

Records identified and retrieved through database searching
 $n = 3317$
(Medline, PsychINFO, AMED, CINAHL, and Library, Information Science & Technology)

Additional records identified through reference lists
 $n = 10$

Records after duplicates removed
 $n = 3069$

Records excluded based on eligibility criteria
 $n = 2925$

Abstracts reviewed
 $n = 144$

Articles excluded based on eligibility criteria
 $n = 74$

Full-text articles assessed for eligibility
 $n = 70$

Full-text articles excluded
 $n = 42$
Reasons for exclusion:
- Study describing a tool/an intervention for research or diagnostic purposes only: $n = 15$
- Double publication: $n = 14$
- Cognitive remediation: $n = 4$
- Background article: $n = 4$
- No psychotic disorder: $n = 2$
- Lacking relevant information: $n = 2$
- No e-health application: $n = 1$

Fleiss' kappa: 0.79

Studies included in systematic review
 $n = 28$

List of excluded studies	
Excluded study	Rationale for exclusion
Ahmed et al., 1997(1)	Study describing a tool for computer-based cognitive remediation/enhancement
Ahmed et al., 2002(2)	1) Study describing a tool for computer-based cognitive remediation/enhancement, 2) double publication
Alger, 1989(3)	Lacking information
Andrews et al., 2010(4)	Theoretical/background article
Anttila et al., 2008(5)	Double publication (we included Kuosmanen et al., 2009)
Baker et al., 2006(6)	Study describing a tool intended for research or diagnostic purposes only
Brief et al., 1994(7)	Study describing a tool for computer-based cognitive remediation/enhancement
Chinman et al., 2004(8)	Study describing a tool intended for research or diagnostic purposes only
Chinman et al., 2007(9)	1) Study describing a tool intended for research or diagnostic purposes only, 2) Double publication
Cohen et al., 2008(10)	Study describing a tool intended for research or diagnostic purposes only
Delisi et al., 2011(11)	Theoretical/background article
Fernández-Aranda et al., 2012(12)	No psychotic disorder
Ferron et al., 2011(13)	Double publication (we included Brunette et al., 2011)
Freeman, 2008(14)	Study describing a tool intended for research or

	diagnostic purposes only
Godleski et al., 2012(15)	No psychotic disorder
Gorrindo et al., 2009(16)	Study describing a tool intended for research or diagnostic purposes only
Grady et al., 2011(17)	Study describing a tool intended for research or diagnostic purposes only
Hansson et al., 2008(18)	Double publication (we included Priebe et al., 2007)
Hätönen et al., 2010(19)	Double publication (we included Kuosmanen et al., 2009)
Jeste et al., 2009(20)	Study describing a tool intended for research or diagnostic purposes only
Jimison et al., 1998(21)	Study describing a tool intended for research or diagnostic purposes only
Kim et al., 2007(22)	Study describing a tool intended for research or diagnostic purposes only
Koivunen et al., 2007(23)	Double publication (we included Kuosmanen et al., 2009)
Koivunen et al., 2008(24)	Double publication (we included Kuosmanen et al., 2009)
Koivunen et al., 2010(25)	Double publication (we included Kuosmanen et al., 2009)
Kuosmanen et al., 2010(26)	Double publication (we included Kuosmanen et al., 2009)
Pijnenborg et al., 2007(27)	Double publication (we included Pijnenborg et al., 2010)
Pitkänen et al., 2011(28)	1) Theoretical/background article, 2) Double publication (we included Kuosmanen et al., 2009)

Puskar et al., 2011(29)	Double publication (we included Bickmore et al., 2010)
Rotondi et al., 2005(30)	Double publication (we included Rotondi et al., 2010)
Spaniel et al., 2008a(31)	Double publication (we included Spaniel et al., 2012)
Spaniel et al., 2008b(32)	Double publication (we included Spaniel et al., 2012)
Steel et al., 2010(33)	Study describing a tool for computer-based cognitive remediation/enhancement
Swendsen et al., 2011(34)	Study describing a tool intended for research or diagnostic purposes only
Thara et al., 2008(35)	1) Theoretical/background article, 2) Lacking information
Thara et al., 2012(36)	Study describing a tool intended for research or diagnostic purposes only
Thompson et al., 2011(37)	No e-health application
Välimäki et al., 2008(38)	Double publication (we included Kuosmanen et al., 2009)
Wallace et al., 2001(39)	Study describing a tool intended for research or diagnostic purposes only
Weaver et al., 1994(40)	Study describing a tool intended for research or diagnostic purposes only
Weiss et al., 1993(41)	Study describing a tool intended for research or diagnostic purposes only

Zanyi et al., 2009(42)

Lacking information: full-text was requested from the authors in February 2011 twice, but we did not receive any response

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data for the main outcomes?

8. Have all important adverse events that may be a consequence of the intervention been reported?

Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	No	Yes (1 point)	Yes (1 point)	Yes (1 point)
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9. Have the characteristics of study participants lost to follow-up been described?

No	Yes (1 point)	Yes (1 point)	No	Yes (1 point)	Yes (1 point)	No	No	Yes (1 point)	No	No	No	No	Yes (1 point)	No
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10. Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?

Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	No	Yes (1 point)
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External validity

11. Were the subjects asked to participate in the study representative of the entire population from which they were recruited?

Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine
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12. Were those subjects who were prepared to participate representative of the entire population from which they were recruited?

Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine	Unable to determine
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13. Were the staff,

Yes	Unable to	Yes	Yes	Unable to	Yes	Unable to	No	Yes	Unable to	Yes (1	Yes (1	Unable	Yes
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places, and facilities where the patients were treated, representative of the treatment the majority of patients receive? (1 point) determine (1 point) (1 point) determine (1 point) determine (1 point) determine (1 point) determine point) point) to determine (1 point)

Internal validity - bias

14. Was an attempt made to blind study subjects to the intervention they have received?*

Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)
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15. Was an attempt made to blind those measuring the main outcomes of the intervention?

No	No	No	No	No	No	No	No	No	No	No	No	Yes (1 point)	No	No
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16. If any of the results of the study were based on "Data dredging", was this made clear?

Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	No	Yes (1 point)	Yes (1 point)	Yes (1 point)
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17. In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls?

Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)
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18. Were the statistical tests used to assess the main outcomes appropriate

Yes (1 point)	Yes (1 point)	No	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)
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19. Was

Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (1	No	Yes	Yes
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compliance with the intervention/s reliable?

(1 point) (1 point) (1 point) (1 point) (1 point) (1 point) (1 point) (1 point) (1 point) (1 point) (1 point) point) (1 point) (1 point)

20. Were the main outcome measures used accurate (valid and reliable)?

Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point)

Internal validity - confounding

21. Were the participants in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?

Yes (1 point) No Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point)

22. Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?

Yes (1 point) No Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) No Yes (1 point) Yes (1 point) Yes (1 point)

23. Were study subjects randomized to intervention groups?

Yes (1 point) No Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) Yes (1 point) No Yes (1 point) Yes (1 point) Yes (1 point)

24. Was the randomized intervention assignment concealed from both patients and health care staff?

Unable to determine Unable to determine Unable to determine Unable to determine Unable to determine Unable to determine Unable to determine Unable to determine Unable to determine Unable to determine No Yes (1 point) Unable to determine Unable to determine

until recruitment was complete and irrevocable?

25. Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?	Yes (1 point)	Yes (1 point)	Yes (1 point)	No	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	No	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)
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26. Were losses of patients to follow-up taken into account?	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)	No	Yes (1 point)	Yes (1 point)	Unable to determine	Yes (1 point)	Yes (1 point)	Yes (1 point)	Yes (1 point)
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27. Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%?	No	Unable to determine	Unable to determine	No	Yes (1 point)	<i>Power</i> Yes (1 point)	Unable to determine	Unable to determine	Yes (1 point)	No	No	Yes (1 point)	Unable to determine	Unable to determine
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Total score	22 (good)	19 (fair)	22 (good)	19 (fair)	23 (good)	24 (good)	20 (good)	21 (good)	24 (good)	18 (fair)	18 (fair)	22 (good)	21 (good)	22 (good)
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NB: In the Downs and Black scale, 'No' and 'Unable to determine' are graded with 0 points, while 'Yes' is graded either with 1 or 2 points.

* As blinding is not possible in these studies, this cannot be considered a flaw. Therefore, a 1 is appointed to these studies on this item.

