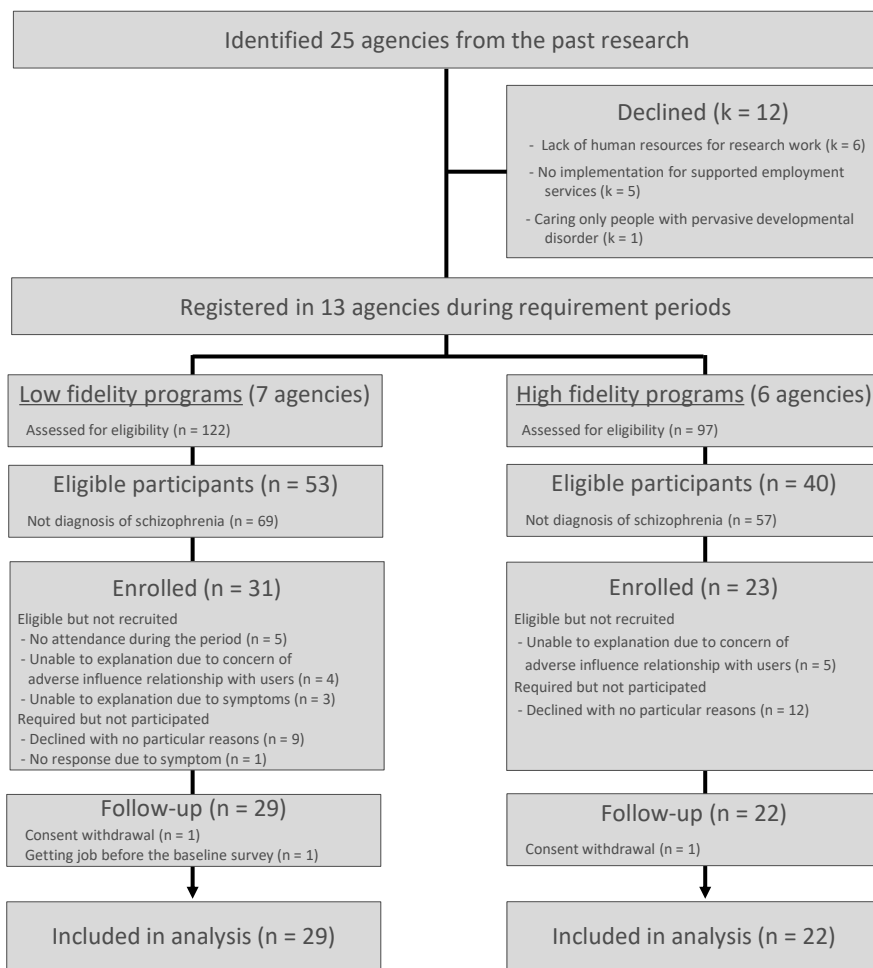


**Supplementary Figure 1: Flow diagram of recruitment process****Explanation of recruitment process**

We identified 25 agencies, which at least partly provided supported employment programs for people with mental illness, from previous fidelity research. Six agencies could not participate in this study due to a lack of human resources for research work. Five no longer implemented supported employment services, and one cared only for people with pervasive developmental disorders. Of the twelve non-participating agencies, eight were community employment service agencies and the rest were in medical institutions. Thirteen programs participated in the study.

During the recruitment period, 93 clients met the inclusion criteria. The low-fidelity and high-fidelity groups had 31 and 23 consenting participants (consent rates 58.4% vs. 57.5%), respectively. About half of those who declined voluntary participation did not provide a particular reason. For a quarter of the non-participants, the staff did not explain the study because participation may have jeopardized therapeutic relationships. One subject from each group withdrew consent, and one in the low-fidelity group was excluded after violating the eligibility criteria during the follow-up period. Consequently, the analyses included 51 participants. There were no significant differences in demographic characteristics, the GAF score and the motivation scale score between the analysis sample and the drop-out sample.

**Supplementary Table 1: The codes in inventory sheets for employment specialist and case manager**

Employment specialist		Case manager	
Assessment	Outreach services Agency-based services Tel/Email services	Assessment	Outreach services Agency-based services Tel/Email services
Job counseling	Outreach services Agency-based services Tel/Email services	Individual life counseling	Outreach services Agency-based services Tel/Email services
Individual training for business skills	Outreach services Agency-based services Tel/Email services	Individual life skill training	Outreach services Agency-based services Tel/Email services
Job development	Outreach services Agency-based services Tel/Email services	Counseling for keeping job/ on-site job support	Outreach services Agency-based services Tel/Email services
Counseling to keep job/ on-site job support	Outreach services Agency-based services Tel/Email services	Managing services from other agencies	Outreach services Agency-based services Tel/Email services
Managing services from other agencies	Outreach services Agency-based services Tel/Email services	Managing services from other professionals in the same agencies	Outreach services Agency-based services Tel/Email services
Managing services from other professionals in the same agencies	Outreach services Agency-based services Tel/Email services	Case meetings	Outreach services Agency-based services Tel/Email services
Medical and living support from employment specialists	Outreach services Agency-based services Tel/Email services	Individual employment services (e.g., job counselling, job development)	Outreach services Agency-based services Tel/Email services
		Family support	Outreach services Agency-based services Tel/Email services
Other	Outreach services Agency-based services Tel/Email services	Other	Outreach services Agency-based services Tel/Email services
Group service	Work skills Cognitive rehabilitation Illness management Recreation & physical activities	Group services	Work skills Cognitive rehabilitation Illness management Recreation & physical activities

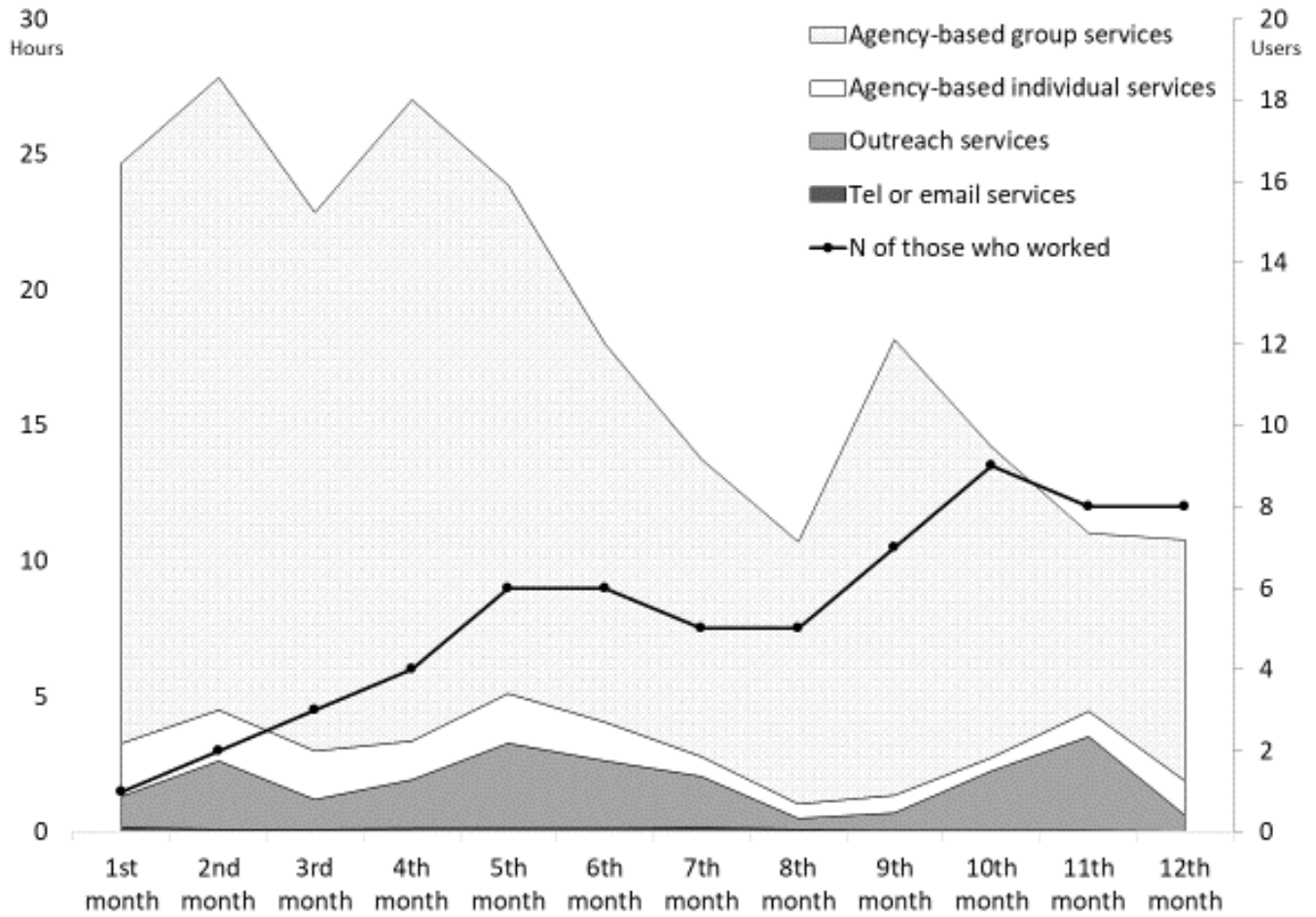
***Detailed explanation about use of service hours that combine employment specialists and case managers***

In the analysis, we used service hours, which combine employment specialists and case managers, as the dependent variable rather than employment specialist only. Integration of vocational and mental health services is an essential factor for effective supported employment services as shown in both fidelity scales (items #4 and #5 in IPS-25 and JiSEF) (10, 11). Particularly in an interdisciplinary team, case managers are expected to provide support to users' new needs that arise during their job-hunting activities and work life (30, 31).

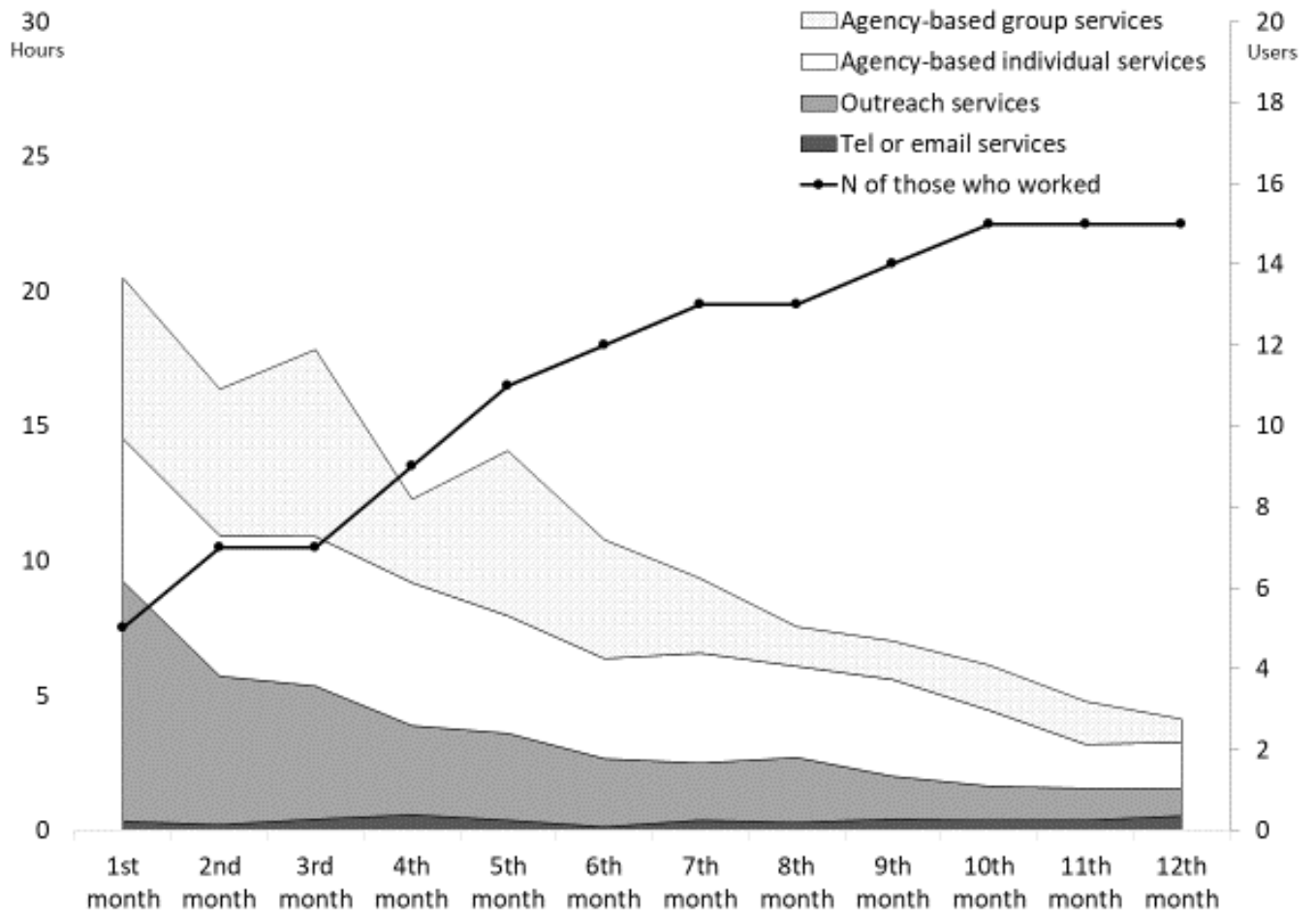
**Supplementary Table 2: Total service hours per month between groups during 12-month study period**

	Low-fidelity group (n = 29)			High-fidelity group (n = 22)		
	Mean	SD	Percentage of total	Mean	SD	Percentage of total
<b>Total</b>	<b>18.6</b>	<b>17.1</b>		<b>10.9</b>	<b>7.7</b>	
- Employment specialist	13.2	17.8		6.2	3.3	
- Case manager	5.4	7.3		4.7	6.6	
<b>Tel or E-mail services</b>	<b>0.1</b>	<b>0.1</b>	<b>0.5%</b>	<b>0.4</b>	<b>0.4</b>	<b>3.5%</b>
- Employment specialist	0.1	0.1		0.3	0.3	
- Case manager	0.0	0.1		0.1	0.3	
<b>Outreach services</b>	<b>1.8</b>	<b>2.5</b>	<b>9.6%</b>	<b>3.2</b>	<b>2.1</b>	<b>29.0%</b>
- Employment specialist	1.7	2.6		2.9	1.8	
- Case manager	0.1	0.2		0.3	0.5	
<b>Agency-based individual services</b>	<b>1.2</b>	<b>0.7</b>	<b>6.7%</b>	<b>3.9</b>	<b>3.9</b>	<b>35.6%</b>
- Employment specialist	1.0	0.7		1.9	1.6	
- Case manager	0.3	0.4		1.9	4.1	
<b>Agency-based group services</b>	<b>15.4</b>	<b>14.8</b>	<b>83.2%</b>	<b>3.5</b>	<b>3.9</b>	<b>31.9%</b>
- Employment specialist	10.4	15.3		1.1	1.5	
- Case manager	5.1	7.1		2.4	3.3	

**Supplementary Figure 2: Service process in the LOW-fidelity supported employment programs**



**Supplementary Figure 3: Service process in the HIGH-fidelity supported employment programs**



Supplementary Table 3: Hours for each category at each month in the low-fidelity group

	1st month		2nd month		3rd month		4th month		5th month		6th month		7th month		8th month		9th month		10th month		11th month		12th month	
<b>Low-fidelity group (n = 29)</b>																								
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Tel or email services</b>	<b>0.2</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.3</b>	<b>0.1</b>	<b>0.3</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>	<b>0.5</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>
- Employment specialist	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.3	0.1	0.3	0.1	0.2	0.2	0.5	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1
- Case manager	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
<b>Outreach services</b>	<b>1.1</b>	<b>3.0</b>	<b>2.5</b>	<b>5.7</b>	<b>1.1</b>	<b>1.6</b>	<b>1.8</b>	<b>3.8</b>	<b>3.1</b>	<b>6.5</b>	<b>2.5</b>	<b>4.6</b>	<b>1.9</b>	<b>4.9</b>	<b>0.4</b>	<b>1.4</b>	<b>0.6</b>	<b>1.5</b>	<b>2.2</b>	<b>6.5</b>	<b>3.5</b>	<b>9.6</b>	<b>0.6</b>	<b>1.3</b>
- Employment specialist	1.1	3.0	2.5	5.8	1.0	1.6	1.7	3.8	3.0	6.5	2.4	4.5	1.9	4.9	0.4	1.4	0.6	1.5	2.2	6.5	3.4	9.6	0.6	1.3
- Case manager	0.1	0.3	0.1	0.4	0.1	0.4	0.1	0.4	0.1	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
<b>Agency-based individual services</b>	<b>2.0</b>	<b>2.1</b>	<b>1.9</b>	<b>1.7</b>	<b>1.8</b>	<b>1.9</b>	<b>1.4</b>	<b>1.5</b>	<b>1.9</b>	<b>2.5</b>	<b>1.4</b>	<b>2.1</b>	<b>0.7</b>	<b>1.0</b>	<b>0.5</b>	<b>0.8</b>	<b>0.6</b>	<b>1.1</b>	<b>0.5</b>	<b>0.9</b>	<b>0.9</b>	<b>1.8</b>	<b>1.3</b>	<b>2.8</b>
- Employment specialist	1.7	2.1	1.5	1.7	1.1	1.4	0.9	1.3	1.4	1.9	1.2	2.0	0.6	1.0	0.5	0.8	0.4	1.1	0.3	0.5	0.8	1.7	1.2	2.8
- Case manager	0.3	0.6	0.3	0.6	0.7	1.3	0.5	0.9	0.5	1.2	0.2	0.5	0.1	0.3	0.0	0.1	0.2	0.5	0.2	0.7	0.1	0.4	0.1	0.2
<b>Agency-based group services</b>	<b>21.4</b>	<b>24.9</b>	<b>23.3</b>	<b>28.9</b>	<b>19.9</b>	<b>19.7</b>	<b>23.7</b>	<b>26.7</b>	<b>18.8</b>	<b>20.2</b>	<b>14.0</b>	<b>18.1</b>	<b>11.0</b>	<b>16.6</b>	<b>9.7</b>	<b>15.9</b>	<b>16.8</b>	<b>27.3</b>	<b>11.4</b>	<b>19.0</b>	<b>6.6</b>	<b>9.6</b>	<b>8.9</b>	<b>16.4</b>
- Employment specialist	16.0	23.3	16.7	29.1	12.1	18.4	14.3	26.3	12.9	21.5	9.4	16.4	6.8	14.3	6.0	13.2	12.7	27.0	7.8	17.5	3.6	6.2	6.2	15.0
- Case manager	5.4	12.0	6.7	11.1	7.7	12.0	9.3	15.6	5.9	9.3	4.6	8.8	4.2	8.1	3.7	8.9	4.1	9.9	3.6	9.6	3.0	6.7	2.7	7.0
Cumulative sum of service time (%)	11%		24%		34%		46%		57%		65%		71%		76%		84%		90%		95%		100%	
<b>High-fidelity group (n = 22)</b>																								
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Tel or email services</b>	<b>0.3</b>	<b>0.6</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>0.6</b>	<b>0.6</b>	<b>0.8</b>	<b>0.4</b>	<b>0.4</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>0.6</b>	<b>0.3</b>	<b>0.8</b>	<b>0.4</b>	<b>0.7</b>	<b>0.4</b>	<b>0.7</b>	<b>0.4</b>	<b>0.8</b>	<b>0.6</b>	<b>1.3</b>
- Employment specialist	0.2	0.5	0.2	0.3	0.4	0.6	0.5	0.7	0.3	0.4	0.2	0.3	0.3	0.6	0.1	0.2	0.3	0.4	0.3	0.5	0.2	0.6	0.2	0.4
- Case manager	0.1	0.4	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.3	0.2	0.8	0.2	0.5	0.1	0.4	0.2	0.5	0.3	1.2
<b>Outreach services</b>	<b>8.9</b>	<b>8.7</b>	<b>5.5</b>	<b>6.5</b>	<b>4.9</b>	<b>6.6</b>	<b>3.3</b>	<b>2.8</b>	<b>3.2</b>	<b>4.2</b>	<b>2.5</b>	<b>4.1</b>	<b>2.1</b>	<b>2.9</b>	<b>2.4</b>	<b>3.5</b>	<b>1.6</b>	<b>2.8</b>	<b>1.3</b>	<b>2.4</b>	<b>1.2</b>	<b>2.5</b>	<b>1.0</b>	<b>1.3</b>
- Employment specialist	8.4	8.9	5.1	6.0	4.7	6.4	3.2	2.8	2.6	3.4	2.2	3.8	1.8	2.4	2.3	3.5	1.2	2.7	1.2	2.4	1.1	2.2	0.9	1.3
- Case manager	0.5	1.4	0.4	1.2	0.3	0.7	0.1	0.2	0.7	2.1	0.3	0.9	0.3	1.0	0.1	0.6	0.4	1.1	0.1	0.5	0.1	0.4	0.0	0.2
<b>Agency-based individual services</b>	<b>5.3</b>	<b>4.4</b>	<b>5.2</b>	<b>7.1</b>	<b>5.5</b>	<b>9.9</b>	<b>5.3</b>	<b>10.3</b>	<b>4.3</b>	<b>9.2</b>	<b>3.7</b>	<b>4.5</b>	<b>4.1</b>	<b>5.6</b>	<b>3.4</b>	<b>7.0</b>	<b>3.6</b>	<b>7.5</b>	<b>2.8</b>	<b>4.0</b>	<b>1.6</b>	<b>2.3</b>	<b>1.7</b>	<b>3.2</b>
- Employment specialist	3.3	2.8	3.0	2.8	2.7	3.4	2.3	2.3	1.6	1.8	2.3	3.4	2.2	3.4	1.4	1.7	1.0	1.6	1.3	1.9	1.2	2.2	1.0	1.6
- Case manager	2.0	4.7	2.2	7.2	2.8	9.9	3.0	10.5	2.8	9.0	1.4	3.6	1.9	4.7	2.1	6.5	2.5	7.1	1.5	3.8	0.4	1.1	0.7	2.8
<b>Agency-based group services</b>	<b>5.9</b>	<b>6.6</b>	<b>5.4</b>	<b>6.6</b>	<b>6.9</b>	<b>10.5</b>	<b>3.1</b>	<b>4.5</b>	<b>6.1</b>	<b>8.5</b>	<b>4.4</b>	<b>7.6</b>	<b>2.8</b>	<b>4.9</b>	<b>1.5</b>	<b>4.3</b>	<b>1.4</b>	<b>3.5</b>	<b>1.7</b>	<b>4.1</b>	<b>1.6</b>	<b>3.9</b>	<b>0.9</b>	<b>2.9</b>
- Employment specialist	2.9	4.4	3.6	5.1	2.8	6.7	0.5	1.2	1.0	2.9	0.6	1.9	0.2	0.5	0.0	0.2	0.1	0.6	0.1	0.5	1.1	3.7	0.5	2.5
- Case manager	3.1	5.3	1.9	3.9	4.2	9.4	2.6	4.6	5.1	8.3	3.8	6.6	2.6	4.8	1.4	4.3	1.3	3.5	1.6	4.1	0.5	1.7	0.4	1.7
Cumulative sum of service time (%)	16%		28%		42%		51%		62%		70%		77%		83%		88%		93%		97%		100%	

**Supplementary Table 4: Service hours during the work period for each category between the low- and high-fidelity groups (per month)**

	<u>Low-fidelity group</u> (n = 11)		<u>High-fidelity group</u> (n = 15)		<i>Generalized linear model</i> (Coefficient for group)		
	Mean	SD	Mean	SD	B	95% CI	p
<b>Total</b>	<b>8.6</b>	<b>12.3</b>	<b>3.6</b>	<b>3.2</b>			
- Employment specialist	4.1	5.2	2.3	1.9			
- Case manager	4.5	8.8	1.3	2.2			
<b>Tel or E-mail services</b>	<b>0.2</b>	<b>0.2</b>	<b>0.4</b>	<b>0.5</b>			
- Employment specialist	0.1	0.2	0.3	0.3			
- Case manager	0.0	0.0	0.1	0.4			
<b>Outreach services</b>	<b>1.3</b>	<b>1.9</b>	<b>1.2</b>	<b>1.1</b>	<b>-.2</b>	<b>-1.1, .8</b>	<b>.715</b>
- Employment specialist	1.3	1.9	1.1	1.1			
- Case manager	0.0	0.0	0.1	0.1			
<b>Agency-based individual services</b>	<b>1.0</b>	<b>1.3</b>	<b>1.5</b>	<b>2.0</b>	<b>.5</b>	<b>-.5, 1.5</b>	<b>.343</b>
- Employment specialist	0.8	1.2	0.7	0.6			
- Case manager	0.2	0.3	0.8	1.7			
<b>Agency-based group services</b>	<b>6.1</b>	<b>11.4</b>	<b>0.5</b>	<b>0.9</b>	<b>-5.6</b>	<b>-11.8, 0.6</b>	<b>.076</b>
- Employment specialist	1.8	3.8	0.2	0.5			
- Case manager	4.3	8.6	0.2	0.5			