

Supplementary Table 1. Newcastle - Ottawa Quality Assessment Scale for studies on weight and skipping breakfast

| Reference (Author, year, n) | Selection | Comparability | Outcome/ Exposure |
|--|-----------|---------------|----------------------|
| Dialektakou 2008 [12] | *** | ** | * |
| Dubois 2008 [13] | *** | * | ** |
| Harding 2008 [14] | **** | * | * |
| Duncan 2008 [15] | *** | * | ** |
| Croezen 2009 [16] | *** | ** | ** |
| Nagel 2009 [17] | *** | * | * |
| Sun 2009 [18] | *** | ** | * |
| Maddah 2010 [19] | *** | * | * |
| Isacco 2010 [20] | *** | * | * |
| Deshmukh- Taskar 2010 [21] | *** | * | * |
| So 2011 [22] | *** | * | ** |
| Tin 2011 [23] | *** | * | * |
| Mushtaq 2011 [24] | **** | ** | ** |
| Kuriyan 2012 [25] | *** | * | * |
| Kyriazis 2012 [26] | *** | * | * |
| Van Lippevelde 2013 [27] | *** | * | * |
| Januszek- Trzciąkowska 2014 [28] | *** | * | * |
| Kupers 2014 [29] | *** | * | ** |
| O'Neil 2015 [30] | *** | * | ** |
| Smetanina 2015 [31] | *** | * | ** |
| Zakrzewski 2015 [32] | *** | * | ** |
| Wijtzes 2016 [33] | *** | * | ** |
| Fayet-Moore 2016 [34] | *** | * | * |
| Alsharairi 2016 [35] | *** | * | * |
| Fayet-Moore 2017 [36] | *** | * | * |
| Smith | *** | * | * |

| | | | |
|------------------------|------|---|----|
| 2017 [37] | | | |
| Gotthelf 2017 [38] | *** | * | ** |
| Nilsen 2017 [39] | *** | * | ** |
| Kesztyus 2017 [40] | **** | * | ** |
| Zalewska 2017 [41] | *** | * | * |
| Coulthard 2018 [42] | *** | * | ** |
| Tee 2018 [43] | *** | * | ** |
| Archer 2018 [44] | *** | * | * |
| Smith 2010 [11] | *** | * | * |
| Shafiee 2013 [45] | *** | * | ** |
| Ho 2015 [46] | *** | * | ** |
| Marlatt 2016 [47] | *** | * | ** |

Supplementary Table 2. Newcastle - Ottawa Quality Assessment Scale for studies on metabolic variables and skipping breakfast

| Reference (Author, year, n) | Selection | Comparability | Outcome/ Exposure |
|-----------------------------------|-----------|---------------|----------------------|
| Smith 2010 [11] | *** | * | * |
| Monzani 2013 [48] | *** | * | * |
| Shafiee 2013 [45] | **** | * | ** |
| Ho 2015 [46] | **** | * | ** |
| Osawa 2015 [49] | *** | * | ** |
| Marlatt 2016 [47] | **** | * | ** |