

**Appendix 1 (as supplied by authors):** Population and design features of PHQ-9 validation studies

Study	Setting, instrument and language	Diagnostic standard	Age, sex, sample size and % depressed	Quality criteria	Cut-off
Adewuya et al. <sup>34</sup>	Nigeria, community (university students), English	MINI	Age = 24.8 Male 58.8% N = 512 MDD = 2.5% (n = 13)	Sample = 1 Study design = 1 Timing = 1 Rater = 1 Blinding = ? Data integrity = 1 Cut-off = 1 Translation = 1	8 to 12
De lima Osorio et al. <sup>21</sup>	Brazil, females, primary care, Brazilian Portuguese translation	DSM SCID	Age = unclear Male 0% N = 177 MDD = 34% (n = 60)	Sample = 0 Study design = 0 Timing = ? Rater = 1 Blinding = ? Data integrity = 1 Cut-off = 1 Translation = 1	10 to 21
Fann et al. <sup>29</sup>	US, inpatients with head trauma, English	DSM SCID	Age = 42 Male = 69.6% N = 135 MDD = 16.3% (n = 22)	Sample = 0 Study design = 1 Timing = 1 Rater = 1 Blinding = ? Data integrity = 0 Cut-off = 1 Translation = 1	10
Gilbody et al. <sup>6</sup>	UK, primary care, English	DSM SCID	Age = 42.5 Male 22.9% N = 96 MDD = 37.5% (n = 36)	Sample = 0 Study design = 1 Timing = ? Rater = 1 Blinding = 1 Data integrity = 1 Cut-off = 1 Translation = 1	9 to 13
Gjerdincjen et al. <sup>35</sup>	US, English-literate mothers registering their 0 to 1 month old infants for well-child visits, medical or paediatric clinics, US English	DSM SCID	Age = 29.3 Male 0% N = 438 MDD = 4.6% (n = 20)	Sample = 1 Study design = 1 Timing = 1 Rater = 1 Blinding = ? Data integrity = 0 Cut-off = 1 Translation = 1	10
Grafe et al. <sup>36</sup>	Germany, psychosomatic, walk-in clinics and family practices patients, German	DSM SCID	Age = 41.9 Male 32.2 % N = 528 MDD = 29.2% (n = 50)(psychosomatic patients), MDD = 6.16% (n = 22) (medical patients)	Sample = 1 Study design = 1 Timing = ? Rater = 1 Blinding = 1 Data integrity = 0 Cut-off = 1 Translation = ?	10 to 14
Kroenke et al. <sup>3</sup>	US, internal medicine, family practice and obstetrics and gynaecology clinics, English	DSM SCID	Age = 46 and 31 Male 34% and 0% N = 580 MDD = 7.1% (n = 41)	Sample = 1 Study design = 1 Timing = 1 Rater = ? Blinding = 1 Data integrity = 0 Cut-off = 1 Translation = 1	9 to 15
Lamers et al. <sup>23</sup>	Netherlands, elderly primary care patients with DM and COPD, PHQ-9, Dutch	MINI	Age = 71.4, Male = 51.8% N = 713 MDD = 10.7% (n = 76)	Sample = 1 Study design = 1 Timing = ? Rater = 1 Blinding = 1 Data integrity = 0 Cut-off = 0 Translation = 1	6 to 8

Lotrakul et al. <sup>24</sup>	Thailand, primary care, Thai	MINI, HAM-D	Age = 45.0, Male = 26.3%, N = 279 ( gold standard - MINI) MDD = 6.8% (n = 19)	Sample = 1 Study design = 1 Timing = ? Rater = 1 Blinding = 1 Data integrity = 1 Cut-off = 1 Translation = 1	6 to 15
Lowe et al. <sup>27</sup>	Germany, outpatient clinics and family practices, German	DSM SCID	Age = 41.7 Male 32.9 % N = 1619 (501 had SCID) MDD = 13.2% (n = 66)	Sample = 1 Study design = 1 Timing = 1 Rater = 1 Blinding = 1 Data integrity = 0 Cut-off = 0 Translation = 1	11 to 13
Azah et al. <sup>25</sup>	Malaysia, family medicine clinic, Malay	CIDI	Age = 38.7, Male = 38.3% N = 180 ( gold standard - CIDI), MDD = 16.6% (n = 30)	Sample = 0 Study design = 1 Timing = 1 Rater = ? Blinding = 1 Data integrity = ? Cut-off = 1 Translation = 1	5 to 12
Patel et al. <sup>26</sup>	India, primary care patients, Konkani (majority)/ other local languages (Goa, India).	CIS-R	Age = 37.5 Male 43.6% N = 598 MDD = 4.3% (n = 26)	Sample = 1 Study design = 1 Timing = ? Rater = 1 Blinding = 1 Data integrity = 1 Cut-off = 0 Translation = 1	None reported ( 7 to 15 calculated from original data supplied by authors)
Stafford et al. <sup>30</sup>	Australia, hospital settings (PTCA, AMI and CABG patients), English	MINI	Age = 64.14 Male 80.8 % N = 229 (193 had MINI) MDD = 18% (n = 35)	Sample = 0 Study design = 1 Timing = 1 Rater = ? Blinding = 1 Data integrity = 0 Cut-off = 1 Translation = 1	5, 6 and 10
Thombs et al. <sup>31</sup>	US/Canada, cardiology outpatients, English	DSM C-DIS	Age = unclear Male 82% N = 1024 MDD = 22% (n = 224)	Sample = 1 Study design = 1 Timing = 1 Rater = ? Blinding = 1 Data integrity = 0 Cut-off = 1 Translation = 1	4 to 10
Watnick et al. <sup>33</sup>	US, renal outpatients, English	DSM SCID	Age = 63 Male 42 % N = 62 MDD = 19% (n = 12)	Sample = 0 Study design = 1 Timing = 1 Rater = 1 Blinding = 1 Data integrity = 0 Cut-off = 1 Translation = 1	10
Williams et al. <sup>32</sup>	US, stroke patients, English	DSM SCID	Age = unclear Male unclear % N = 316 MDD = 33.5% (n = 106)	Sample = 1 Study design = 0 Timing = ? Rater = ? Blinding = ? Data integrity = ? Cut-off = 1 Translation = 1	10
Wittkamp et al. <sup>27</sup>	Netherlands, primary care (high risk patients), <u>?Dutch</u>	DSM SCID	Age = 49.8 Male 33.3% N = 664 (corrected population) MDD = 12.3% (n = 82)	Sample = 1 Study design = 0 Timing = 1 Rater = 1 Blinding = 1	10 and 15

					Data integrity = 0 Cut-off = 1 Translation = ?	
Yeung et al. <sup>28</sup>	US, primary care, English	Chinese Bilingual DSM SCID	Age = unclear Male % unclear <i>N</i> = 1940 (184 had SCID) MDD = 20% ( <i>n</i> = 37)		Sample = 1 Study design = 0 Timing = ? Rater = 1 Blinding = 0 Data integrity = 0 Cut-off = 0 Translation = 1	15
<p>Legend for the codes used:  Sample &lt; 250 = 0; ≥ 250 = 1; unclear/ insufficient information = ?  Study design double gated = 0; single gated = 1; unclear/insufficient information = ?  Time between reference and index test &gt; 2 weeks = 0; ≤ 2 weeks = 1; unclear/insufficient information = ?  Rater of reference test no training in use of reference test = 0; trained in use of reference test = 1; unclear/insufficient information = ?  Blinding of assessor of reference test no blinding = 0; blinding = 1; unclear/insufficient information = ?  Data integrity &gt; 20% drop-out/ refusal for final sample = 0, ≤ 20 % refusal/drop-out for final sample = 1, unclear/insufficient information = ?  Cut-off score – validated cut-off score or tested best trade-off (by calculating various cut-offs) = 1, post hoc choice of cut-off point/ choice not justified = 0, unclear/insufficient information = ?  Translation: PHQ-9 did not require translation or non-English versions of the PHQ-9 translated according to a recognised standard = 1; no details of the translation process or translation not done using a recognised standard = 0; unclear/insufficient information = ?  Note:  Diagnostic standards: CIDI = Composite International Diagnostic Interview, CIS-R = Revised Clinical Interview Schedule, DIS = Diagnostic Interview Schedule, MINI = Mini International Neuropsychiatric Interview, SCID = Structured Clinical Interview for DSM Disorders  Study population characteristics: <i>N</i> = sample size, MDD = % diagnosed with Major Depressive Disorder using gold standard, <i>n</i> = number of patients diagnosed with Major Depressive Disorder using gold standard.</p>						