Pharmacological Strategies for Bipolar Depression in different care settings

JIN HONG (HARRY) PARK, M.D., M.S.

PGY-4 resident, Mayo Clinic, Rochester, MN

2024 Minnesota Psychiatric Society Annual Spring meeting
March 16th, Minneapolis, MN

LEARNING OBJECTIVES

1. Recognize the discrepancies in the delivery of evidence-based treatments for acute bipolar depression across different care settings

2. Identify opportunities for optimizing care for acute bipolar depression in primary care settings through education and fostering a conducive environment

3. Explore potential benefits of implementing collaborative care models for bipolar depression to enhance treatment outcomes
BACKGROUND

Limited evidence of using antidepressants in bipolar disorder (BD)\(^1\)

Different settings including primary care clinic, integrated behavioral health program, and specialty care clinic

Collaborative care established for depression in primary care setting, yet its uncertainty in BD\(^2\)

**Aim of study** - examine pharmacological strategies / patterns for bipolar depression within different care settings.


METHODS (1)

1. Retrospective study in 2020 (IRB 22-003795)

2. Depressive episode captured based on DSM criteria, ICD codes, or symptom burden (PHQ-9 ≥10)

3. **Pharmacological strategies** initial encounter
   1) Continue current regimen
   2) Increase dose of current treatment
   3) Augmentation
   4) Switch to monotherapy of an antidepressant, mood stabilizer, or atypical antipsychotic
   5) Combination of the above
METHODS (2)

3. **Prescription patterns** measured by use of
   1) antidepressants
   2) mood stabilizers
   3) atypical antipsychotics

4. Multinomial logistic regression to examine association between **clinic settings** and **initial pharmacological strategies** by measuring marginal effect
   1) Generalized estimating equations implementation of logistic regression with an exchangeable correlation structure to
   2) examine the association between **clinic settings** and **prescription patterns** by measuring marginal effect

RESULTS (1)

- 217 encounters (32 in PC, 53 in IBH, 132 in SC)
- Age = 39.4 years (SD: 14.39)
- Sex ratio (M:F) = 75:142
- 91.7 % of Caucasian
- History of suicide attempt = 31.6%
- History of psychiatric hospitalization = 64.5%
- Psychiatric ED visit in the same year = 9.2%
- PHQ-9 = 17.5 (SD: 4.65)
- GAD-7 = 13.5 (SD: 5.21)
- Bipolar type (I, II, NOS) = 32%, 59%, 9%
RESULTS (2)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Continue current regimen</th>
<th>Increase dose</th>
<th>Augmentation</th>
<th>Switch to monotherapy</th>
<th>Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Counts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>22 (69%)</td>
<td>4 (13%)</td>
<td>3 (9%)</td>
<td>2 (6%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>IBH</td>
<td>6 (11%)</td>
<td>14 (26%)</td>
<td>15 (28%)</td>
<td>8 (15%)</td>
<td>10 (19%)</td>
</tr>
<tr>
<td>SC</td>
<td>6 (5%)</td>
<td>46 (35%)</td>
<td>19 (14%)</td>
<td>20 (15%)</td>
<td>41 (31%)</td>
</tr>
<tr>
<td></td>
<td>Marginal Effect (Percentage Point Change)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IBH</td>
<td>-57.43%***</td>
<td>13.92%</td>
<td>18.93%*</td>
<td>8.84%</td>
<td>15.74%*</td>
</tr>
<tr>
<td>SC</td>
<td>-64.20%***</td>
<td>22.35%**</td>
<td>5.02%</td>
<td>8.90%</td>
<td>27.94%***</td>
</tr>
</tbody>
</table>

PC: Primary care setting, IBH: Integrative behavioral health program, SC: Specialty care setting
* p<0.05, ** p<0.01, *** p<0.001

RESULTS (3)

<table>
<thead>
<tr>
<th>Setting</th>
<th>AD Use</th>
<th>MS Use</th>
<th>AP Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Counts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>9 (28%)</td>
<td>19 (59%)</td>
<td>15 (47%)</td>
</tr>
<tr>
<td>IBH</td>
<td>16 (30%)</td>
<td>45 (85%)</td>
<td>39 (74%)</td>
</tr>
<tr>
<td>SC</td>
<td>58 (44%)</td>
<td>114 (86%)</td>
<td>82 (62%)</td>
</tr>
<tr>
<td></td>
<td>Marginal Effect (Percentage Point Change)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IBH</td>
<td>-2.18%</td>
<td>26.35%***</td>
<td>25.51%**</td>
</tr>
<tr>
<td>SC</td>
<td>13.39%</td>
<td>26.13%**</td>
<td>14.74%</td>
</tr>
</tbody>
</table>

PC: Primary care setting, IBH: Integrative behavioral health program, SC: Specialty care setting
* p<0.05, ** p<0.01, *** p<0.001
DISCUSSION

• Strengths
  • First study in a single center

• Limitations
  • Single tertiary academic center
  • Limited sample size
  • Impact of COVID-19 in 2020

• Opportunity to educate primary care providers
  • Potential for PCPs to expand their utilization of mood stabilizers and atypical antipsychotics

• Explore implementing collaborative care model in BD

CONCLUSIONS

• Evidence of disparities in pharmacological strategies for BD

• Highlight the need and potential benefit of collaborative care model for BD depression
OUR TEAM MEMBERS

SAM T. SAVITZ, PH.D.
Assistant Professor of Health Services Research
Statistical support

SCOTT A. BREITINGER, M.D.
Assistant professor of Psychiatry
Principal Investigator

MARK A. FRYE, M.D.
Professor of Psychiatry
Principal Investigator

THANK YOU!
QUESTIONS & ANSWERS