

Sunderji, N. et al. Systematic Review of Integrated Care Education. Supplemental File.

#### **Search Strategy for Published & Unpublished Literature:**

We searched numerous electronic databases including:

- MEDLINE, EMBASE, PsychInfo, CINAHL, ERIC, Health Management Information Consortium (HMIC), Research and Development Resource Base (RDRB) and Topics in Medical Education (TIMELIT)
- Evidence-based medicine databases: Cochrane, EBM Reviews, Campbell Collaboration, Centre for Reviews and Dissemination, Agency for Healthcare Research and Quality, ACP Journal Club, Database of Abstracts of Reviews of Effectiveness (DARE)

We also identified additional published literature by reviewing the reference lists of relevant articles (using Science Citation Index and hand searching), forward citations of relevant articles (using ISI Web of Science/Web of Knowledge or Google Scholar), and tables of contents of journals that have published two or more relevant articles.

Recognizing that many integrated care curricula may be unpublished, we used a number of mechanisms to search unpublished literature sources. We reviewed:

- The first 100 results from a specific search string in Google.
- Websites of: Academy of Psychosomatic Medicine, American Psychiatric Association (webpages on Integrated Care), Canadian Collaborative Mental Health Initiative, Centre for the Advancement of Interprofessional Education, MedEdPORTAL, Substance Abuse and Mental Health Services Association Center for Integrated Health Solutions, University of Washington Advancing Integrated Mental Health Solutions
- Abstracts from conferences including: Academy of Psychosomatic Medicine, Association for Academic Psychiatry, Canadian Collaborative Mental Health Care Conference, Canadian Conference on Medical Education
- Key authors identified in the search of published literature and consulted with experts in the field and professional contacts where necessary and available.

#### **Sample Search String:**

Medline to 08-Aug-2014 (this was later updated to August 2015, however the citation numbers below reflect the original search):

1. exp Patient Care Team/
2. exp "Delivery of Health Care"/
3. consultation liaison.mp.

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4. (share adj3 care).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]
5. (integrat\* adj3 care).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]
6. (collaborat\* adj3 care).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]
7. exp Interprofessional Relations/
8. exp Education/
9. interprofessional education.mp
10. exp Psychiatry/
11. exp Mental Health/
12. exp Mental Health Services/
13. exp Mental Disorders/
14. (mental adj2 ill\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]
- 15.exp Education, Medical, Graduate/
16. exp "Internship and Residency"/
17. exp Education, Medical, Continuing/
18. postgraduate.mp.
19. fellow.mp.
- .
20. 7 and 8
21. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 9 or 20
22. 10 or 11 or 12 or 13 or 14
23. 15 or 16 or 17 or 18 or 19
24. 21 and 22 and 23
25. limit 24 to (english or french)
26. remove duplicates from 25
27. limit 26 to abstracts
28. 26 not 27

2306 results

Remove duplicates

2302 results

1562 (with abstracts)

740 (no abstracts)

Unpublished U.S. residency programs:

The unpublished U.S. residency programs that are known to provide training in integrated care are described in Table 5. We contacted 27 U.S. residency programs regarding 34 distinct educational experiences. The three included programs responded to our email invitation and met all inclusion criteria.

Table 5. U.S. residency programs training in integrated care

	Included	Excluded
Number of Studies	3	31
Settings	Primary care (urban) (2) Primary care (rural) via telepsychiatry (1)	Primary care (19) <sup>‡</sup> Specialist clinics <ul style="list-style-type: none"><li>• Women’s health or obstetrics (8)</li><li>• Internal medicine, infectious disease, HIV (7)</li><li>• Oncology (5)</li><li>• Neurology (3)</li><li>Pain (3)</li><li>Pediatrics (1)</li></ul>
Participants	Junior and senior residents (1) Senior residents only (2)	Junior residents (11) Senior residents (34) Fellows (6)
Duration of training	Longitudinal (2) <ul style="list-style-type: none"><li>• 6-11 months (2)</li></ul> Block <ul style="list-style-type: none"><li>• 1 month (1)</li></ul>	Longitudinal (24) <ul style="list-style-type: none"><li>• 3-6 months (8)</li><li>• 6-11 months (7)</li><li>• 12 months (9)</li></ul> Block (3)

<sup>‡</sup>Total exceeds 31 as some programs involve more than one clinical setting.

		<ul style="list-style-type: none"> <li>• &lt;1 month (2)</li> <li>• &gt;1 month (1)</li> </ul> <p>Didactic only (2)</p>
Content/ activities	<p>Clinical and didactic combination (3)</p> <ul style="list-style-type: none"> <li>• Didactic includes: assigned readings, case-based seminars, journal club, lectures,</li> </ul>	<p>Clinical and didactic combination (28)</p> <p>Clinical only (1)</p> <p>Didactic only (2)</p> <ul style="list-style-type: none"> <li>• Didactic includes: assigned readings, case-based seminars, conferences, journal club, lectures</li> </ul>
Core or elective	<p>Core (1)</p> <p>Core and elective mixed (2)</p>	<p>Core (17)</p> <p>Elective (9)</p> <p>Core and elective (3)</p> <p>Unknown (2)</p>
Co-Learners (all residents)	<p>Internal medicine (1)</p>	<p>Internal medicine (3)</p> <p>Obstetrics (1)</p> <p>Family medicine (1)</p>
Resources required	<p>Staff Supervision</p> <ul style="list-style-type: none"> <li>• On-site Direct (2)<sup>2</sup></li> <li>• On-site Indirect (1)</li> </ul>	<p>Staff Supervision</p> <ul style="list-style-type: none"> <li>• On-site Direct (13)</li> <li>• On-site Indirect (8)</li> <li>• Remote (2)</li> <li>• Little to None (1)</li> </ul>
Challenges	<p>Resources/Funding (1)</p> <p>Limited Staff Supervision (2)</p> <p>Limited Patient Volume (2)</p> <p>Telepsychiatry Technical Issues (1)</p>	<p>Resources/Funding (10)</p> <p>Limited Staff Supervision (6)</p> <p>Interprofessional Issues (5)</p> <p>Scheduling Conflicts (4)</p> <p>Limited Patient Volume (3)</p> <p>Excessive Patient Volume (2)</p> <p>Complex Patients (1)</p> <p>Telepsychiatry Technical Issues (1)</p>
Outcomes (Kirkpatrick level)	<p>Reaction/satisfaction (3)</p> <p>Learning (3)</p>	<p>Reaction/satisfaction (20)</p> <p>Learning (13)</p> <p>Behavior (1)</p>

<sup>2</sup> Direct supervision includes direct observation of the resident providing clinical care, whereas indirect supervision includes reviewing clinical care at a separate time from the patient visit.

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**Critical appraisal of included literature - MERSQI Scores**

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<u>First Author (Last Name)</u>	<u>Study Design</u>	<u>Sampling - Number of institutions studied</u>	<u>Sampling - Response rate, %</u>	<u>Type of Data</u>	<u>Validity of evaluation instrument - Internal Structure</u>	<u>Validity of evaluation instrument - Content</u>	<u>Validity of evaluation instrument - Relationships to other variables</u>	<u>Data analysis - Appropriateness of analysis</u>	<u>Data analysis - Complexity of analysis</u>	<u>Total MERSQI Score</u>
<u>Cowley</u>	<u>1</u>	<u>0.5</u>	<u>1.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>9</u>
<u>DeGaetano</u>	<u>1</u>	<u>0.5</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>6</u>
<u>Engel</u>	<u>1</u>	<u>0.5</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>6.5</u>
<u>Henrich</u>	<u>1</u>	<u>0.5</u>	<u>1.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>8</u>
<u>Huang</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>7.5</u>
<u>Kates</u>	<u>1</u>	<u>0.5</u>	<u>0.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>5</u>
<u>McMahon</u>	<u>1</u>	<u>0.5</u>	<u>0.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>6</u>
<u>Merkel</u>	<u>1</u>	<u>0.5</u>	<u>0.5</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>9</u>
<u>Naimer</u>	<u>1</u>	<u>0.5</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>7.5</u>
<u>Ratzliff</u>	<u>1.5</u>	<u>0.5</u>	<u>0.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>7</u>
<u>Rockman</u>	<u>1</u>	<u>0.5</u>	<u>0.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>5</u>
<u>Sunderji</u>	<u>1</u>	<u>0.5</u>	<u>0.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>6</u>
<u>Teshima</u>	<u>1</u>	<u>0.5</u>	<u>1.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>7.5</u>
<u>Williams</u>	<u>1</u>	<u>0.5</u>	<u>0.5</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>8</u>