor to find evidence of patients’ understanding and viewpoints on the use of PRN medication. A search of the Joanna Briggs Institute Database of Systematic Reviews and Implementations Reports, CINAHL and PubMed databases did not find any current or planned reviews on this topic.

**Keywords**

Mental health nurses; qualitative; PRN medication; pro re nata medication; phenomenology

**Inclusion criteria**

**Types of participants**

This review will consider studies that include mental health professionals working in an acute adult mental health care setting who prescribe and administer PRN medications as well as adults admitted to an acute adult mental health care setting.

**Phenomena of interest**

This review will consider studies that investigate mental health professionals’ and patients’ experiences in the use of PRN medication.

**Context**

The context for the review is acute adult inpatient mental health care settings. These settings are usually within public health systems or private mental health settings.

**Types of studies**

This review will consider English language studies only that focus on qualitative data including, but not limited to, designs such as phenomenology, grounded theory, ethnography, action research and feminist research.

**Search strategy**

The search strategy aims to find both published and unpublished studies. A three-step search strategy will be utilized in this review. An initial limited search of MEDLINE and CINAHL will be undertaken followed by an analysis of the text words contained in the title and abstract, and of the index terms used to describe the articles. A second search using all identified keywords and index terms will then be
undertaken across all included databases. Thirdly, the reference list of all identified reports and articles will be searched for additional studies. Studies published in English language will be considered for inclusion in this review. Studies published prior to the commencement of this protocol, prior to April 2014, will be considered for inclusion in this review.

The databases to be searched include:

- CINAHL
- PubMed
- Embase
- Scopus
- PsycINFO

The search for unpublished studies will include:

- ProQuest Dissertations and Theses
- Mednar
- Google Scholar

Initial keywords to be used will be:

- Nursing OR nursing staff OR nurses OR nurse OR clinician OR mental health nurses
- AND
- Pro Re Nata, OR clinical decision-making OR PRN medication OR medication administration
- AND
- Mental health
- AND
- Qualitative OR qualitative and experience OR lived experience OR perception OR perceived OR understanding OR ethnography OR phenomenology OR feminist and research OR critical and research OR action and research OR systematic review

**Assessment of methodological quality**

Papers selected for retrieval will be assessed by two independent reviewers for methodological validity prior to inclusion in the review using standardized critical appraisal instruments from the Joanna Briggs Institute Qualitative Assessment and Review Instrument (JBI-QARI) (Appendix I). Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer.

**Data extraction**

Data will be extracted from papers included in the review using the standardized data extraction tool from JBI-QARI (Appendix II). The data extracted will include specific details about the phenomena of interest, populations, study methods and outcomes of significance to the review question and specific objectives. For any missing information the primary author of papers will be contacted.
Data synthesis

Qualitative research findings will, where possible, be pooled using JBI-QARI. This will involve the aggregation or synthesis of findings to generate a set of statements that represent that aggregation, through assembling the findings rated according to their quality, and categorizing these findings on the basis of similarity in meaning. These categories are then subjected to a meta-synthesis in order to produce a single comprehensive set of synthesized findings that can be used as a basis for evidence-based practice. Where textual pooling is not possible, the findings will be presented in narrative form.

Conflicts of interest

The authors declare that there are no conflicts of interest.

Acknowledgements

As this systematic review forms partial submission for the degree award of Masters of Clinical Science, a secondary reviewer will assist in critical appraisal and the author would like to acknowledge the input of the secondary reviewer.
References


Appendix I: Appraisal instruments

QARI appraisal instrument

**JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Unclear</th>
<th>Not Applicable</th>
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<tbody>
<tr>
<td>1. Is there congruity between the stated philosophical perspective and the research methodology?</td>
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<td>2. Is there congruity between the research methodology and the research question or objectives?</td>
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<td>3. Is there congruity between the research methodology and the methods used to collect data?</td>
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<td>4. Is there congruity between the research methodology and the representation and analysis of data?</td>
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<td>5. Is there congruity between the research methodology and the interpretation of results?</td>
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<td>6. Is there a statement locating the researcher culturally or theoretically?</td>
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<td>7. Is the influence of the researcher on the research, and vice versa, addressed?</td>
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<td>8. Are participants, and their voices, adequately represented?</td>
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<td>9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?</td>
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<td>10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?</td>
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Overall appraisal:  

Include  

Exclude  

Seek further info.

Comments (including reason for exclusion)

________________________________________________________________________

________________________________________________________________________
Appendix II: Data extraction instruments

QARI data extraction instrument

**JBI QARI Data Extraction Form for Interpretive & Critical Research**

<table>
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<th>Reviewer</th>
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<td>Author</td>
<td>Year</td>
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<tr>
<td>Journal</td>
<td>Record Number</td>
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</table>

**Study Description**

Methodology

Method

Phenomena of interest

Setting

Geographical

Cultural

Participants

Data analysis

Authors Conclusions

Comments

Complete Yes □ No □
<table>
<thead>
<tr>
<th>Findings</th>
<th>Illustration from Publication (page number)</th>
<th>Evidence</th>
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<td>Unequivocal</td>
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Extraction of findings complete  Yes ☐  No ☐