The Effect of a Non-Select Menu on Weight Restoration and Eating Concern in an Adolescent Population Hospitalized with Anorexia Nervosa

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LHSC Inpatient Child and Adolescent Eating Disorders Program: Menu Types

- Pre April 2007
  - Select food service menu
  - Menu marking according to caloric requirements

- Post April 2007
  - Non-select food service menu
  - Set menu according to 4 calorie levels

Weight Restoration

- Structural brain abnormalities reversed\(^1,2\)
- GI complications improved\(^3-8\)
- Eating disordered thinking improved\(^3-8\)
- IP readmission less likely\(^9-14\)
- Weight gain target for medically stable IP
  - 2-3 lb/wk (0.9-1.3 kg/wk)\(^9,10,13,14\)
  - 85% of IBW more intensive tx may be used\(^9\)

Study Objectives

- Compare weight restoration and eating concern for select and non-select menus for IP with AN admitted to LHSC ED Program

- Non-select menu in IP paediatric AN
  - Weight restoration - ↑ ?
  - Eating concern - ↓ ?

Sample Criteria

- Inclusion criteria
  - Diagnosis of AN as defined by DSM-IV
  - Admitted after Sept ’05 & discharged by Jan ’10
  - First IP ED admission of at least 14 days

- Exclusion criteria
  - NG feeding tube for > 3 consecutive days

- Sample
  - Select menu: 18 participants
  - Non select menu: 22 participants

Methodology
Data Collection

- Descriptive data
  - Type of AN, age, gender, psychiatric co-morbidities
  - Admitting weight and BMI
  - Weight gain (weekly and total)
  - Length of IP stay
  - Eating concern score (EDE subscale\(^{15}\))
    - Preoccupation with eating and calories
    - Fear of losing control over eating
    - Anxiety related to eating in front of others
    - Guilt related to eating
    - Admitting and discharge score

Data Analysis

- Averages and ranges of descriptive data
- Validation of use of parametric tests
- QQ plots to test for normality
- Levene’s test for equality of variances
- Independent samples t-tests
- Difference score for eating concern
- Two tailed tests, \(p\)-value of .05
- SPSS Statistics 17.0

Results and Discussion

Sample Characteristics

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN-R</td>
<td>38</td>
<td>95</td>
</tr>
<tr>
<td>AN-BP</td>
<td>2</td>
<td>5</td>
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</table>

<table>
<thead>
<tr>
<th>Comorbid Axis I or II Diagnosis</th>
<th>N</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>22</td>
<td>55</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>13.3</td>
<td>2.1</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Admission Weight</td>
<td>36.0</td>
<td>6.1</td>
<td>23.0</td>
<td>50.0</td>
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<tr>
<td>Admission BMI</td>
<td>14.5</td>
<td>1.9</td>
<td>11.5</td>
<td>20.1</td>
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Statistical Analyses

<table>
<thead>
<tr>
<th>Weight Restoration</th>
<th>Non-Select Menu</th>
<th>Select Menu</th>
<th>(t)</th>
<th>(df)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Weekly Wt Gain (kg)</td>
<td>(.95) (SD=.35)</td>
<td>(.72) (SD=.24)</td>
<td>2.33</td>
<td>38</td>
<td>.025</td>
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<tr>
<td>Total IP Weight Gain (kg)</td>
<td>7.49 (SD=2.67)</td>
<td>7.52 (SD=3.67)</td>
<td>- .03</td>
<td>37</td>
<td>.974</td>
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<td>Length of IP Stay (days)</td>
<td>60.27 (SD=22.75)</td>
<td>74.22 (SD=29.22)</td>
<td>-1.72</td>
<td>38</td>
<td>.094</td>
</tr>
</tbody>
</table>

Statistical Analyses

<table>
<thead>
<tr>
<th>Eating Concern (EDE)</th>
<th>Non-Select Menu</th>
<th>Select Menu</th>
<th>(t)</th>
<th>(df)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>preoccupation with eating</td>
<td>1.13 (SD=1.32)</td>
<td>1.13 (SD=1.32)</td>
<td>- .53</td>
<td>27</td>
<td>.598</td>
</tr>
<tr>
<td>fear of losing control over eating</td>
<td>(0.00) (SD=2.39)</td>
<td>(0.00) (SD=2.39)</td>
<td>.57</td>
<td>27</td>
<td>.574</td>
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<tr>
<td>anxiety related to eating in front of others</td>
<td>1.01 (SD=2.29)</td>
<td>1.01 (SD=2.29)</td>
<td>.70</td>
<td>27</td>
<td>.491</td>
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<tr>
<td>guilt related to eating</td>
<td>(-0.29) (SD=2.59)</td>
<td>(-0.29) (SD=2.59)</td>
<td>-.10</td>
<td>27</td>
<td>.925</td>
</tr>
</tbody>
</table>
Conclusions

- Rate of weight gain is significantly increased with non-select menus as compared to select menus in adolescents hospitalized with anorexia nervosa.
- Eating concern is not significantly different with non-select menus as compared to select menus in adolescents hospitalized with anorexia nervosa.

Future Research

- Data from other ED treatment programs
- Varied population
- Non-paediatric population
- Long term outcomes
- Weight maintenance
- Readmission
- Comparison to other menu types
- Non-select vs non-select progressing to select

Cited References


Other References