

## Beck Depression Inventory (BDI)

Beck Depression Inventory (BDI-21)				
Study	Identification tool	Comparator	Population	Results
<i>Consultation</i>				
Dutton, <i>et al.</i> 2004  Quality assessed: ++	BDI-21	DSM-IV	N=220, age = 49 years, 105 male, 115 female  African American primary care patients  <i>Prevalence of depression - 63/220</i>	<b>Major depression</b> True Positive = 57 False Positive = 25 False Negative = 8 True Negative = 130
Laprise & Vezina, 1998  Quality assessed: +	BDI-21	DSM-III-R	N=66, age = 78 years, 31 male, 35 female  Nursing home residents, Canada (French)  <i>Prevalence of depression - 27/66</i>	<b>Major depression</b>  <b>Cut-off 10 - BDI</b> Sensitivity = 0.963 Specificity = 0.462
Whooley <i>et al.</i> , 1997  Quality assessed: +	BDI-30 item	DSM-III-Diagnostic Interview Schedule (DIS)	N = 543, mean age = 53 (S.D. 14), male 97%  Patients visiting urgent care clinic; San Francisco, US  <i>Prevalence of depression - 97/536</i>	<b>Major depression</b>  <b>Standard cut-off <math>\geq 10</math> - BDI-30 item:</b> AUC = 87% (82-91) Sensitivity = 89% (81-95) Specificity = 64% (59-68)
Yeung <i>et al.</i> , 2002  Quality assessed: +	BDI-21	DSM-III-R	N = 815, mean age = 50 years, 304 female, 199 male  Chinese-American primary care patients; US  <i>Prevalence of depression - 53/180</i>  <i>Only those who screened positive on the BDI and agreed to be interviewed for DSM and a selective sample of those who screened negative on the BDI were interviewed</i>	<b>Depression: major depressive disorder</b>  <b>Cut-off <math>\geq 16</math></b> Sensitivity = 79% Specificity = 91% PPV = 79% NPV = 91%

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Zich <i>et al.</i> , 1990  Quality assessed: +	BDI-21	DSM-III Diagnostic Interview Schedule (DIS)	N = 31  Primary care patients who completed both the BDI and DIS, San Francisco, US  [Does not give demographic information specific to this sub-group of patients]  <u>Prevalence of depression</u> - <b>3/31</b>	<b>Depressive disorders</b>  <b>Cut-off <math>\geq 10</math> - BDI</b> Sensitivity = 100% Specificity = 75%  <b>Cut-off <math>\geq 16</math> - BDI</b> Sensitivity = 100% Specificity = 89%
Community				
Viinamaki <i>et al.</i> , 1995  Quality assessed: +	BDI-13	DSM-III-R	N=55, mean age = 48 years  Participants recruited from a wood factory  <u>Prevalence of depression</u> - <b>23/55</b>	<b>Depression</b>  <b>Cut-off 8/9</b> Sensitivity = 61% Specificity = 78% PPV = 67% NPV = 74%  <b>Standard cut-off <math>\geq 10</math></b> Sensitivity = 45% Specificity = 84% PPV = 67% NPV = 68% <b>Cut-off 10/11</b> Sensitivity = 39% Specificity = 88% PPV = 69% NPV = 67%

Beck Depression Inventory- Short Form (BDI-SF); Beck Depression Inventory- Fast Screen (BDI-FS);				
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Parker <i>et al.</i> , 2002  Quality assessed: +	Beck Depression Inventory for Primary Care (BDI-PC)	DSM-IV (Composite International Diagnostic Interview - CIDI)	N= 302, mean age = 46.5 (SD = 12.9), 63.2% male  111 (36.8%) patients had chronic physical illness; mean duration = 9 years  Outpatients from: cardiology (29.5%) respiratory (23.2%) gastroenterology (11.6%) nephrology (14.9%) haematology (7.9%) rheumatology (5.0%) radiation oncology (4.6%) endocrinology (3.3%)  Australia, Sydney  <u>Prevalence of depression</u> - <b>14/160</b>	<b>Depression</b>  <b>Cut-off <math>\geq 4</math> - BDI-PC</b> AUC = 0.848 Sensitivity = 83.3% (62.2, 100) Specificity = 67.0% (57.4, 76.7)  <b>Optimal cut-off <math>\geq 5</math> - BDI-PC</b> AUC = 0.848 Sensitivity = 83.3% (62.2, 100) Specificity = 75.8% (67.0, 84.6)  <b>Cut-off <math>\geq 6</math> - BDI-PC</b> AUC = 0.848 Sensitivity = 66.7% (40.0, 90.3) Specificity = 82.4% (74.6, 90.2)
Scheinthal <i>et al.</i> , 2001  Quality assessed: ++	BDI-Fast Screen	DSM-IV	N=75, age = 74 years, 33 males, 42 females  US geriatric medical setting  <u>Prevalence of depression</u> - <b>8/75</b>	<b>Depression</b>  <b>Cut-off 4</b> Sensitivity = 1 Specificity = 0.84
Whooley <i>et al.</i> , 1997  Quality assessed: +	BDI-13	DSM-III-Diagnostic Interview Schedule (DIS)	N = 543, mean age = 53 (S.D. 14), 97% male  Patients visiting urgent care clinic, San Francisco, US  <u>Prevalence of depression</u> - <b>97/536</b>	<b>Major depression</b>  <b>Cut-off <math>\geq 5</math> - BDI-13 item</b> AUC = 86% (82-90) Sensitivity = 92% (85-97) Specificity = 61% (56-66)

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Wilhelm <i>et al.</i> , 2004  Quality assessed: +	Beck Depression Inventory for Primary Care (BDI-PC)	DSM-IV	N= 212, age range = 16 - 91 years; 55.2% female  Medical outpatients and inpatients, 2.8% neurological disorders, 25.5% cardiopulmonary disease, 9.4% malignancy, 12.3% loss of mobility, 13.7% endocrine disorder, 3.8% infectious & inflammatory disorder, 12.3% renal disease, 20.2% other disease  <u>Prevalence of depression (major depression) - 49/212</u>	<b>Major depression</b>  <b>BDI</b> AUC = 0.85 (79, 92) Sensitivity = 91% (73, 98) Specificity = 0.62 (0.55, 0.69)  <b>Any depression (major or minor)</b> <b>BDI</b> AUC = 0.86 (80, 91) Sensitivity = 0.87 (0.75, 0.94) Specificity = 0.69 (0.62, 0.76)  <b>Affective disorder</b> <b>BDI</b> AUC = 0.89 (84, 94) Sensitivity = 0.89 (0.77, 0.95) Specificity = 0.72 (0.64, 0.78)
<b>Community</b>				
Stukenberg <i>et al.</i> , 1990  Quality assessed: +	BDI - SF	DSM-III-R (SCID)	N=177 community dwelling adults, age range = 56 - 88 years, mean age = 67.4 (SD=7.20), 33% male  <u>Prevalence of depression (any)- 27/178</u>	<b>Any depression</b>  <b>BDI</b> AUC =0.82 (SE .06)  <b>Mild depression</b>  <b>Optimal cut-off<math>\geq</math> 5 - BDI-SF</b> Sensitivity = 0.71 Specificity = 0.83 PPV = 74%  <b>Moderate depression</b>  <b>Optimal cut-off<math>\geq</math> 8 - BDI-SF</b> Sensitivity = 0.59 Specificity = 0.93 PPV = 88%  <b>Severe depression</b>  <b>Optimal cut-off<math>\geq</math> 16 - BDI-SF</b> Sensitivity = 0.29 Specificity = 0.99 PPV = 99%
Viinamaki <i>et al.</i> , 1995  Quality assessed: +	BDI-13	DSM-III-R	N=55, mean age = 48 years  Participants recruited from a wood factory	<b>Depression</b>  <b>Cut-off 8/9</b> Sensitivity = 61% Specificity = 78% PPV = 67%

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			<i>Prevalence of depression</i> - 23/55	NPV = 74%  <b>Standard cut-off <math>\geq 10</math></b> Sensitivity = 45% Specificity = 84% PPV = 67% NPV = 68%  <b>Cut-off 10/11</b> Sensitivity = 39% Specificity = 88% PPV = 69% NPV = 67%