An Additional Benefit to Integrating Behavioral Health Services in Primary Care: Attendance to Initial Appointment

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INTRODUCTION

- Adults, particularly in rural settings, do not follow-through with referral to behavioral health services (Boyer, McAlpine, Pottick, & Olffson, 2000; Henry & Ball, 1998).
- Physicians are the most common referral sources for behavioral health services (Amaddeo, Zambello, Tansella, & Thornicroft, 2001).
- Some evidence suggests coordinated referrals between professionals results in improved patient follow-through (Boyer, et al., 2000).
- Integrated primary and behavioral health care has many advantages including the potential for improved patient follow-through with outpatient behavioral health services (Mechanic, 2003).

RESULTS

- Adults, particularly in rural settings, do not follow-through with referral to behavioral health services (Boyer, McAlpine, Pottick, & Olffson, 2000; Henry & Ball, 1998).
- Physicians are the most common referral sources for behavioral health services (Amaddeo, Zambello, Tansella, & Thornicroft, 2001).

Table 2: Attended Initial Appointment

<table>
<thead>
<tr>
<th>Clinics</th>
<th>Percent Attended Initial Visit (N)</th>
<th>Average Days Waiting for Appointment</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>78.9% (352)</td>
<td>27.77</td>
<td>0-246 days (SD = 32.98)</td>
</tr>
<tr>
<td>B</td>
<td>89.3% (216)</td>
<td>27.22</td>
<td>2-222 days (SD = 38.75)</td>
</tr>
<tr>
<td>C</td>
<td>71.9% (82)</td>
<td>21.59</td>
<td>2-131 days (SD = 19.42)</td>
</tr>
<tr>
<td>Overall</td>
<td>81% (650)</td>
<td>26.89</td>
<td>0-246 days (SD = 33.55)</td>
</tr>
</tbody>
</table>

- Vast majority of referrals made to an in-house behavioral health clinic were attended.
- Significant differences for clinic on likelihood of attendance, $\chi^2 (N = 802, df = 2) = 18.1, p < .001$.
- Pairwise comparisons revealed that Clinic B show rates were significantly higher than each of the other two clinics.
- Children who had to wait longer for first appointment were less likely to attend, $t (122) = 3.94, p < .001$.
- Child age and gender did not affect attendance.

Table 3: Attendance Based on Impairment Judged by Referring Physician

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-40 (Mild)</td>
<td>73</td>
<td>76.8%</td>
</tr>
<tr>
<td>41-60 (Moderate)</td>
<td>250</td>
<td>80.9%</td>
</tr>
<tr>
<td>61-100 (Major)</td>
<td>178</td>
<td>87.3%</td>
</tr>
</tbody>
</table>

- 81% of all children referred attended initial behavioral health visit.
- Significant difference for clinic on likelihood of attendance, $\chi^2 (N = 802, df = 2) = 18.1, p < .001$.
- Pairwise comparisons revealed that those with major impairment were more likely to attend initial visit than those with mild impairment ($p < 0.05$).

DISCUSSION

- Of these referral reasons, only aggression was related to attendance ($p < .05$). Those referred for aggression problems were more likely to show than those who were not referred for aggression.
- Potential benefits to having an in-house BHC:
  - May increase attendance in rural communities due to trust in physicians.
  - Physicians often involve us in referral process which may be a “bridging strategy”, closer link between the physician and psychologist.
  - In rural settings, may have a sense of obligation to follow through.
  - Provides continuity of care to children within primary care and behavioral health services (Adair, McDougall, Beckie, et al., 2003).
  - In rural settings, have to follow up in-house vs. out-of-house behavior health referrals.
  - Important to try to offer appointments soon after referral is made. May be a challenge in rural areas that have mental health professional shortages.

METHODOLOGY

- To examine attendance rates to a behavioral health service located in a rural pediatric primary care office.

METHODS

Participants

Table 1: Demographic Information by Clinic for Referrals

<table>
<thead>
<tr>
<th>Clinics</th>
<th># of Referrals</th>
<th>Mean age of Months</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>451</td>
<td>92.02</td>
<td>272</td>
<td>174</td>
</tr>
<tr>
<td>B</td>
<td>242</td>
<td>90.06</td>
<td>168</td>
<td>62</td>
</tr>
<tr>
<td>C</td>
<td>114</td>
<td>118.77</td>
<td>67</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>807</td>
<td>95.10</td>
<td>507</td>
<td>262</td>
</tr>
</tbody>
</table>

- Setting:
  - Referrals from three primary care clinics: 2 pediatrics, 1 family practice
  - Clinics located in rural Nebraska

Variables Collected

- Referral source
- Reason for referral (31 categories developed)
- Physician rating of impairment at referral
- Number of days between referral and appointment offered
- Initial appointment attended

Reliability

- Conducted reliability checks on accuracy of transferring written information from the referral form to data collection form, calculations of age, and days to intake.
- Reliability ratings ranged from 88% to 100%.