This study examined vocational rehabilitation service and outcome differences between youth with disabilities who participated in a model transition intervention and youth with disabilities who did not (Luecking, Fabian, Contreary, Honeycutt & Luecking, 2017). The transition model featured research supported components integrated into a single service model and implemented across eleven Maryland school districts from 2007 - 2013. Using administrative data extracted from the Maryland Division of Rehabilitation Services (DORS), we compared service and outcome data for participants with that of non-participants.
Several major findings emerged. Model participants: 1) experienced a shorter time from eligibility to development of the Individual Plan for Employment (IPE), but longer open cases; 2) received more job related services and less assessment and diagnostic services; cost less to serve; 3) achieved significantly higher employment rates at case closure; and 4) worked slightly fewer hours and earned less per week at closure. These results have implications for vocational rehabilitation (VR) practice with students and youth with disabilities, especially in the context of transition service requirements of the Workforce Innovation and Opportunity Act (WIOA).

**Research Methods**

Through a competitive process, DORS selected 11 of the 24 county-wide school districts in Maryland to pilot and implement a model intervention called the Maryland Seamless Transition Collaborative (MSTC). Each participating school district received a small sub-grant to plan and implement the model over 2 years between 2007 – 2013. The model was intended to be applicable to any high school student with a disability potentially eligible for DORS services, regardless of disability category (Luecking & Luecking, 2015).

**Intervention**

The intervention components were derived from the Guideposts for Success (NCWD-Y, 2005), with additional features related to VR case initiation, and included: discovery, emphasizing self-determined planning the development of work experience and jobs; individualized work experiences; individualized paid integrated employment; family supports; early VR case initiation that occurred no later than the second school year prior to projected school exits; systems linkages and collaboration represented by an interagency, cross functional team of professionals in each participating community. The collaborators included secondary education personnel, VR counselors, community rehabilitation providers (CRPs), intellectual/developmental disabilities and mental health agencies, and other community program representatives as relevant to the projected support needs of individual students. Figure 1 illustrates the model’s flow of services. Each site received planning and implementation technical assistance from DORS partner, TransCen, Inc., an organization experienced in transition service implementation and evaluation.

**Sample**

DORS provided the administrative data for analysis. The files they provided included (1) all MSTC youth and (2) all non-MSTC youth under the age of 22 at application and determined eligible between July 1, 2007 and June 30, 2013. The treatment group consisted of VR applicants who were identified as participants in the model program. The comparison group consisted of VR applicants who resided in the 11 participating counties, but who did not themselves participate in the model intervention. The final sample included 377 MSTC youth and 6,111 non-MSTC youth.
Analytical Approach

The data allowed for a non-experimental impact analysis of the MSTC program. To reduce dissimilarities on observable characteristics between MSTC participants and non-participants, we employed an inverse probability of treatment (IPT) weighting approach. We tested the hypothesis that MSTC participants differed from non-participants in selected key VR application, service, and outcome measures.

Results

MSTC participants experienced a shorter time for eligibility determination by an average of a little over five (5) days and experienced a much shorter average time between eligibility determination and Individual Plan for Employment (IPE) (132 days vs. 238 days).

A higher percentage of MSTC participants received job search assistance (37.1% vs. 30.2%), and on-the-job supports (45.9% vs. 21.4%). Non-MSTC participants received more rehabilitation technology (20.7% vs. 10.9%), assessment (66.9% vs 52.0%), diagnosis and treatment (15.5% vs. 7.4%), college training (9.0% vs. 3.2%), and other services (23.2% vs. 14.1%). The average cost of purchased services was almost $1,200 higher for non-MSTC participants compared to MSTC participants. Table 1 presents a comparison of service receipt by the two groups.
Table 1

Service Receipt Comparison

<table>
<thead>
<tr>
<th>Service Type</th>
<th>MSTC</th>
<th>MSTC County Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=377</td>
<td>N = 6,111</td>
<td></td>
</tr>
<tr>
<td>Time between application and eligibility (days)</td>
<td>26.97</td>
<td>31.92</td>
</tr>
<tr>
<td>N=344</td>
<td>N=4,312</td>
<td></td>
</tr>
<tr>
<td>Time between eligibility &amp; IPE (days)</td>
<td>131.77</td>
<td>237.71</td>
</tr>
<tr>
<td>Obtained IPE (%)</td>
<td>91.2</td>
<td>73.7</td>
</tr>
<tr>
<td>Any Service Received (%)</td>
<td>80.6</td>
<td>81.2</td>
</tr>
<tr>
<td>Job training</td>
<td>17.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Job search assistance</td>
<td>37.1</td>
<td>30.2</td>
</tr>
<tr>
<td>On the job supports</td>
<td>45.9</td>
<td>21.4</td>
</tr>
<tr>
<td>Rehabilitation technology</td>
<td>10.9</td>
<td>20.7</td>
</tr>
<tr>
<td>Assessment</td>
<td>52.0</td>
<td>66.9</td>
</tr>
<tr>
<td>Diagnosis and treatment</td>
<td>7.4</td>
<td>15.5</td>
</tr>
<tr>
<td>College training</td>
<td>3.2</td>
<td>9.0</td>
</tr>
<tr>
<td>Other training</td>
<td>15.1</td>
<td>19.5</td>
</tr>
<tr>
<td>Other services</td>
<td>14.1</td>
<td>23.2</td>
</tr>
<tr>
<td>Average total cost of purchased services</td>
<td>$2,728.78</td>
<td>$3,924.88</td>
</tr>
</tbody>
</table>

Almost 42% of MSTC participants were employed at closure compared to less than 24% of non-MSTC participants. Conversely, fewer MSTC participants (34.5%) experienced case closure without employment than non-MSTC participants (48.6%).

Of those employed at closure, MSTC participants earned an average of $8.02 per hour, compared to an average of $8.54 per hour earned by non-MSTC participants. MSTC participants worked slightly fewer hours per week (22.1) than non-MSTC participants (24.8). The resultant weekly earnings at closure yielded a difference of almost $36 between the two groups ($218.92 vs. $182.86). Table 2 presents a comparison of the case and employment outcomes of the two groups.
Table 2

Closure Outcomes Comparison

<table>
<thead>
<tr>
<th></th>
<th>MSTC Mean (standard error)</th>
<th>MSTC County Comparison Mean (standard error)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 377</td>
<td>N = 6,111</td>
</tr>
<tr>
<td>Closure Outcome (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closed with employment</td>
<td>41.9</td>
<td>23.4</td>
</tr>
<tr>
<td>Closed without employment</td>
<td>34.5</td>
<td>48.6</td>
</tr>
<tr>
<td>Still receiving services at time of data extract</td>
<td>23.6</td>
<td>28.0</td>
</tr>
<tr>
<td>Of those employed at closure</td>
<td>N=158</td>
<td>N = 1,622</td>
</tr>
<tr>
<td>Wages at closure</td>
<td>$8.02</td>
<td>$8.54</td>
</tr>
<tr>
<td>Weekly hours worked at closure</td>
<td>22.11</td>
<td>24.76</td>
</tr>
<tr>
<td>Weekly earnings at closure</td>
<td>$182.86</td>
<td>$218.92</td>
</tr>
</tbody>
</table>

Conclusions

Implications for Practice

The results of this evaluation of a comprehensive multi-site transition intervention offer several implications and recommendations for rehabilitation practice. First, it appears that early case initiation may have a positive impact on service outcomes for transitioning youth, a finding consistent with the new WIOA regulations requiring more active outreach and case referral by VR counselors of youth with disabilities eligible or potentially eligible for VR services while still enrolled in school.

Second, VR counselors might want to increase procurement and/or use of vocationally-oriented services (such as job search assistance and on the job supports), as these employment-related services appear to lead to more successful case closures for youth, and these services are included in the description of Pre-employment Transition Services in WIOA. It further suggests that of the five categories of Pre-employment Transition Services allowed under WIOA, work-based experience should be a priority as VR counselors authorize these services for students and youth on their caseloads.

A final and critical implication for rehabilitation practice is the value of inter-agency collaboration, also a requirement of WIOA, as these results suggest that VR service costs can be reduced when braided with school and other community resources. We anticipate an expanded role for VR counselors in active participation on inter-agency teams as they move forward to implement WIOA regulations, and improve employment outcomes for students and youth with disabilities.
**Future Research**

The study demonstrated that strategic management of existing services and resources (early VR case initiation, work-focused experiences, and outcome-oriented service collaboration) yielded better service outcomes at less service cost for VR service recipients. Future research using a more rigorous research design should explore the long-term benefits of comprehensive transition interventions on youth wages over time, reduction in public benefits use, and increases in financial independence.
References


About the Authors

Richard Luecking, Ed.D. is a research professor and Ellen Fabian, Ph.D. is a professor at the University of Maryland, a partner with TransCen in the RRTC on VR Practices and Youth. They are co-leading selected research studies under the auspices of the RRTC.

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