Drivers and Solutions for "Too Much Medicine" in Mental Healthcare: a Cross-Sectional Study

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Objectives

This study aimed to:

1. Identify **drivers of too much medicine in mental health** in the published literature and map them onto **domains** and **mechanisms** by which they occur.
2. Describe **potential solutions** that have been proposed to address too much medicine in mental health

Methods

Literature search:

- Updated the search of a previous scoping review that looked at overdiagnosis in medicine
- Performed a literature review using PubMed, focused on too much medicine in mental health

Eligible articles:

- Eligible articles included at least a dedicated section with a designated header or a full paragraph to drivers or solutions for too much medicine in mental health care

Data extraction:

- Drivers were classified as factors plausibly linked to any mechanism by which too much medicine occurs, including overdiagnosis, misdiagnosis, overtreatment, and overutilization, or other mechanisms that would be identified. Solutions were possible mechanisms for addressing a driver that were linked to that driver in the article.

Domains

1. **Culture**: refers to collective beliefs about health and health care.
2. **Health system**: relates to disease definitions, regulations, policies and systemic incentives.
3. **Industry**: relates to influence of industry on medicalization.
4. **Professionals**: refer to issues in professional's development and practice, including how decisions about health care services are made.
5. **Patients and the Public**: involves decisions made by consumers of health services and treatments.

Mechanisms

1. **Overdiagnosis (OD)**: When correctly applied existing diagnostic criteria include people with transitory or mild symptoms that reflect normal experiences who would not benefit meaningfully from diagnosis.
2. **Overtreatment (OT)**: Treatment that is offered after a correct diagnosis even though the best evidence available suggests that it is not effective for the diagnosed condition.
3. **Misdiagnosis (MD)**: When a person receives a diagnosis for a mental disorder without meeting diagnostic criteria for a disorder. This can lead to an individual receiving treatment for a disorder they do not have.
4. **Overutilization (OU)**: Exclusive reliance on or bias towards pharmaceutical treatments when alternative treatments exist and may be similarly effective with less adverse effects but are not considered.

Results

Culture
Widespread societal belief that each clinical visit and each vague symptom deserves a prescription (OT)
Racial bias leads to the overmedication of African Americans with antipsychotics in an emergency psychiatric setting (OT) *Solution: Engaging patients more personally in the evaluation of their treatment process may reduce a racial bias that leads to overmedication*
Behaviour inconsistent with family or cultural values is addressed psychiatrically even though a mental health disorder is not present (MD)
Societal acceptance of a biologically reductionist paradigm of mental disorders necessitating drug treatment (OU)
Health system
Expansion of existing disease definition without evidence of benefits and lowering of diagnostic threshold which may include mild or transitory symptoms (OD) *Solution: A validated checklist for modifying disease definitions can be used to ensure that adequate procedures are followed to evaluate implications of changes*
Broad interpretation and inappropriate application of adult disorders to normal and expected mood and behaviour variations in adolescents (OD)
Overburdened healthcare staff or family may rely on drugs to manage non-psychiatric challenging behaviour of children or elderly in institutional settings (OT) *Solution: Routine deprescribing programs can help to separate appropriate and necessary medications from inappropriate medication use*
Lack of clinical guidelines for deprescribing and discontinuing medication intended for short term use, especially for vulnerable populations (OT) *Solution: Development of clinical guidelines for deprescribing practices, especially for vulnerable populations*
Medical services reimbursements to the patient are often predicated on an obtained diagnosis (MD) *Solution: Make reimbursement payments to patients for clinical visits not predicated on obtaining a diagnosis*
Overinclusive epidemiological studies create a false perception of underdiagnosis that may be counterbalanced by unnecessary diagnoses (MD)
Many negative findings and treatment harms in clinical trials tend to go unpublished, creating a skewed positive perception of the benefits of a given treatment (OU) *Solution: Journals could require all clinical trials to be registered so that all relevant data is reported and shared*
Industry
Industry promotes the medication of mild and common symptoms in primary care, medical journals, and to the public, by downplaying harms and blurring the line between illness and minimal dysfunction (OT) *Solution: Banning drug adverts in medical journals. Stronger control of therapeutic claims and warning of side effects. Restricting the distribution of free samples.*
Industry provides funding not free from commercial interest to experts involved in clinical trials, the development of CPGs, diagnostic manuals, and educational programs, which may overstate perceived drug benefits (OU) *Solution: Clinicians should be able to rely on government or independently funded sources of information with no commercial ties for prescribing and treatment recommendations*
Non-publishing, selective-reporting or positive spin of negative findings in industry clinical trials in order to amplify the perceived benefit and safety of drug treatment (OU)
Industry pressure on regulatory bodies to reclassify prescription drugs for over-the-counter sale in order to expand its market (OT)
Industry has pushed for an oversimplified biological conception of mental disorders favoring pharmaceutical treatment over other appropriate treatments with fewer side-effects (OU)
Professionals
Immediate or premature application of a diagnosis and drug treatment for mild and transitory symptoms, not likely to benefit the patient (OD) *Solution: Use of a stepped diagnosis and treatment approach, passing through transitional steps culminating in a diagnosis and drug treatment only as a last resort*
Clinicians may not adjust harmful and high volume off-label prescription habits, despite contrary evidence for efficacy and suggested guidelines. (OT) *Solution: Sending peer comparison letters to high volume prescribers causes substantial and durable reductions in prescribing, with no evidence of negative effects on patients*
The relative immaturity of younger children in a given class may be interpreted as ADHD and treated as such (MD)
Clinicians may base diagnoses on the presentation of stereotypical symptoms (i.e., mood instability in BD) or on overinclusive stereotypes based on sex (i.e., ADHD in boys) instead of considering whether all diagnostic criteria are met (MD)
Clinicians sometimes rely on overinclusive screening questionnaires to make a diagnostic or treatment decisions (MD)
A reliance on a "quick biomedical fix" provides a sense that something is being done and avoids dealing with complicated contextual factors (OU)
Patients and the Public
Frustrated parents and overburdened teachers may pressure clinician to treat non-psychiatric challenging behaviour in children using medication (OT) *Solution: Routine deprescribing programs can help to separate appropriate and necessary medications from inappropriate medication use*
Patient belief that long-term medication is the only cure for a supposed chronic condition, disregarding alternatives and advisable discontinuation (OT)
Patients may seek a diagnosis in order to access disability benefits and other accommodations, rather than for a psychiatric need (MD) *Solution: Malingering questionnaires can be used to detect faking or exaggeration of symptoms*