IMPACT (Improving Mood--Promoting Access to Collaborative Treatment)

IMPACT (Improving Mood--Promoting Access to Collaborative Treatment) is an intervention for adult patients who have a diagnosis of major depression or dysthymia, often in conjunction with another major health problem. The IMPACT model is a collaborative, stepped-care approach in which a trained depression care manager (DCM)--usually a nurse, social worker, or psychologist--works with the patient, the patient's primary care provider, and a psychiatrist to develop and administer a course of treatment.

At the beginning of the intervention, the patient meets with the DCM and receives a 20-minute educational video and a booklet about late-life depression. During this meeting, the DCM completes an initial assessment of the patient's depressive symptoms, encourages the patient to engage in behavioral activation (e.g., physical activity, pleasant events), and discusses options for treatment over the next 10-12 weeks (i.e., the first treatment step): antidepressant medication or a course of six to eight sessions of psychotherapy (e.g., Problem Solving Treatment in Primary Care) delivered by the DCM in a primary care setting. For patients already taking antidepressant medication, treatment can include increasing the dose, augmenting the medication with a course of psychotherapy, or switching to a different medication or psychotherapy. The DCM then works with the patient and the patient's primary care provider to establish the treatment plan.

In addition to meeting with the patient, the DCM has weekly meetings with a supervising team psychiatrist to discuss new patients and patients who have not had a significant improvement in depressive symptoms 10-12 weeks after the start of treatment. If a patient has not significantly improved, the treatment plan is changed with the agreement of the patient and the patient's primary care provider, and the new treatment is delivered for another 10-12 weeks (i.e., the second treatment step). If a patient has significantly improved, the DCM follows up with the patient via monthly phone calls to provide maintenance support (i.e., the third treatment step). Depending on the patient's level of improvement, these support calls may be continued for up to a year from the beginning of treatment.

In the studies reviewed for this summary, IMPACT was implemented with the following populations:

- Patients who were 18 years and older and had a diagnosis of major depression or dysthymia as well as comorbid cancer and/or diabetes.
- Patients who were 60 years or older and had a diagnosis of major depression or dysthymia alone or in conjunction with comorbid panic disorder, posttraumatic stress disorder, mild cognitive impairment, and/or chronic medical illnesses.

### Descriptive Information

<table>
<thead>
<tr>
<th>Areas of Interest</th>
<th>Mental health treatment</th>
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<td><strong>Outcomes</strong></td>
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<td>3: Health-related quality of life</td>
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<td></td>
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<tr>
<td><strong>Outcome Categories</strong></td>
<td>Employment</td>
</tr>
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<td></td>
<td>Family/relationships</td>
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<td>Mental health</td>
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<td></td>
<td>Social functioning</td>
</tr>
<tr>
<td><strong>Ages</strong></td>
<td>18-25 (Young adult)</td>
</tr>
<tr>
<td></td>
<td>26-55 (Adult)</td>
</tr>
<tr>
<td></td>
<td>55+ (Older adult)</td>
</tr>
</tbody>
</table>
### Quality of Research

**Review Date:** June 2012

<table>
<thead>
<tr>
<th>Documents Reviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.</td>
</tr>
</tbody>
</table>

**Study 1**


**Study 2**


**Study 3**


**Supplementary Materials**

_Psychometric information. (2012)._  

**Outcomes**

<table>
<thead>
<tr>
<th>Outcome 1: Severity of depression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of Measures</strong></td>
</tr>
</tbody>
</table>

Key Findings

In a 12-month study conducted at nine primary care clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Pathways case management intervention, which incorporated the IMPACT model, and patients in the control group received usual care (i.e., they were advised to consult with their primary care provider regarding issues related to depression). Data were collected at baseline and at 3, 6, and 12 months after baseline. Patients in the intervention group had lower levels of depression severity relative to patients in the control group at the 6-month (p = .04) and 12-month (p = .03) assessments of the HSCL-90.

In an 18-month study conducted at two public community clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Multifaceted Diabetes and Depression Program, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard clinic care as well as patient- and family-focused depression educational pamphlets and a list of community, financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, and 18 months after baseline. Patients in the intervention group had lower levels of depression severity relative to patients in the control group, at the 6-month (p < .001), 12-month (p < .001), and 18-month (p < .001) assessments of the HSCL-90.

In a 24-month study conducted at outpatient oncology clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid cancer were randomly assigned to the intervention or control group. Patients in the intervention group received the Alleviating Depression Among Patients With Cancer intervention, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard oncology care and were given patient- and family-focused depression and cancer educational pamphlets and a list of center/community financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, 18, and 24 months after baseline. Patients in the intervention group had lower levels of depression severity relative to patients in the control group, at the 12-month (p < .05) and 24-month (p < .05) assessments of the PHQ-9.

Studies Measuring Outcome

Study 1, Study 2, Study 3

Study Designs

Experimental

Quality of Research Rating

3.8 (0.0-4.0 scale)

Outcome 2: Functional impairment

Description of Measures

Functional impairment was assessed with the Sheehan Disability Scale, which is composed of 3 questions that assess the extent to which the patient's health has interfered with work ("To what extent has your health interfered with your work, including paid work or work around the house, in the past month?"); family life/home responsibilities ("To what extent has your health interfered with your family life, in the past month?"); and social life ("To what extent has your health interfered with your social life or relationships with others outside of your family, in the past month?"). Respondents rate each item on a scale ranging from 0 (not at all) to 10 (unable to carry on any activities).

Key Findings

In an 18-month study conducted at two public community clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Multifaceted Diabetes and Depression Program, which incorporated the IMPACT model, and patients in the control group...
received enhanced usual care (i.e., they received standard clinic care as well as patient- and family-focused depression educational pamphlets and a list of community, financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, and 18 months after baseline. From baseline to the 18-month assessment, patients in the intervention group had a greater improvement in functional impairment relative to patients in the control group (p = .04). At the 6-month assessment, patients in the intervention group had lower levels of functional impairment than patients in the control group (p = .01); no significant difference was found between the two groups at the 12- and 18-month assessments.

**Outcome 3: Health-related quality of life**

**Description of Measures**

Health-related quality of life was assessed using two measures:

- The Medical Outcomes Study 12-Item Short-Form Health Survey (SF-12), which asks respondents about their views on their health and includes items that compose physical (e.g., "During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?") mental (e.g., "During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems [such as feeling depressed or anxious]") and pain (e.g., "During the past 4 weeks, how much did pain interfere with your normal work [including both work outside the home and housework]?") components. Depending on the item, respondents use a 2-point scale with options of "yes" or "no" or a 6-point scale ranging from "all of the time" to "none of the time."
- The Functional Assessment of Cancer Therapy-General (FACT-G) scale, a 27-item questionnaire with items for physical well-being (e.g., "I have a lack of energy"), social/family well-being (e.g., "I get emotional support from my family"), emotional well-being (e.g., "I feel nervous"), and functional well-being (e.g., "I am able to enjoy life") subscales. Respondents rate each item on a scale ranging from 0 (not at all) to 4 (very much).

**Key Findings**

In an 18-month study conducted at two public community clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Multifaceted Diabetes and Depression Program, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard clinic care as well as patient- and family-focused depression educational pamphlets and a list of community, financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, and 18 months after baseline. From baseline to the 18-month assessment, patients in the intervention group had a greater improvement relative to patients in the control group in the physical (p = .04), mental (p < .001), and pain (p < .001) components of the SF-12. Patients in the intervention group had better health-related quality of life relative to patients in the control group as reflected by the physical (p = .04), mental (p < .001) and pain (p = .001) components of the SF-12 at the 6-month assessment and the mental component of the SF-12 at the 12-month (p < .001) and 18-month (p = .03) assessments.

In a 24-month study conducted at outpatient oncology clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Alleviating Depression Among Patients With Cancer intervention, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard oncology care and were given patient- and family-focused depression and cancer educational pamphlets and a list of center/community financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, 18, and 24 months after baseline. Patients in the intervention group had improved health-related quality of life relative to patients in the control group, as indicated by the following results:

- At the 6-month assessment, relative to patients in the control group, those in the intervention group had improvements in the mental component of the SF-12 (p < .05) and the physical well-being (p < .05) and functional well-being (p < .05) subscales of the FACT-G.
- At the 12-month assessment, relative to patients in the control group, those in the intervention group had improvements in the physical (p < .05) and pain (p < .05) components of the SF-12.
- At the 18-month assessment, relative to patients in the control group, those in the intervention group had improvements in the physical well-being (p < .05) and functional well-being (p < .05) subscales of the FACT-G.
- At the 24-month assessment, relative to patients in the control group, those in the intervention group had improvements in the social/family well-being (p < .05) and functional well-being (p < .05) subscales of the FACT-G.

### Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see [Quality of Research](#).
Study Strengths
All measures are well established and widely used in the field, and they are supported by ample data from independent investigators showing acceptable levels of all relevant forms of reliability and validity. In all studies, a substantial number of methods were used to maximize levels of intervention fidelity; for example, treatment was structured and followed a stepped-care approach, audio recordings of treatment sessions were reviewed, and frequent supervisory team meetings were held. A Web-based clinical training system also was used with patients in real time to help ensure fidelity. Missing data and attrition were minimal and thoroughly described. There were no significant baseline differences between study groups on any variable. Sophisticated statistical methods, including imputational analysis, were used to explore whether missing data and attrition influenced the findings. The limitations of each study were addressed, and a number of methodological factors were used to prevent and control for confounding variables (e.g., randomized design, analysis of baseline characteristics, blinded raters). All studies had large sample sizes and used appropriate statistical analysis.

Study Weaknesses
In two of the studies, there was no evidence that the instrument used to assess fidelity was psychometrically tested. Some of the fidelity data from the Web-based clinical training system were not discussed.

Review Date: August 2007
Documents Reviewed
The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1


Supplementary Materials


Information on psychometric properties and reference list

Outcomes

<table>
<thead>
<tr>
<th>Outcome 1: Severity of depression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of Measures</strong></td>
</tr>
<tr>
<td>Severity of depression was assessed using the Hopkins Symptom Checklist, a self-rating scale for depression symptoms. The scale for each question includes four responses--&quot;not at all,&quot; &quot;a little,&quot; &quot;quite a bit,&quot; &quot;extremely&quot;--rated 1 to 4, respectively.</td>
</tr>
<tr>
<td><strong>Key Findings</strong></td>
</tr>
<tr>
<td>At all three follow-up points after the intervention (12, 18, and 24 months), IMPACT participants reported a lower severity of depression than participants assigned to usual care (p &lt; .0001 at all three points). Usual care consisted of continuing care through the participant's primary care</td>
</tr>
</tbody>
</table>
Studies Measuring Outcome | Study 1  
Study Designs | Experimental  
Quality of Research Rating | 3.8 (0.0-4.0 scale)

Outcome 2: Functional impairment

| Description of Measures | Functional impairment was assessed by an index developed from the Sheehan Disability scale, a self-rated assessment that incorporates impairment with work, family, and other social functioning. The index used a scale of 0 to 10, with higher scores indicating greater functional impairment. |
| Key Findings | At two of three follow-up times after the intervention (12 and 18 months), IMPACT participants reported less functional impairment than participants assigned to usual care (p < .0001 and p < .0009, respectively); no significant difference was found between groups at 24-month follow-up. Usual care consisted of continuing care through the participant's primary care provider, care through a mental health specialty provider of the participant's choosing, or no mental health treatment. |

Studies Measuring Outcome | Study 1  
Study Designs | Experimental  
Quality of Research Rating | 3.7 (0.0-4.0 scale)

Study Populations
The following populations were identified in the studies reviewed for Quality of Research.

<table>
<thead>
<tr>
<th>Study</th>
<th>Age</th>
<th>Gender</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>55+ (Older adult)</td>
<td>65% Female 35% Male</td>
<td>77% White 12% Black or African American 8% Hispanic or Latino 3% Race/ethnicity unspecified</td>
</tr>
</tbody>
</table>

Quality of Research Ratings by Criteria (0.0-4.0 scale)
External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures  
2. Validity of measures  
3. Intervention fidelity  
4. Missing data and attrition  
5. Potential confounding variables  
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see [Quality of Research](#).

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Reliability of Measures</th>
<th>Validity of Measures</th>
<th>Fidelity</th>
<th>Missing Data/Attrition</th>
<th>Confounding Variables</th>
<th>Data Analysis</th>
<th>Overall Rating</th>
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</thead>
<tbody>
<tr>
<td>1: Severity of depression</td>
<td>3.8</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
<td>3.8</td>
<td>4.0</td>
<td><strong>3.8</strong></td>
</tr>
<tr>
<td>2: Functional impairment</td>
<td>3.5</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
<td>3.8</td>
<td>4.0</td>
<td><strong>3.7</strong></td>
</tr>
</tbody>
</table>

Study Strengths
The measures used in the study have well-documented psychometric properties. Consistent supervision of intervention professionals...
Readiness for Dissemination
Review Date: August 2007

Costs suggest strong fidelity. The study had a reasonable and expected level of attrition that was well documented, and statistical adjustments were made for missing data. The use of multiple imputation in some analyses to address missing data is a strength. The study had a large sample size and used strong statistical analyses, supporting the conclusion that the outcomes were most likely due to the intervention.

Study Weaknesses
The intervention utilized measures with good psychometric properties; however, the use of a multimethod approach to evaluate outcome variables would have strengthened this body of research.

Readiness for Dissemination
Materials Reviewed
The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information regarding implementation of the intervention and the availability of additional, updated, or new materials.


Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)
External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

<table>
<thead>
<tr>
<th>Implementation Materials</th>
<th>Training and Support Resources</th>
<th>Quality Assurance Procedures</th>
<th>Overall Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Dissemination Strengths
Program materials are comprehensive, detailed, and user-friendly. They address clinical, administrative, financial, and patient issues related to the delivery of this intervention and are all available at no cost on an easy-to-use Web site. In-person, Webcast, and free interactive Web-based trainings are available to implementers. The program developer is available for telephone consultation and support throughout implementation. Recommended quality indicators, detailed treatment manuals, and evaluation support contribute to quality assurance.

Dissemination Weaknesses
No weaknesses were noted by reviewers.

Costs
The cost information below was provided by the developer. Although this cost information may have been updated by the developer since the time of review, it may not reflect the current costs or availability of items (including newly developed or discontinued items). The implementation point of contact can provide current information and discuss implementation requirements.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Cost</th>
<th>Required by Developer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation materials (includes needs assessment, implementation planning grid, information on key components and adaptations, job descriptions, cost and reimbursement information, planning tools, and additional resources)</td>
<td>Free</td>
<td>Yes</td>
</tr>
<tr>
<td>1- to 3-day, on-site training</td>
<td>$6,500-$15,000, depending on training length, content, and audience, plus travel expenses</td>
<td>Yes (one training option is required)</td>
</tr>
<tr>
<td>Online training</td>
<td>Free</td>
<td>Yes (one training option is required)</td>
</tr>
<tr>
<td>Service Description</td>
<td>Cost</td>
<td>Included?</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>1-hour Webinars for primary care providers and consulting psychiatrists</td>
<td>$750 for 3 Webinars</td>
<td>No</td>
</tr>
<tr>
<td>On-site booster training covering advanced topics</td>
<td>$6,500-$15,000, depending on training content and audience, plus travel expenses</td>
<td>No</td>
</tr>
<tr>
<td>Booster training Webinar covering advanced topics</td>
<td>$500 per Webinar</td>
<td>No</td>
</tr>
<tr>
<td>Preimplementation technical assistance via Webinar or phone (includes introductory information and team building support)</td>
<td>$250 per hour</td>
<td>Yes</td>
</tr>
<tr>
<td>Postimplementation technical assistance via Webinar or phone (includes ongoing support for care team members)</td>
<td>$250 per hour</td>
<td>Yes</td>
</tr>
<tr>
<td>Program evaluation consultation</td>
<td>$250 per hour</td>
<td>No</td>
</tr>
<tr>
<td>Online fidelity measure</td>
<td>Free</td>
<td>No</td>
</tr>
</tbody>
</table>

**Additional Information**

Start-up costs vary by the training option chosen by the organization and how the organization offers the program to patients (i.e., as a primary care-based program, as a component of an existing care management program).

**Replications**

Selected citations are presented below. An asterisk indicates that the document was reviewed for Quality of Research.


**Contact Information**

To learn more about implementation or research, contact:

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info@impact-uw.org

Jürgen Unützer, M.D., M.P.H., M.A.
(206) 543-3128
info@impact-uw.org
Consider these Questions to Ask (PDF, 54KB) as you explore the possible use of this intervention.

Web Site(s):

- [http://impact-uw.org](http://impact-uw.org)

This PDF was generated from http://nrepp.samhsa.gov/ViewIntervention.aspx?id=301 on 5/15/2014