**SUPPLEMENTARY MATERIAL**

*Supplementary Table 1. Main Search Strategy (performed on 5/2/21).*

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| --- | --- | --- |
| **PUBMED** |  | Late-onset OR LOP OR VLOSLP OR very late-onset |
|  | AND | Epidemiol\* OR case control OR cohort studies OR cohort analy\* OR follow up stud\* OR longitudinal OR retrospective OR prospective OR cross sectional |
|  | AND | Psychos\* OR Psychotic OR schizoaffective OR schizophreniform OR delusion\* OR hallucinat\* OR affective psychos\* OR schizophrenia-like psycho\* OR paranoi\* OR bipolar affective psycho\* OR bipolar psycho\* OR psychotic depression OR depressive psycho\* OR manic depressive psychos\* OR severe depression with psycho\* OR paraphrenia |
|  | AND | Dementia\* OR Alzheimer\* OR cognitive impair\* OR cognitive dysfunction OR cognitive decline OR cognition disorder\* OR frontotemporal lobar degeneration |
|  | Qualifier | Middle Aged: 45–64 years OR Aged: 65+ years |
| **PsycINFO** |  | “Late-onset” OR LOP or VLOSLP OR “very late-onset” |
|  | AND | Epidemiol\* OR “case control” OR “cohort studies” OR “cohort analy\*” OR “follow up stud\*” OR longitudinal OR retrospective OR prospective OR “cross sectional” |
|  | AND | Psychos\* OR Psychotic OR schizoaffective OR schizophreniform OR delusion\* OR hallucinat\* OR “affective psychos\*” OR “schizophrenia-like psycho\*” OR paranoi\* OR “bipolar affective psycho\*” OR “bipolar psycho\*” OR “psychotic depression” OR “depressive psycho\*” OR “manic depressive psychos\*” OR “severe depression with psycho\*” OR paraphrenia |
|  | AND | Dementia\* OR Alzheimer\* OR “cognitive impair\*” OR “cognitive dysfunction” OR “cognitive decline” OR “cognition disorder\*” OR “frontotemporal lobar degeneration” |
|  | Qualifier | Full text, Peer reviewed, subject: aged |
| **Web of Science** | 1 | TS=(Late-onset OR LOP or VLOSLP OR very late-onset) |
|  | 2 | TS=(Epidemiol\* OR “case control” OR “cohort studies” OR “cohort analy\*” OR “follow up stud\*” OR longitudinal OR retrospective OR prospective OR “cross sectional”) |
|  | 3 | TS=(Psychos\* OR Psychotic OR schizoaffective OR schizophreniform OR delusion\* OR hallucinat\* OR “affective psychos\*” OR “schizophrenia-like psycho\*” OR paranoi\* OR “bipolar affective psycho\*” OR “bipolar psycho\*” OR “psychotic depression” OR “depressive psycho\*” OR “manic depressive psychos\*” OR “severe depression with psycho\*” OR paraphrenia) |
|  | 4 | TS=(Dementia\* OR Alzheimer\* OR “cognitive impair\*” OR “cognitive dysfunction” OR “cognitive decline” OR “cognition disorder\*” OR “frontotemporal lobar degeneration”) |
|  |  | (1 AND 2 AND 3 AND 4) |

*Supplementary Table 2. Quality Assessment using GRADE Criteria.*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Outcome | Baseline Rating | Assessment Criteria | | | | | | Quality of Evidence | Inclusion in review |
| Risk of bias | Inconsistency | Indirectness | Imprecision | Publication Bias | Others |
| **Cross-Sectional Studies** | | | | | | | | | | |
| Bentall, R. P., et al. (2009). | Executive Function | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Reasoning | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Language | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Hanssen, M., et al. (2015). | Memory and Recall | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Orientation | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Language | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Attention | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Perception | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Executive Function | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Henderson, A. S., et al. (1998). | Memory and Recall | ++ | – | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Orientation | ++ | – | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Language | ++ | – | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Registration | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Attention | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Moore, R., et al. (2006). | Memory and Recall | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Language | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Perception | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Naguib, M. and R. Levy (1987). | Memory and Recall | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Orientation | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Visuospatial ability | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Psychomotor function | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Rodriguez-Ferrera, S., et al. (2004). | Memory and Recall | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Orientation | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Registration | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Attention | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Language | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Psychomotor function | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Van Assche, L., et al. (2019). | Memory and Recall | ++ | 0 | – | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Language | ++ | 0 | – | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Registration | ++ | 0 | – | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Attention | ++ | 0 | – | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Executive Function | ++ | 0 | – | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Perception | ++ | 0 | – | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Visuospatial ability | ++ | 0 | – | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| **Longitudinal Studies** | | | | | | | | | | |
| Almeida, O. P., et al. (2019). | Rate of dementia diagnosis | ++ | 0 | 0 | – | 0 | 0 | 0 | + (Very Low) | Yes |
| Holden, N. L. (1987). | Rate of dementia diagnosis | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Howard, R., et al. (1995). | Memory and Recall | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Orientation | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Language | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Registration | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Attention | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Executive Function | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Hymas, N., et al. (1989). | Memory and Recall | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Orientation | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Psychomotor function | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Kodesh, A., et al. (2020) | Rate of dementia diagnosis | ++ | 0 | 0 | 0 | 0 | 0 | + (Large magnitude of effect) | +++ (Moderate) | Yes |
| Kørner, A., et al. (2008). | Rate of dementia diagnosis | ++ | 0 | 0 | 0 | 0 | 0 | + (Large magnitude of effect),  + (Plausible confounding would reduce effect) | ++++ (High) | Yes |
| Kørner, A., et al. (2009). | Rate of dementia diagnosis | ++ | 0 | 0 | 0 | 0 | 0 | 0 | ++ (Low) | Yes |
| Mazeh, D., et al. (2005). | Decline in cognitive function | ++ | 0 | 0 | 0 | – | 0 | 0 | + (Very Low) | Yes |
| Ostling, S., et al. (2007). | Rate of dementia diagnosis | ++ | – | 0 | 0 | 0 | 0 | 0 | + (Very Low) | Yes |
| Talaslahti, T., et al. (2015). | Mortality from dementia | ++ | 0 | 0 | – | 0 | 0 | 0 | + (Very Low) | Yes |

Note. “+” under “Baseline Rating” and “Quality of Evidence” denotes a quality rating of Very Low, “++” of Low, “+++” of Moderate, and “++++” of High. A baseline rating of Low was applied to all outcomes derived from observational studies in accordance with guidelines for using the GRADE system of quality rating (Ryan and Hill, 2016). Studies were then evaluated according to assessment criteria, upgraded or downgraded accordingly. “0” denotes no change to rating, “–” denotes a downgrade, and “+” denotes an upgrade. Final quality rating is reflected under the “Quality of Evidence” column.

*Supplementary Table 3. Summary of Results of Cross-Sectional Studies.*

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| --- | --- | --- | --- | --- |
| **Cross-Sectional Studies** | | | | |
| Study | Participants | Age (years) | Outcome Measures | Findings |
| Bentall, R. P., et al. (2009). | (Inpatients and outpatients)  VLOSLP  (n = 27) and  VLODD  (n = 2)  Healthy aged controls  (n = 31) | During study 76.90 (SD±5.99)  At disease onset  M: 72.38  SD: 6.87  During study  M: 75.6  SD: 5.54 | WASI, DS Bw, BiaJ, ToMD | VLOSLP/VLODD patients scored significantly lower on a multidimensional model of cognitive performance analysed using the WASI IQ, DS Bw, BiaJ and ToMD tests compared to healthy aged controls.  WASI IQ  VLOSLP/VLODD: 93.10 (14.13)  Controls: 104.97 (16.21)  WASI Verbal  VLOSLP/VLODD: 45.21 (10.86)  Controls: 53.29 (9.85)  WASI Matrix Reasoning  VLOSLP/VLODD: 45.76 (10.60)  Controls: 51.90 (11.89)  Backwards digit span  VLOSLP/VLODD: 5.14 (2.41)  Controls: 7.26 (2.46)  BiaJ  VLOSLP/VLODD: 3.73 (±4.13)  Controls: 4.88 (±4.44)  BiaJ social task  VLOSLP/VLODD: 3.52 (4.46)  Controls: 4.62 (5.24)  ToMD (first-order)  VLOSLP/VLODD: 79.76 (29.17)  Controls: 96.77 (10.02)  ToMD (second-order)  VLOSLP/VLODD: 28.57 (29.70)  Controls: 55.91 (34.84) |
| Hanssen, M., et al. (2015). | (Inpatients and outpatients)  VLOSLP  (n = 28)  Healthy controls  (n = 290)  LOP (n = 24)  EOP (n = 24) | During study  M:75.68  Range: 72.56–78.80  At onset  M: 72.39  SD: 7.72  During study  M:37.55  Range: 35.50–39.59  During study  M:58.13  Range: 53.02–63.23  At onset  M: 49.13  SD: 5.54  During study  M:27.3  Range: 26.47–28.24  At onset  M: 22.19  SD: 6.49 | CAMCOG, GWLT, CPT, RST, abbreviated WAIS-III, RSPM | Patients with VLOSLP performed marginally better on the CAMCOG (when adjusted) and RST compared to LOS patients. There were no significant differences in performance between VLOP, LOP and EOP on the WAIS/Raven IQ, GWLT, or CPT reaction time. VLOP patients had impaired CPT accuracy scores compared to LOP and EOP patients.  CAMCOG  VLOP: 1.88 (0.24)  LOP: 1.75 (0.33)  p = 0.020 (when adjusted for sex, education level, negative symptoms and remission state)  RST  VLOP: 0.44 (1.28)  LOP: –0.36 (1.3)  EOP: –0.20 (1.32)  CPT-Accuracy  VLOP: 0.16 (1.51)  LOP: 0.6 (0.89)  VLOP < LOP, p = 0.047  EOP: 0.4 (0.84)  WAIS/Raven IQ  VLOP: –1.18 (1.58)  LOP: –1.18 (1.5)  EOP: –0.93 (1.12)  GWLT-Immediate Recall  VLOP: –0.72 (1.11)  LOP: –0.81 (1.5)  EOP: –1.02 (1.24)  GWLT-Delayed Recall  VLOP: –0.53 (1.17)  LOP: –0.74 (1.06)  EOP: –0.85 (1.17)  CPT-Reaction Time  VLOP: 1.43 (0.22)  LOP: 1.48 (0.24)  EOP: 1.45 (0.24) |
| Henderson, A. S., et al. (1998). | (Nursing homes)  VLOSLP  (n = 40)  Healthy aged controls  (n = 771) | During study  M: 78.9  SD: 6.5  During study  M: 76.7  SD: 5.1 | MMSE, SLMT, EMT, NART | MMSE, EMT and NART scores were not significantly different in psychotic and non-psychotic elderly. SLMT scores were significantly higher in non-psychotic elderly.  SLMT  Psychotic: 91.1  Non-psychotic: 99.8  t=3.2, df=701, p=0.001 |
| Moore, R., et al. (2006). | (Inpatients and outpatients)  VLOSLP (n = 29)  Healthy aged controls  (n = 30) | During study  M:76.90  SD: 5.99  During study  M:75.73  SD: 5.59 | WASI IQ, DS Bw, Mentalising task (Snowden et al., unpublished), BiaJ | VLOSLP patients performed significantly worse on the WASI IQ test, mentalising task (deception) and digit span backwards test. There was no significant difference in performance between VLOSLP patients and controls on mentalising task (false belief) and the Beads in a jar test.  WASI IQ  VLOSLP: 93.10 (14.13)  Controls: 104.00 (15.63)  p = 0.01  DS Bw  VLOSLP: 5.14 (2.42)  Controls: 7.17 (2.45)  p <0.01  Mentalising task (first-order deception)  VLOSLP: 79.76 (29.17)  Controls: 96.67 (10.17)  p < 0.01  Mentalising task (second-order deception)  VLOSLP: 28.57 (29.70)  Controls: 55.56 (35.75)  p < 0.01  Mentalising task (first-order false belief)  VLOSLP: 85.06 (21.06)  Controls: 95.56 (14.47)  Mentalising task (second-order false belief)  VLOSLP: 68.97 (30.77)  Controls: 92.22 (14.34)  BiaJ  VLOSLP: 3.73 (4.13)  Controls: 4.90 (4.52) |
| Naguib, M. and R. Levy (1987). | (Inpatients and outpatients)  Late Paraphrenia (n = 43)  Healthy aged controls (n = 40) | During study  M:75.27  SD: 6.29  During study  M:75.85  SD: 8.64 | MTS, DCT, DSST | Patients with paraphrenia performed worse on the MTS and DCT compared to controls. There was no significant difference in performance on the DSST.  MTS  Paraphrenia: 28.48 (4.03)  Controls: 31.72 (3.08)  p < 0.001  DCT  Paraphrenia: 59.62 (32.96)  Controls: 93.59 (30.86)  p < 0.002  DSST  Paraphrenia: 9.93 (7.03)  Controls: 11.52 (3.22) |
| Rodriguez-Ferrera, S., et al. (2004). | (Inpatients and outpatients)  VLOP  (n =26)  EOP (n = 46) | During study  M: 72  SD: 7.16  During study  M: 36  SD: 11.3 | MMSE, TDRS | VLOP patients had significantly lower TDRS scores compared to AOP patients.  No significant difference in MMSE performance was found between VLOP and AOP patients.  TDRS  VLOP: 35.12 (23% scored above 34, p = 0.003)  AOP: 37.82 (61% scored above 34)  p = 0.003  MMSE  VLOP: 26.52  AOP: 27.02 |
| Van Assche, L., et al. (2019) | (Inpatients and outpatients)  VLOSLP  (n = 57)  (77.2% F, 22.8% M)  DLB (n = 49)  (32.7% F, 67.3% M)  AD+P (n = 35)  (62.9% F, 37.1% M) | During study  M: 79.25  SD: 7.484  During study  M: 76.20  SD: 6.955  During study  M: 78.80  SD: 6.286 | MMSE, Stroop, DS Fw, DS Bw, RAVLT, BNT, Letter VF, AVF, VOSP, COTESS | VLOSLP patients had significantly higher scores on the RAVLT tasks compared to the DLB and AD+P groups, and the COTESS tasks compared to the DLB group.  No significant difference in performance on the Stroop, DS Fw and Bw, BNT, AVF and VOSP was found between VLOSLP, DLB and AD+P patients.  RAVLT Trial 1  VLOSLP (n = 54): 3.94 (2.023)  DLB (n = 46): 2.65 (1.609)  AD+P (n = 35): 2.34 (1.259)  VLOSLP > DLB *t*(87) = 4.598, *P* 0.002  VLOSLP > AD+P *t*(98) = 3.549, *P* <0.001  RAVLT sum of Trial 1–5  VLOSLP (n = 54): 31.09 (11.653)  DLB (n = 46): 23.72 (8.007)  AD+P (n = 35): 19.06 (7.182)  VLOSLP > DLB *t*(98) = 3.728, *P* 0.001  VLOSLP > AD+P *t*(87) = 6.024, *P* <0.001  DLB > AD+P *t*(79) = 2.752, *P* 0.020  RAVLT delayed recall  VLOSLP (n = 54): 5.28 (3.858)  DLB (n = 46): 3.39 (2.832)  AD+P (n = 35): 1.49 (2.035)  VLOSLP > DLB t(98) = 2.817, P 0.016  VLOSLP > AD+P t(87) = 6.038, P <0.001  DLB > AD+P t(79) = 3.512, P 0.002  RAVLT retention/trial 5  VLOSLP (n = 54): 0.62 (0.344)  DLB (n = 46): 0.51 (0.380)  AD+P (n = 35): 0.27 (0.311)  VLOSLP > AD+P t(87) = 5.028, P <0.001  DLB > AD+P t(79) = 3.118, P 0.007  RAVLT recognition (items correctly recognised/false identification)  VLOSLP (n = 54): 9.11 (4.777)  DLB (n = 46): 9.54 (3.067)  AD+P (n = 35): 5.11 (5.593)  VLOSLP > AD+P  t(87) = 3.486, P <0.001  DLB > AD+P  t(79) = 4.227, P <0.001  House (COTESS)  VLOSLP (n = 45): 3.89 (1.541)  DLB (n = 12): 2.50 (1.977)  AD+P (n = 13): 2.77 (1.922)  VLOSLP > DLB *t*(55) = 2.259, *P* 0.030  House copy (COTESS)  VLOSLP (n = 45): 4.80 (1.392)  DLB (n = 14): 2.43 (1.910)  AD+P (n = 13): 4.15 (0.987)  VLOSLP > DLB t(57) = 4.301, P 0.001  AD+P > DLB t(25) = 2.969, P 0.020  Stroop I  VLOSLP (n = 48): 85.29 (54.457)  DLB (n = 34): 74.79 (29.432)  AD+P (n = 27): 67.15 (18.106)  Stroop IF  VLOSLP (n = 46): 121.370 (72.933)  DLB (n = 29): 178.69 (157.328)  AD+P (n = 25): 142.720 (107.523)  DS Fw  VLOSLP (n = 55): 4.69 (0.998)  DLB (n = 46): 4.74 (0.976)  AD+P (n = 33): 4.64 (0.859)  DS Bw  VLOSLP (n = 55): 3.25 (0.966)  DLB (n = 46): 3.17 (0.709)  AD+P (n = 33): 3.30 (0.810)  BNT  VLOSLP (n = 53): 43.60 (9.153)  DLB (n = 45): 40.80 (10.683)  AD+P (n = 33): 38.58 (8.675)  AVF  VLOSLP (n = 56): 13.62 (4.363)  DLB (n = 48): 11.73 (3.774)  AD+P (n = 35): 11.54 (3.202)  Letter VF  VLOSLP (n = 55): 17.29 (10.168)  DLB (n = 48): 17.60 (8.274)  AD+P (n = 35): 16.51 (7.126)  Object decision (VOSP)  VLOSLP (n = 45): 14.58 (3.121)  DLB (n = 21): 12.82 (3.924)  AD+P (n = 16): 14.56 (3.203)  Number location (VOSP)  VLOSLP (n = 45): 8.36 (2.278)  DLB (n = 21): 7.29 (2.704)  AD+P (n = 16): 7.56 (2.683)  Cube analysis (VOSP)  VLOSLP (n = 45): 8.04 (2.067)  DLB (n = 20): 6.65 (7.50)  AD+P (n = 16): 7.50 (2.556) |

*Note. VLODD, Very Late-Onset Delusional Disorder; WASI, Wechsler Abbreviated Scale of Intelligence; DS Bw, Digit Span Backward; BiaJ, Beads in a Jar; ToMD, Theory of Mind Deception; CAMCOG, Cambridge Cognitive assessment battery; GWLT, Groningen Word Learning Test; CPT, Continuous Performance Test; RST, Response Shifting Task; WAIS-R, Wechsler Adult Intelligence Scale-Revised; LOP, Late-Onset Psychosis; EOP, Early-Onset Psychosis; RSPM, (Raven Standard) Progressive Matrices; MMSE, Mini Mental State Examination; SLMT, Symbol Letter Modalities Test; EMT, Episodic Memory Test; NART, National Adult Reading Test; MTS, Mental Test Score; DCT, Digit Copying Test; DSST, Digit Symbol Substitution Test; VLOP, Very Late-Onset Psychosis; TDRS, Tardive Dyskinesia Rating Scale; Stroop I, Stroop Colour Word Interference Task Card I; Stroop IF, Stroop Colour Word Interference Task Interference Factor; DS Fw, Digit Span Forward; DLB, Dementia with Lewy-Bodies; AD+P, Alzheimer’s type Dementia with Psychosis; RAVLT, Rey Auditory Verbal Learning Test; BNT, Boston Naming Test; AVF, Animal Verbal Fluency; VOSP, Visual Object and Space Perception Battery; COTESS, Cognitieve Testbatterij voor Senioren (Cognitive Test for Seniors).*

*Supplementary Table 4. Summary of Results of Longitudinal Studies.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Longitudinal Studies** | | | | | |
| Study | Participants | Duration of follow-up | Age | Outcome Measures | Findings |
| Almeida, O. P., et al. (2019) | (Treatment context not stated)  VLOSLP (sample size not reported) (men)  Psychosis onset <65 years (sample size not reported) (men)  Age-matched controls without psychosis at baseline  (n = 37364) (men) | 17.7 years | At baseline assessment  65–85 | WADLS  Dementia from any cause, as coded by the International Classification of Diseases 9 & 10, was the primary outcome of interest. | At follow-up, VLOSLP patients were found to have a significantly higher rate of dementia compared to patients without a psychotic disorder at baseline.  No significant difference was found between VLOSLP patients and age-matched EOS/LOS patients.  Adjusted hazard ratio  VLOSLP: 2.22 (1.74–2.84)  Psychosis onset <65 years: 2.73 (2.34–3.18)  Adjusted sub-hazard ratio (death used as competing risk)  VLOSLP: 2.46 (1.89–3.19)  Psychosis onset <65 years: 2.54 (2.14–3.00) |
| Holden, N. L. (1987). | (Hospitalised at baseline assessment)  VLOP (n = 37) | 10 years | Did not progress to dementia  M: 68.5  Range: 60–79  Progressed to dementia  M: 72.5  Range: 60–82 | GWQ | At follow-up after 10 years, 13 (35%) cases were diagnosed as “organic psychosis” which progressed to dementia; 65% were not diagnosed with dementia. Patients who progressed to dementia had significantly lower GWQ scores at baseline assessment. |
| Howard, R., et al. (1995). | (Inpatients and outpatients)  VLOSLP  (n = 23)  (20 F, 3 M) | 2 years | M: 79.91 | MMSE | At baseline assessment, all patients scored above 24 on the MMSE.  At follow-up assessment, 3 of 23 (13%) patients scored below 24 on the MMSE. |
| Hymas, N., et al. (1989). | (Inpatients and outpatients)  Late Paraphrenia (n = 42)  Healthy aged controls at baseline (n = 40)  (31 F, 9 M)  Healthy aged controls at follow-up  (n = 23)  (18 F, 5 M) | M: 3.7 years  Range: 2.8–5.3  M: 3.7 years  Range: 3.4–4.3 | Patients at baseline assessment  M: 75.27  SD: 6.29  Controls at baseline  M: 75.9  SD: 8.6  Controls at follow-up  M: 77.9  SD: 9 | MTS | On both initial assessment and follow-up assessment, patients with paraphrenia performed significantly worse on the MTS than healthy controls.  Patients with paraphrenia also showed a significantly greater decline in MTS scores, with 14 of 42 rated as “cognitively impaired” (33%) at follow-up.  MTS–Initial  Paraphrenia (mean): 28.8 SD: 3.3  Controls (mean): 32.4  SD: 2.2  MTS–Follow-up  Paraphrenia (mean): 26.8 SD: 6.5  Controls (mean): 30.8  SD: 5.1  Change in MTS  Paraphrenia: Significant, p = 0.005  Controls: Significant, p = 0.025 |
| Kodesh, A., et al. (2020) | (Treatment context not stated)  VLOS (n = 329) (62.6% F, 37.4% M)  Age-matched controls (n = 93791)  (53.5% F, 46.5% M) | 4.8 years | At baseline  M: 68.9  SD: 7.1 | Meuhedet dementia registry  Dementia was defined based on the International Classification of Diseases 9 & 10. | VLOS patients had a significantly higher rate of developing dementia (n = 64, 19.52%) compared to non-VLOS patients (n = 5962, 6.4%), p < 0.001. |
| Kørner, A., et al. (2008). | (Treatment context not stated)  VLODD  (n = 1437)  (77.5% F)  Controls:  OA: 7302 (63.6% F) | Median: 1.87 years  Quartiles: 0.69, 3.64  Median: 4.40 years  Quartiles: 2.28, 6.28 | At first discharge  Median: 79.4  Quartiles: 72.6, 85.8  At first discharge  Median: 71.3  Quartiles: 65.8, 76.7 | DPCR, DNHR  Dementia was defined as main diagnosis of AD/VaD/unspecified dementia based on the International Classification of Diseases 10. | A significantly higher proportion of patients with VLODD were later diagnosed with dementia (15.2%) compared to patients with OA (2.1%), p < 0.0001.  VLODD patients had a higher relative risk (number) of developing dementia in the first 6 months after diagnosis compared to OA patients. Male VLODD patients had a higher relative risk than women.  Relative risk  Women: 20.8 (10.27, 42.19)  Men: 119.5 (16.08, 887.6) |
| Kørner, A., et al. (2009). | (Treatment context not stated)  VLOSLP  (n = 409) (64.3% F)  OA  (n = 7303)  (63.6% F) | Median:  3.00  Quartiles: 1.25, 4.78  Median: 4.41  Quartiles:  2.28, 6.29 | At first discharge  Median: 71.19  Quartiles: 64.88, 77.89  At first discharge  Median: 71.19  Quartiles: 65.78, 76.74 | DPCR, DNHR  Dementia was defined as main diagnosis of AD/VaD/unspecified dementia based on the International Classification of Diseases 10. | VLOSLP patients had a significantly higher rate of being subsequently diagnosed with dementia (4.4%) compared to healthy controls (2.15%), p < 0.0001.  The relative risk of developing dementia in VLOSLP compared to OA: 3.15 (1.93, 5.14) |
| Mazeh, D., et al. (2005). | (Inpatients and outpatients)  Primary caregivers of VLOSLP patients  (n = 21)  (Patients: 15 F, 6 M)  (Inpatients)  Primary caregivers of elderly EOS patients  (n = 21)  (Patients: 15 F, 6 M) | 6–30 months | >70 | Telephone interviews with primary carers | 13 of 16 living VLOSLP patients appeared cognitively intact at follow-up, 3 (18.8%) showed decline.  16 of 19 living EOS patients appeared cognitively intact at follow up, 3 (15.8%) showed decline. |
| Ostling, S., et al. (2007). | 15  (Inpatients and outpatients)  VLOSLP  (n = 18)  Age-matched controls  (n = 349) | 15  15 years | At baseline assessment 70  At follow-up  85 | DSM-III-R criteria | Among non-demented  70-year-olds at baseline, 349 were free from previous  or current psychotic symptoms or paranoid ideation as  long as they were non-demented during the entire  20-year study period and 88 (25%) of those developed  dementia. Among the 18 individuals who developed  first-onset psychotic symptoms during the follow-up,  8 (44%) developed dementia. A Cox regression  analyse based on person-years at risk showed that  the Hazard Ratio (HR) was 3.5 (95% CI 1.7–7.3,  p¼0.00) for developing dementia after first-onset  psychotic symptoms (Table 5). The risk of developing  dementia among individual with first-onset of  psychotic symptoms between ages 70–80 (HR 2.2,  (95% CI 0.5–9.1) and ages 80–90 (HR 3.1, 95% CI  0.4–22.9) was equal ly distributed. The mean interval  between first onset of psychotic symptoms and  development of dementia was 5.0 year s (SD 4.7).  Among non-demented  70-year-olds at baseline, 349 were free from previous  or current psychotic symptoms or paranoid ideation as  long as they were non-demented during the entire  20-year study period and 88 (25%) of those developed  dementia. Among the 18 individuals who developed  first-onset psychotic symptoms during the follow-up,  8 (44%) developed dementia. A Cox regression  analyse based on person-years at risk showed that  the Hazard Ratio (HR) was 3.5 (95% CI 1.7–7.3,  p¼0.00) for developing dementia after first-onset  psychotic symptoms (Table 5). The risk of developing  dementia among individual with first-onset of  psychotic symptoms between ages 70–80 (HR 2.2,  (95% CI 0.5–9.1) and ages 80–90 (HR 3.1, 95% CI  0.4–22.9) was equal ly distributed. The mean interval  between first onset of psychotic symptoms and  development of dementia was 5.0 year s (SD 4.7).  Among non-demented  70-year-olds at baseline, 349 were free from previous  or current psychotic symptoms or paranoid ideation as  long as they were non-demented during the entire  20-year study period and 88 (25%) of those developed  dementia. Among the 18 individuals who developed  first-onset psychotic symptoms during the follow-up,  8 (44%) developed dementia. A Cox regression  analyse based on person-years at risk showed that  the Hazard Ratio (HR) was 3.5 (95% CI 1.7–7.3,  p¼0.00) for developing dementia after first-onset  psychotic symptoms (Table 5). The risk of developing  dementia among individual with first-onset of  psychotic symptoms between ages 70–80 (HR 2.2,  (95% CI 0.5–9.1) and ages 80–90 (HR 3.1, 95% CI  0.4–22.9) was equal ly distributed. The mean interval  between first onset of psychotic symptoms and  development of dementia was 5.0 year s (SD 4.7).5  A significantly higher proportion of VLOSLP patients (44.4%) developed dementia compared to controls (25.2%), p < 0.01. |
| Talaslahti, T., et al. (2015). | (Treatment context not stated)  VLOSLP  (n = 918)  EOS/LOS  (n = 6142) | 10 years | At baseline assessment  >65 | FHDR, NCDRSF | SMR from dementia was found to be significantly higher in VLOSLP patients than in elderly patients with early or late-onset schizophrenia.  SMR  VLOSLP: 8.57 (6.69, 10.81)  EOS/LOS: 3.03 (2.62–3.49)  p < 0.001 |

*Note. WADLS, Western Australia Data Linkage System; VLOP, Very Late-Onset Psychosis; GWQ, Gresham Ward Questionnaire; VLOS, Very Late-Onset Schizophrenia; VLODD, Very Late-Onset Delusional Disorder; OA, Osteoarthritis; DPCR, Danish Psychiatric Central Register; DNHR, Danish National Hospital Register; AD, Alzheimer’s Disease; VaD, vascular dementia; FDHR, Finnish Hospital Discharge Register; NCDRSF, National Causes of Death Register of Statistics Finland; SMR, Standard Mortality Ratio*