

***Figure 1*:** *PRISMA flow diagram showing process of study selection for inclusion in systematic review.*

**Table 1: Descriptive Information of studies included in the meta-analysis**

|  |  |
| --- | --- |
| **Descriptive variable** | **Number of studies** |
| ***Study design*** | |
| Cross-sectional | 34 |
| Cohort | 12 |
| ***Study Location*** | |
| Nationally representative | 5 |
| Australian Capital Territory | 1 |
| New South Wales | 3 |
| Northern Territory | 0 |
| Queensland | 2 |
| South Australia | 12 |
| Tasmania | 1 |
| Victoria | 7 |
| Western Australia | 7 |
| Two or more States | 6 |
| State not specified | 2 |
| ***Year Data Collected*** | |
| 1990-1995 | 9\* |
| 1996-2000 | 6\* |
| 2001-2005 | 5\* |
| 2006-2010 | 13 |
| 2011-2015 | 13 |

\* Studies reported only traditional bullying

**Table 2: Pooled prevalence estimates based on all studies and national representative studies by the type of bullying involvement**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Involvement** | **Pooled prevalence estimates based on all studies** | | | | | | **Pooled prevalence estimates based on national representative studies** | | | | | |
| **Data points** | **Pooled prevalence %** | **95%CI** | **I2 (%)** | **Cochran’s Q** | **Test for Heterogeneity**  **(*p*-Value)** | **Data points** | **Pooled prevalence %** | **95%CI** | **I2 (%)** | **Cochran’s Q** | **Test for Heterogeneity**  **(*p*-Value)** |
| Bullying Victimisation exposure a,c | 78 | 15.09 | 11.11-19.56 | 99.62 | 20595.03 | <0.001 | 12 | 12.97 | 6.77-20.72 | 99.75 | 4519.97 | <0.001 |
| Bullying Perpetration exposure b,c | 52 | 7.15 | 4.69-10.07 | 99.22 | 6580.48 | <0.001 | 12 | 5.16 | 2.01-9.54 | 99.62 | 2970.43 | <0.001 |

**a)** Where studies reported Victimisation only and Victim-Perpetration estimates, they were combined to give an overall victimisation rate that would be comparable to studies that did not specify the victim-perpetration grouping;

**b)** Where studies reported Perpetration only and Victim-Perpetration estimates, they were combined to give an overall perpetration rate that would be comparable to studies that did not specify the victim-perpetration grouping;

**c)** Included studies reported either traditional bullying only, cyberbullying only, traditional bullying and cyberbullying as a single estimate, or traditional bullying and cyberbullying as separate estimates (both estimates included)**.**

**Table 3: Pooled bullying prevalence estimates for traditional bullying and cyberbullying by the type of bullying involvement**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Involvement** | **Bullying sub-type** | **Data points** | **Pooled prevalence %** | **95%CI** | **I2 (%)** | **Cochran’s Q** | **Test for Heterogeneity**  **(*p*-Value)** |
| Bullying Victimisation exposure | Traditional Bullying Victimisation a,b,c | 43 | 25.13 | 18.73-32.11 | 99.37 | 6749.62 | <0.001 |
| Cyberbullying Victimisation a,b | 11 | 7.02 | 2.41-13.54 | 99.41 | 1709.33 | <0.001 |
| Bullying Perpetration exposure | Traditional Bullying Perpetration a,b,c | 30 | 11.61 | 7.41-16.57 | 99.02 | 2953.57 | <0.001 |
| Cyberbullying Perpetration a,b | 14 | 3.45 | 1.13-6.84 | 98.93 | 1217.48 | <0.001 |

**a)** Where studies reportedprevalence as a combined estimate for Traditional and Cyber bullying, they were excluded;

**b)** Where studies did not specify whether traditional bullying or cyber bullying, they were excluded;

**c)** Where studies did not specify whether traditional bullying or cyber bullying, but was likely to report traditional bullying (physical, verbal, and relational bullying experiences were included in questionnaire), they were included in traditional bullying exposure.

**Table 4: Pooled bullying prevalence estimates for the type of bullying involvement by recall-period**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Involvement** | | **Recall period** | **Data points** | **Pooled prevalence %** | **95%CI** | **I2 (%)** | **Cochran’s Q** | **Test for Heterogeneity**  **(*p*-Value)** |
| Bullying Victimisation exposure a,c | Last year | | 35 | 15.17 | 9.17-22.30 | 99.65 | 9804.70 | <0.001 |
| Last three months | | 18 | 15.20 | 8.53-23.3 | 99.66 | 5129.38 | <0.001 |
| Last month | | 8 | 12.05 | 4.39-22.48 | 99.71 | 2495.32 | <0.001 |
| Lifetime or timeframe not-specified | | 17 | 18.90 | 10.50-28.98 | 99.37 | 2556.68 | <0.001 |
| Bullying Perpetration exposure b,c | Last year | | 22 | 5.27 | 3.13-7.92 | 98.27 | 1220.08 | <0.001 |
| Last three months | | 12 | 9.67 | 3.6-18.00 | 99.54 | 2432.69 | <0.001 |
| Last month | | 8 | 5.38 | 0.86-12.71 | 99.66 | 2115.76 | <0.001 |
| Lifetime or timeframe not-specified | | 10 | 7.11 | 4.99-9.57 | 91.14 | 101.54 | <0.001 |

**a)** Where studies reported Victimisation only and Victim-Perpetration estimates, they were combined to give an overall victimisation rate that would be comparable to studies that did not specify the victim-perpetration grouping;

**b)** Where studies reported Perpetration only and Victim-Perpetration estimates, they were combined to give an overall perpetration rate that would be comparable to studies that did not specify the victim-perpetration grouping;

**c)** Where studies reported Traditional bullying, Cyber bullying, Traditional and Cyber bullying (included both estimates), and Not specified whether cyber or traditional bullying, they were combined to give an overall estimates.

**Table 5: Pooled bullying prevalence estimates for traditional bullying and cyberbullying**

**by the type of bullying involvement and gender**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Involvement** | **Gender** | **Data points** | **Pooled prevalence %** | **95%CI** | **I2 (%)** | **Cochran’s Q** | **Test for Heterogeneity**  **(*p*-Value)** |
| Bullying Victimisation exposure a,c | **Male** | **45** | **14.55** | **9.60-20.31** | **99.30** | **6288.49** | **<0.001** |
| Traditional | 36 | 18.02 | 11.87-25.10 | 99.21 | 4479.97 | <0.001 |
| Cyber | 9 | 6.66 | 2.41-12.63 | 98.71 | 642.83 | <0.001 |
| **Female** | **44** | **14.16** | **9.49-19.58** | **99.23** | **5633.08** | **<0.001** |
| Traditional | 36 | 16.36 | 10.95-22.59 | 99.11 | 3968.53 | <0.001 |
| Cyber | 8 | 8.02 | 1.96-17.10 | 99.21 | 888.68 | <0.001 |
| Bullying Perpetration exposure b,c | **Male** | **30** | **8.85** | **5.27-13.21** | **98.65** | **2151.11** | **<0.001** |
| Traditional | 23 | 7.56 | 4.26-11.69 | 98.26 | 1266.29 | <0.001 |
| Cyber | 7 | 10.16 | 2.93-20.55 | 99.21 | 760.22 | <0.001 |
| **Female** | **29** | **6.08** | **3.53-9.23** | **98.04** | **1431.62** | **<0.001** |
| Traditional | 22 | 5.00 | 2.58-8.11 | 97.64 | 891.32 | <0.001 |
| Cyber | 7 | 7.15 | 2.60-13.51 | 98.67 | 451.52 | <0.001 |

**a)** Where studies reported Victimisation only and Victim-Perpetration estimates, they were combined to give an overall victimisation rate that would be comparable to studies that did not specify the victim-perpetration grouping;

**b)** Where studies reported Perpetration only and Victim-Perpetration estimates, they were combined to give an overall perpetration rate that would be comparable to studies that did not specify the victim-perpetration grouping;

**c)** Where studies reported Traditional bullying, Cyber bullying, Traditional and Cyber bullying (included both estimates), and Not specified whether cyber or traditional bullying, they were combined to give an overall estimates.

**Table 6: Pooled bullying prevalence estimates for traditional bullying by data collection year**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Involvement** | **Data collected year** | | **Data points** | **Pooled prevalence %** | **95%CI** | **I2 (%)** | **Cochran’s Q** | **Test for Heterogeneity**  **(*p*-Value)** |
| Traditional Bullying Victimisation a | | Before 2005 | 14 | 31.49 | 16.92-48.08 | 99.60 | 3293.94 | <0.001 |
| 2006 onwards b | 18 | 23.89 | 17.60-30.79 | 98.82 | 1445.80 | <0.001 |
| Traditional Bullying Perpetration a | | Before 2005 | 6 | 18.33 | 8.14-31.22 | 98.98 | 492.10 | <0.001 |
| 2006 onwards b | 15 | 9.22 | 4.59-15.17 | 98.97 | 1362.09 | <0.001 |

**a)** Where studies did not specify whether traditional bullying or cyber bullying, but was likely to report traditional bullying, they were included;

**b)** Where studies reportedprevalence as a combined estimate for Traditional and Cyber bullying or Cyberbullying only, they were excluded.