**A reader’s guide to the tables**

The main aim of this scoping review is to assess what the literature can tell us about the extent to which gendered differences in socioeconomic conditions can explain sex differences in disabilities and mobility impairments in later life.

After searching three databases (Medline, Web of Science Core Collection & Cinahl) we ended up with 7 555 articles. As a first step we browsed the titles and abstracts, which allowed us to discard 7194 articles. After that we proceeded to read the full texts of the remaining 361 papers. Of those, six articles fulfilled the inclusion criteria and were included in the analyses. This was fewer than we expected, but several of the studies included several datasets and outcomes – so, in the end the analysed material is extensive.

These tables include the primary data extraction (tables 2-4) and an exploratory attempt to make sense of the findings (table 5).

In tables 2-4 the studies are presented by type of statistical analysis. Table 2 presents the results from the studies that used GLM regressions (binary and multinomial logistic models). Here we present the effect sizes in terms of odds ratios, and the contribution of the socioeconomic variables are estimated using the absolute scale difference model (100\*(βunadjusted model – βadjusted model)/ βunadjusted model). The contribution (%) should be interpreted as the proportion of the initial sex differences that can be attributed to gendered differences in the distribution of socioeconomic conditions.

Table 3 shows the corresponding estimates from linear regression models, calculated in the same way.

Table 4 shows similar estimates from the two studies that have used decomposition methods. These are the only two studies that have explicitly addressed our initial research question.

As you can see, the vast majority of the studies show sex differences in disabilities and mobility impairments. Most studies also suggest that these sex differences can be partly, but not wholly, attributed to gendered differences in socioeconomic conditions. However, the magnitude of the estimates varies wildly. In table 5 we have tried to slice the cake in different ways, to see if we can make sense of these variations. It is not self-evident how the results should be interpreted, and we do not suggest that the table should be presented like this in the final manuscript – but somehow, we would like to sum up the results.

So, this is perhaps our main question at this point. How should we sum up and present the results in the best way?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 2. Associations between sex, disabilities and functional impairments and proportions of the associations attributable to socioeconomic conditions. Studies based on GLM regressions. \* | | | | | | |
|  |  | Crude |  | Adjusted |  | Contribution |
| Outcome | Region/Country | OR | 95% CI | OR | 95% CI | (%) |
|  |  |  |  |  |  |  |
| SPPB<8 | Natal, Brazila | **1.67** | **(1.14 – 2.45)** | **1.70** | **(1.15 – 2.50)** | -3.5 |
|  | Manizales, Colombiaa | **1.97** | **(1.06 – 3.65)** | 1.87 | (0.99 – 3.53) | 7.7 |
|  | Tirana, Albaniaa | **2.38** | **(1.53 – 3.69)** | **2.03** | **(1.31 – 3.16)** | 18.3 |
|  | Saint-Hyacinthe, Canadaa | 1.78 | (0.81 – 3.87) | 1.50 | (0.67 – 3.35) | 29.7 |
|  | Kingston, Canadaa | 1.16 | (0.58 – 2.33) | 1.16 | (0.56 – 2.36 | 0.0 |
|  |  |  |  |  |  |  |
| Impaired mobility | Natal, Brazila | **2.25** | **(1.75 – 2.89)** | **2.16** | **(1.68 – 2.77)** | 5.0 |
|  | Manizales, Colombiaa | **1.51** | **(1.23 – 1.87)** | **1.45** | **(1.18 – 1.79)** | 9.8 |
|  | Tirana, Albaniaa | **1.70** | **(1.39 – 2.08)** | **1.65** | **(1.34 – 2.02)** | 5.6 |
|  | Saint-Hyacinthe, Canadaa | **2.43** | **(1.59 – 3.70)** | **2.12** | **(1.38 – 3.25)** | 15.4 |
|  | Kingston, Canadaa | 1.17 | (0.78 – 1.75) | 1.15 | (0.76 – 1.72) | 11.0 |
|  |  |  |  |  |  |  |
| ADL-limitations | Natal, Brazila | **1.62** | **(1.19 – 2.21)** | **1.62** | **(1.19 – 2.21)** | 0,0 |
|  | Manizales, Colombiaa | 1.38 | (0.99 – 1.93) | 1.39 | (0.99 – 1.95) | -2.2 |
|  | Tirana, Albaniaa | **1.57** | **(1.19 – 2.07)** | **1.40** | **(1.05 – 1.86)** | 25.4 |
|  | Saint-Hyacinthe, Canadaa | **1.70** | **(1.06 – 2.74)** | 1.44 | (0.89 – 2.34) | 31.3 |
|  | Kingston, Canadaa | **1.15** | **(0.79 – 1.66)** | 1.12 | (0.77 – 1.63) | 18.9 |
|  | USAb | **1.60** | **(p<0.001)** | **1.34** | **(p<0.01)** | 38.6 |
|  |  |  |  |  |  |  |
| Squattingc | USA | **1.61** | **(1.48 – 1.75)** | **1.55** | **(1.41 – 1.70)** | 8.0 |
|  | Taiwan | **2.04** | **(1.42 – 2.93)** | **1.89** | **(1.23 – 2.90)** | 10.7 |
|  | Mexico | **1.84** | **(1.55 – 2.20)** | **1.83** | **(1.51 – 2.22)** | 0.9 |
|  | China | **1.22** | **(1.10 – 1.36)** | **1.14** | **(1.01 – 1.29)** | 34.1 |
|  | Indonesia | **1.37** | **(1.05 – 1.79)** | 1.16 | (0.84 – 1.61) | 52.9 |
|  |  |  |  |  |  |  |
| Stairsc | USA | **1.96** | **(1.80 – 2.13)** | **1.87** | **(1.71 – 2.04)** | 7.0 |
|  | Taiwan | **2.63** | **(1.93 – 3.57)** | **2.04** | **(1.51 – 2.76)** | 26.3 |
|  | Mexico | **1.97** | **(1.66 – 2.34)** | **1.92** | **(1.61 – 2.30)** | 3.8 |
|  | China | **1.33** | **(1.17 – 1.50)** | **1.20** | **(1.05 – 1.37)** | 36.1 |
|  |  |  |  |  |  |  |
| Carryingc | USA | **2.66** | **(2.37 – 2.97)** | **2.40** | **(2.13 – 2.71)** | 10.5 |
|  | Taiwan | **5.13** | **(3.09 – 8.54)** | **4.76** | **(2.78 – 8.15)** | 4.6 |
|  | Mexico | **2.62** | **(2.03 – 3.38)** | **2.43** | **(1.82 – 3.26)** | 7.8 |
|  | China | **2.28** | **(1.97 – 2.63)** | **2.15** | **(1.82 – 2.54)** | 7.1 |
|  | Indonesia | **2.66** | **(2.23 – 3.16)** | **2.23** | **(1.83 – 2.72)** | 18.0 |
|  |  |  |  |  |  |  |
| Dressingc | USA | **1.58** | **(1.36 – 1.84)** | **1.41** | **(1.21 – 1.65)** | 24.9 |
|  | Taiwan | **2.16** | **(1.12 – 4.19)** | 1.55 | (0.74 – 3.25) | 43.1 |
|  | Korea | 0.74 | (0.52 – 1.06) | **0.60** | **(0.40 – 0.92)** | -69.7 |
|  | Mexico | **1.43** | **(1.07 – 1.90)** | **1.46** | **(1.09 – 1.95)** | -5.8 |
|  | China | 1.04 | (0.85 – 1.26) | 0.86 | (0.70 – 1.07) | - † |
|  | Indonesia | **2.00** | **(1.58 – 2.53)** | **1.85** | **(1.41 – 2.42)** | 11.2 |
|  |  |  |  |  |  |  |
| Bathingc | USA | **1.33** | **(1.10 – 1.62)** | 1.11 | (0.89 – 1.38) | 63.4 |
|  | Taiwan | **2.15** | **(1.67 – 2.78)** | **1.90** | **(1.15 – 3.12)** | 16.1 |
|  | Korea | 0.96 | (0.68 – 1.37) | 0.80 | (0.53 – 1.20) | - † |
|  | Mexico | 1.29 | (0.88 – 1.90) | **1.20** | **(0.78 – 1.86)** | 28.4 |
|  | China | 1.09 | (0.92 – 1.30) | 0.92 | (0.75 – 1.12) | - † |
|  | Indonesia | **1.96** | **(1.42 – 2.70)** | **1.59** | **(1.05 – 2.41)** | 31.1 |
|  |  |  |  |  |  |  |
| Toilettingc | USA | **2.09** | **(1.64 – 2.66)** | **1.83** | **(1.41 – 2.36)** | 18.0 |
|  | Taiwan | **2.29** | **(1.30 – 4.02)** | 1.94 | (0.95 – 3.98) | 20.0 |
|  | Korea | **0.53** | **(0.31 – 0.92)** | **0.50** | **(0.26 – 0.97)** | -9.2 |
|  | Mexico | 1.50 | (0.98 – 2.30) | 1.33 | (0.84 – 2.13) | 29.7 |
|  | China | **1.22** | **(1.06 – 1.40)** | 1.11 | (0.94 – 1.30) | 47.5 |
|  | Indonesia | 1.26 | (0.74 – 2.16) | 1.02 | (0.54 – 1.95) | 91.4 |
|  |  |  |  |  |  |  |
| \* Statistically significant associations are marked in bold.  a Zunzunegui et al. 2015  b Martin, Zimmer & Lee 2017  c Wheaton & Crimmins 2016  † No contribution is calculated as the unadjusted sex difference is <10% | | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3. Associations between sex, disabilities and functional impairments and proportions of the associations attributable to socioeconomic conditions. Studies based on OLS regressions. \*a | | | | |
|  |  | Crude | Adjusted | Contribution |
| Outcome | Region/Country | β | β | (%) |
|  |  |  |  |  |
| IADL | Brazil | **-0.54** | **-0.27** | 51 |
| limitations | Argentina | **-0.55** | **-0.42** | 24 |
|  | Chile | **-0.65** | **-0.24** | 63 |
|  | Mexico | **-0.59** | **-0.21** | 66 |
|  |  |  |  |  |
| ADL | Brazil | **-1.21** | **-1.00** | 17 |
| limitations | Argentina | **-0.97** | **-0.97** | 0 |
|  | Chile | **-1.45** | **-0.92** | 36 |
|  | Mexico | **-1.14** | **-0.67** | 41 |
|  |  |  |  |  |
| \* Statistically significant associations are marked in bold.  a Trujillo et al. 2010 | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 4. Associations between sex, disabilities and functional impairments and proportions of the associations attributable to socioeconomic conditions. Decomposition-based studies.\* | | | | | |
|  |  |  | Difference in | Due to | Contribution |
| Outcome | Region/Country | OR | prevalence | distribution | (%) |
|  |  |  |  |  |  |
| Physical functional | France a | **1.16** | 6.3 | 3.0 | 48 |
| limitations |  |  |  |  |  |
|  |  |  |  |  |  |
| Disability | International b | 2.14 † | 16.4 | 7.4 | 45 |
|  | (57 countries) |  |  |  |  |
| \* Statistically significant associations are marked in bold.  a Cambois et al. 2017  b Hosseinpoor et al. 2012  † No odds ratio was given for the sex difference in the paper. This is estimated from the raw prevalence given in Table 1. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 5. Percentage of sex gap attributable to socioeconomic conditions. In total and stratified by region, outcome, effect size, socioeconomic indicators, and study type. | | | | | |
|  |  | Median | Min | Max | Nr. Associations |
|  |  |  |  |  |  |
| Total |  | 18% | -6% | 91% | 53 |
|  |  |  |  |  |  |
| By region | Natal, Brazil | 0% | -3% | 5% | 3 |
|  | Manizales, Colombia | 8% | -2% | 10% | 3 |
|  | Tirana, Albania | 18% | 6% | 25% | 3 |
|  | France | 48% | 48% | 48% | 1 |
|  | Saint-Hyacinthe, Canada | 30% | 15% | 31% | 3 |
|  | Kingston, Canada | 11% | 0% | 19% | 3 |
|  | USA | 18% | 7% | 63% | 7 |
|  | Taiwan | 18% | 5% | 43 | 6 |
|  | Koreaa | - | - | - | - |
|  | Brazil | 34% | 17% | 51% | 2 |
|  | Argentina | 12% | 0% | 24% | 2 |
|  | Chile | 50% | 36% | 63% | 2 |
|  | Mexico | 18% | -6% | 66% | 8 |
|  | China | 35% | 7% | 48% | 4 |
|  | Indonesia | 31% | 11% | 91% | 5 |
|  | International | 45% | 45% | 45% | 1 |
|  |  |  |  |  |  |
| By Outcome | SPPB<8 | 8% | -3% | 30% | 5 |
|  | Impaired mobility | 10% | 5% | 15% | 5 |
|  | ADL-limitations | 22% | -2% | 41% | 10 |
|  | IADL-limitations | 57% | 24% | 66% | 4 |
|  | Disability | 45% | 45% | 45% | 1 |
|  | Physical limitations | 48% | 48% | 48% | 1 |
|  | Squatting | 11% | 1% | 53% | 5 |
|  | Stairs | 17% | 4% | 36% | 4 |
|  | Carrying | 8% | 5% | 18% | 5 |
|  | Dressing | 18% | -6% | 43% | 4 |
|  | Bathing | 30% | 16% | 63% | 4 |
|  | Toiletting | 30% | 18% | 91% | 5 |
|  |  |  |  |  |  |
| By effect size b | OR 1.10 – 1.49 | 34% | -6% | 91% | 13 |
|  | OR 1.50 – 1.99 | 9% | -3% | 39% | 16 |
|  | OR ≥ 2.00 | 16% | 5% | 45% | 16 |
|  |  |  |  |  |  |
| By social | Education & childhood SES | 39% | 39% | 39% | 1 |
| variables | Education & marital status | 18% | -6% | 91% | 27 |
|  | Education & income | 10% | -3% | 45% | 15 |
|  | Occupation | 48% | 48% | 48% | 1 |
|  | Vector of SESc | 39% | 0% | 66% | 8 |
|  |  |  |  |  |  |
| Type of study | Regression based (GLM) | 16% | -6% | 91% | 43 |
|  | Regression based (OLS) | 39% | 0% | 66% | 8 |
|  | Decomposition based | 47% | 45% | 48% | 2 |
|  |  |  |  |  |  |
| a No contribution is calculated for Korea, as the sex gap was reversed in the Korean study.  b Do not include Trujillo et al. 2010, as no comparable effect sizes can be calculated for that study.  c Level of schooling, illiteracy, age when started to work, current work status, age at retirement,  type of occupation, total income from different sources (pension, family transfers, banking  income, welfare subsidy), home ownership, list of household assets (e.g., refrigerator, washer,  water heater, microwave, television, telephone, VCR, radio player, heating, air conditioning, fan)  Availability of health insurance, includes the following categories: social security, private and  public insurance | | | | | |