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| **COLOR CODE** | **RANKING CODE** |
| DA LEGGERE, INTERESSANTE | 0: very relevant (method+topic) |
| LETTO, UTILE | 1: relevant (method+topic) |
|  | 2: interesting (topic) |
|  | 3: kinda interesting (topic) |
|  | 4: just literature review |
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|  | **#MENTAL HEALTH** | | | |
| 0 | Frijters et al. (2010), *Mental Health and Labour Market Participation: Evidence from IV Panel Data Models* | * Instrumental variables on panel data * Relation between MH and labor market participation | * Panel data * Reduction in MH has substantial negative impact on the probability of labor market participation * a one standard deviation decrease in mental health decreases the probability of participation by around 17 percentage points * his effect is larger for females and for older individuals   Intro   * One of the most important ways that mental illness impacts on individuals (and their families) is by lowering their ability to actively participate in the labour market * Issues of working on MH 🡪 labor market participation * Reverse causality * Individual heterogeneity (omitted vars) * Measurement of MH * Other studies that have used IV: Ettner et al., 1997; Hamilton et al., 1997; Marcotte et al., 2000; Alexandre and French, 2001; Chatterji et al., 2007; Ojeda et al., 2009; and Zhang et al., 2009. * Most studies are correlational. * Instruments from past papers: * parental psychological problems, (Ettner et al., 1997; Marcotte et al., 2000) * individual experiences of mental illness in the past (Ettner et al., 1997; Chatterji et al., 2007) * mental health in the three months before the current survey (Hamilton et al., 1997) * religiosity (Alexandre and French, 2001; Chatterji et al., 2007) * perceived social support (Hamilton et al., 1997; Alexandre and French, 2001; Ojeda et al., 2009) * participation in physical activity (Hamilton et al., 1997   results of these studies suggest that mental illness has significant costs in terms of labour market participation and other work-related outcomes such as wages and absenteeism   * THIS PAPER INSTRUMENT: recent death of close friend.   Literature:   * Marcotte et al. (2000) reviewed the US literature and concluded that each year in the US 5-6 million workers “lose, fail to seek, or cannot find employment as a consequence of mental illness.” * Stewart et al. (2003) found that workers in the US with depression experienced significantly more health-related ‘Lost Productivity Time’ each week (5.6 hours) compared to 5 workers without depression (1.5 hours) * Kessler et al. (2008), who used US survey data from 2001 to 2003 and found that respondents with a serious mental illness had annual earnings of about $16,000 lower than individuals without such an illness (controlling in a regression model for socioeconomic characteristics). This difference was far higher for males ($26,435) than females ($9,302).   Method:   * Instrument: recent friend death * *The only concern we have is that the death of a close friend might lead to the receipt of inheritance, which if substantial enough, might impact labour supply. We explicitly take account of this in our estimations by controlling for recent windfall financial gains. It turns out, however, that controlling or not for such gains makes no discernable difference to our estimates because the inheritances involved are minimal*. * The outcome of interest in this study is labour market participation 🡪 employed or unemployed but looking for work   HOW TO JUSTIFY A MEASURE OF MENTAL HEALTH: Figure 1 shows the nonparametric cross-sectional relationship between the mental health score and participation. The strength and size of the presented relationship is very large. |  |

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|  | **#LONELINESS #SHAREDATA #COVID-19** | | | |
| 4 | Fokkema et al. 2012, *Cross-national differences in older adult loneliness* | * Share data (W2) * Logistic model * Older adult loneliness: not married, economic deprivation, poor health are predictors of loneliness. Contact with parents, adult children, social participation, support to family members were important in prevention and alleviation of loneliness. | * Levels of loneliness differ across societies. North-South gradient: older people in northern countries in EU are less lonely than southern peers. Generally found (Jylha & Jokela, 1990; Sundstr ¨ om, Fransson, Malmberg, & Davey, 2009; Walker, ¨ 1993) * Specification: * Geo indicators: north, south, west, central Europe. * Explanatory factors: demographic, socioeconomic, health and social networks. * Social trends affecting loneliness: * More old adults live alone * Marital support is good for physical and mental well-being * Living alone is bad for network connections, outreach to people and social iniziative * Gender differences: older women more likely to be widows * Increasing rates of divorce and remarriage * Linked to secularization and individualization * Increase in life expectancy: more years with disability, shrinking social networks because of death of peers * Northern euro countries were the first to experience these trends * Pension schemes, social security and healthcare are ways to enhance self-reliance of old people * **Loneliness (subjective) =/= social isolation (objective)** * *Demographic differences in countries* affect loneliness: * Age, gender and marital status composition matter * Loneliness increase with age (>75), more common among older women (widowhood), and being unmarried. * Low socioeconomic status (education and income) associated with higher loneliness. * Less friends, lower quality of connections, social exclusion. * *Based on their less favorable social status, we expect relatively high proportions of lonely older adults in the central and southern European countries of Poland, the Czech Republic, Greece, Spain, and Italy (H2)*. * Health (physical and mental) and loneliness are related. Reluctance to see doctor, seek help, remembering to take medication. * Countries are different in the size and composition of social networks. Northern countries have fewer expectations about community. *Contact with friends and participation in volunteering and social clubs is* ***lower in more collectivistic countries***. * No data on the size and composition of social networks in W2. Might be present in W8.   Method:   * Use longitudinal data from SHARE (SHARELIFE) * Loneliness measured from the CES-D (depression) scale. Binary value =1 if person felt lonely during past week. * Demographic characteristics: age, gender, marital status. * Socioeconomic status: education, employed, perceived difficulty with current income. * Health: perceived health, functional limitations (ADL, IADL), sight or hearing impairment. * Social embeddedness: has children, how often they have contact with them (1-4), has parents, parents’ health, social participation. * Support exchange: gives regular help with personal care given in households, informal help given to people outside household and to whom (family, non family), looking after grandchildren, informal help received.   Results:   * Descriptive stats * Multivariate logistic regression * Model 1 provides the basic differences in loneliness between countries * Model 7 of Table 3 provides an overview of the loneliness rate in the 14 European countries after we took into account country-level differences in demographic characteristics, wealth, health, social embeddedness, and support exchange. in Model 7 only two countries have significantly higher levels of loneliness: Italy and France. * As regards France, the frequent reports of loneliness among their older residents might be a methodological artifact. As regards Italy, part of the explanation lies in economic deprivation and poor health in the older adult population. * High levels of loneliness in Spain, Italy, the Czech Republic, and Poland are largely associated with financial and health problems among their older adult population | * No data on the size and composition of social networks in W2. Might be present in W8.   NOT METHODOLOGICALLY USEFUL.  GOOD FOR LITERATURE REVIEW. |
| 4 | Niedzwiedz et al. 2016, *The relationship between wealth and loneliness among older people across Europe: Is social participation protective?* | * SHARE W5 (2013), not sharelife * Logistic model * Loneliness is highest in poorest groups, lowest for the richest. | * Aims: * Examine the relationship between household wealth, social participation and loneliness. * Investigate whether relationships vary by type of social participation (charity/volunteer work, sports/social clubs, educational/training course, and political/community organisations) and gender. * Examine whether social participation moderates the association between wealth and loneliness   Method:   * Loneliness was measured using the short version of the Revised-University of California, Los Angeles (R-UCLA) Loneliness Scale * Multilevel logistic model stratified by gender.   Conclusion:   * Participation in external social activities may help to reduce loneliness among older adults and potentially acts as a buffer against the adverse effects of socioeconomic disadvantage * least wealthy older people experience greatest risk of loneliness and they are also less likely to participate in formal social activities compared to wealthier individuals * Frequent participation in formal social activities also moderated the relationship between household wealth and loneliness, suggesting that for socially-disadvantaged groups, taking part in external activities may act as a buffer against experiencing loneliness, particularly among men * for both genders, being involved in sports and social clubs, or volunteer/charity work was most strongly related to the reduced likelihood of loneliness, compared to other social activities | * considered wave did not contain info on religious association |
| 0 | Luchetti et al 2019*, Loneliness is associated with risk of cognitive impairment in the Survey of Health, Ageing and Retirement in Europe* | * SHARELIFE data on loneliness and cognitive impairment to evaluate their relation * test whether the association varies by age, sex, education level, and marital status * w2 – w6 | * Feeling lonely was associated with increased risk of incident cognitive impairment (HR = 1.31, 95%CI = 1.19-1.44), after accounting for age, sex, education, and SHARE country strata. * The association was robust but reduced in magnitude when controlling for clinical and behavioral risk factors, health-related activity limitations, social isolation, social disengagement, and depressive symptoms. * *The association was* ***not*** *moderated by socio-demographic factors and was also apparent when using the three-item loneliness scale instead of the single-item measure* * Loneliness and alzeihmers and dementia * Increased dementia risk, robust to controlling for social isolation, depression and other clinical and behavioral factors that impact cognition. * Factors that mediate **loneliness-cognition relation**: * Less healthy behavior * More likely depressed * Preventable?   Longitudinal data: 11 years follow up.   * Controls: social isolation/disengagement, health related activity limitations, depressive symptoms, and other behavioral and clinical risk factors for cognitive impairment and dementia.   Measure of loneliness:   * Center for Epidemiological Studies Depression scale * Three-item UCLA loneliness scale   Cognitive impairment:   * Memory task in SHARE, animal fluency task   Social isolation:   * indicators of social isolation: : being single, separated from spouse, divorced, or widowed (yes/ no), having rare contact with children or no children (yes/no), and household size (3+ members, 2 members, or only 1 member). * Social engagement: voluntary or charity work, attended an educational or training course, gone to a sport, social or other kinds of clubs, or taken part in a political or community-related organization.   Covariates:   * Age (years), sex (0 = male, 1 = female), and educational level (from 0 = Pre-primary education to 6 = Second stage of tertiary education) * clinical and behavioral covariates, health-related activity limitations, and depression symptoms * BMI, hypertension (y/n), diabetes (y/n) * Global Activities Limitation Index * EURO-D depression scale (depressed mood, pessimism, suicidality, guilt, troubles with sleep, loss of interest, irritability, change in appetite, fatigue, concentration, enjoyment, and tearfulness) * two dummy-coded variables to detect transition into widowhood (yes/no) and increases in health-related limitations (yes/no) over the follow-up 🡪 potentially increase risk of cognitive impairment   Strategy:   * Cox regression hazard models were used to test whether loneliness at baseline was associated with incident cognitive impairment over up to 11 years of follow-up * used because it evaluates time-to-event from baseline predictors   Findings:   * For every one-point increase in loneliness, there was a 31% increased risk of cognitive impairment over the follow-up, after controlling for age, sex, and education * The association was robust and remained significant (though reduced) when accounting for indicators of social isolation/disengagement, health-related limitations, and depressive symptoms. It was also significant after accounting for widowhood and changes in health status over the follow-up. Moreover, the association did not vary by age, sex, education, nor marital status * In our sample, the association between loneliness and cognitive impairment was reduced in size when accounting for risk factors such as depressive symptoms | * Loneliness – Alzheimer’s / dementia association * Boss L, Kang D-H, Branson S. Loneliness and cognitive function in the older adult: a systematic review. Int Psychogeriatr. 2015;27(4):541- 553. https://doi.org/10.1017/S1041610214002749. 3. * Wilson RS, Krueger KR, Arnold SE, et al. Loneliness and risk of Alzheimer disease. Arch Gen Psychiatry. 2007;64(2):234-240. https:// doi.org/10.1001/archpsyc.64.2.234. 4. * Sundström A, Nordin Adolfsson A, Nordin M, Adolfsson R. Loneliness increases the risk of all-cause dementia and Alzheimer's disease. J Gerontol Ser B. 2019;gbz139. https://doi.org/10.1093/geronb/gbz139. |
| 5 | Lee 2020, *Loneliness among older adults in the Czech Republic: A socio-demographic, health, and psychosocial profile* | * SHARE w6 of Czech >65yo * Descriptive stats, ANOVA and regression analysis * Studies relationships between loneliness and health, social network measures, subjective and psychological well-being | Findings:   * Demographic variation was substantial with the sample of the Czech elderly. The widowed, divorced, and young-old were significantly related to higher loneliness. A U-shaped association was identified between household size and loneliness. Loneliness was also significantly related to education levels and types of living area, but in a complex non-linear way. In contrast, there was no gender difference. Regression results indicated that poor health conditions and social environment were significantly associated with Czech elderly’s loneliness. Loneliness appeared to be linked to subjective and psychological well-being among Czech older adults   **Reverse causality issue:**   * Stroke, diabetes and cardiometabolic health conditions 🡪 cause loneliness * Lonely people have more chronic illness, motor impairment, doctor visits. * According to Litwin and Shiovitz-Ezra (2010), different types of social network appeared to be linked to loneliness, anxiety, and happiness: the greater social capital, the better well-being * *the importance of loneliness should be amplified by its impact on subjective well-being and quality of life outcomes*   Measurement:   * loneliness measured with UCLA loneliness scale. Multi idem index of loneliness was created as the sum of responses to individual items. * Controls: health variables (chronic disease, BMI, pain, self rated health, ADL index, physical activity engagement. * Five social network quality and quantity indicators: number of social network, avg contact with network, emotional closeness to social network. * SN is partner, children, parents, siblings, friends, neighbors, formal help or others. * Self reported satisfaction with SN * Measure of subjective well being uses 2 indexes: CASP12 scale, life satisfaction. * EURO-D scale for mental and emotional health of respondents.   Interesting thing in descriptive stats:   * Living in rural area associated with less loneliness.   Health and loneliness (not causal, very endogenous):   * Loneliness significantly related to health: poor health, chronic disease, pain, limitation of activity, lower engagement in sports or other activity. * Volume of social network and loneliness are positively associated. | * Focus on Czech elderly is too specific * Methodologically not innovative, barely relevant   Good for literature review.  WARNING: no mention of reverse causality or endogeneity when doing regression analysis 🡪 results are not causal.  TERRIBLE PAPER   * Shiovitz Ezra 2010 the role of social relations in predicting loneliness (social network 🡪 loneliness) |
| 4 | [SHORT REPORT] Jarach et al (2021), *Social isolation and loneliness as related to progression and reversion of frailty in the Survey of Health Aging Retirement in Europe (SHARE)* | * Relation between frailty and loneliness * SHARE w5-w6 | * Average levels of loneliness or social isolation were reported by a quarter and two thirds of the population, respectively. * Avg and high level of loneliness worsens frailty risk * High loneliness prevents remission   Measurements;   * UCLA loneliness scale * Social isolation score built from other Y/N variables: * Unmarried/cohabiting * Less than monthly contact with child * Not doing voluntary or charity work, or organization, classes, groups, club etc   Methods:   * Relative risk ratio (RRR) and confidence intervals * Multinomial logistic regression   “Our findings indicate that tackling social aspects of the life of frail and pre-frail people can reverse their condition” 🡪 it does NOT because of unaddressed endogeneity | WARNING: method is weak, not causal results, no mention of reverse causality  TAKEAWAY: loneliness is not social isolation. |
| 2 | Santini, Koyanagi (2021), *Loneliness and its association with depressed mood, anxiety symptoms, and sleep problems in Europe during the COVID-19 pandemic* | * Medical paper * COVID19 (but in 2020) * Aim: * risk of mental health problems (depressed mood, anxiety symptoms, sleep problems) associated with loneliness during COVID-19 * worsened loneliness 🡪 MH * worsened MH 🡪 loneliness * SHARE w6 (?) | * In 2017, The World Health Organisation’s Global Burden of Disease Study has identified depression as being the single largest contributor to global disability across all diseases, and anxiety ranking sixth * Depression and anxiety in older adulthood are major public health issues 🡪 high prevalence and poor outcomes, impairment in various types of functioning, self neglect and risk of premature mortality and suicide * Loneliness is likely to have accumulated during the pandemic due to mobility restrictions, quarantines, social distancing, and the like   Outcomes:   * (a) any depressed mood; (b) worsened depressed mood; (c) any anxiety symptoms; (d) worsened anxiety symptoms; (e) any sleep problems; (f) worsened sleep problems   Predictors:   * Loneliness and worsened loneliness   Controls:   * country, gender, age, marital/partnership status, employment status, income, financial strain, self-rated health, and anyone close to the respondent having died due to COVID-19   Method:   * Multivariate logistic analysis   Results:   * The prevalence of depressed mood, anxiety symptoms, and sleep problems were 28.6%, 30.4%, and 27.3%, respectively * Worsening among these conditions being 63.5%, 73%, and 34.6%, respectively * The prevalence of loneliness was 29.4% and among those reporting loneliness, the prevalence of worsened loneliness was 39.9% * Loneliness and worsened loneliness were both associated with significantly higher odds for any depressed mood, any anxiety symptoms, and any sleep problems * Worsened loneliness was significantly associated with particularly strong risk for worsened depressed mood, anxiety and sleep problems * People who already had MH issues were much more at risk | * Explores the relation between loneliness and MH with logistic regression in both directions, but in neither does it account for reverse causality (WARNING) * Notices that timing of interview during 2020 affects results: * Wave collected in a period (Jun/Aug 2020) when restrictions were less strong on average than previously or afterwards 🡪 results may be even stronger if collection was done before/after |
| 1 | Arpino et al (2022), *Loneliness before and during the COVID‑19 pandemic—are unpartnered and childless older adults at higher risk?* | * Mitigation efforts might worsen loneliness for unpartnered and childless older adults. * SHARE w8 and SCS1 (corona survey) * Logistic regression model for two binary outcome measures | * concerned about loneliness among older adults, potentially driven by shifts such as decreasing fertility, the increasing prevalence of living alone, and other factors, especially in the United States and Europe * (Aartsen and Jylha 2011; Dahlberg et al. (2022); Holt-Lunstad 2017; Holt-Lunstad et al. 2015; Klinenberg 2016; National Academies of Sciences, Engineering, and Medicine 2020; Verdery et al. 2019; Zoutewelle-Terovan & Liefbroer 2018) * This is particularly a concern for older adults who do not have traditional family ties—like partners and children * (Greenfeld and Russell 2011; Hazer and Boylu 2010; Fokkema et al. 2012; Margolis et al. 2021; Zhang and Hayward 2001) * Loneliness is not social isolation. See paper for references on how smaller social network is a risk factor for loneliness. * *Older people suffered less form increased loneliness during covid*. * Overall, existing studies on COVID-19 and older adults’ loneliness cross-nationally are difficult to compare due to wide variation in study designs in terms of sampling strategies and social contexts (e.g., local, regional, country variation in policy and COVID-19 mitigation strategies). * unpartnered and childless older adults typically have broader networks of extended kin and non-kin ties which may have been more vulnerable to disruption during COVID-19 compared to partner and child ties   Measurement:   * Loneliness: feeling lonely and feeling more lonely during the pandemic 🡪 first indicator of loneliness * the group who felt lonely “often” or “some of the time” received an additional follow-up question during the pandemic (SCS1), asking if they felt *more* lonely during pandemic 🡪 second indicator of loneliness   Explanatory variables:   * Partnership and parenthood status, measured with dummy variables   Controls:   * Sex, age, education, employment, country * Self-reported health, global activity limitation index (GALI)   Results:   * prior to the pandemic, unpartnered parents had the highest risk of loneliness * being unpartnered during the pandemic was associated with a higher likelihood of becoming lonely * being unpartnered and childless were associated with a higher likelihood of staying lonely during COVID-19 * **Increased loneliness during the pandemic, especially for unpartnered and childless** | * Plümper T & Neumayer E (2020) Lockdown policies and the dynamics of the frst wave of the Sars-CoV-2 pandemic in Europe. J Eur Public Policy, 1–21   GREAT FOR LITERATURE REVIEW.  RELEVANT METHODOLOGICAL NOTES:   * “We excluded observations from **Portugal** (because Portugal started the fieldwork of the regular wave 8 only a few weeks before the start of the first lockdown due to the pandemic” * “Data from **Austria** have been removed in a robustness check due to different timing of their SCS1 data collection (July–September).”   FUTURE RESEARCH QUESTIONS TO EXPLOIT:   1. examine additional well-being outcomes, such as anxiety and depression, among childless and unpartnered older adults during the pandemic. 2. future work should explore in-depth information about social interactions (e.g., care and help received, social contacts including digital ones) that may mitigate potential social isolation 3. whether the pandemic levels or reinforces gender differences in loneliness by parenthood and partnership status identified in prior research (Greenfeld and Russell 2011; Zhang and Hayward 2001) 4. Some countries start off less lonely than others: study the cross country differences in the changes in loneliness during the pandemic |
| 0 | Atzendorf Gruber (2022), *Depression and loneliness of older adults in Europe and Israel after the first wave of covid‑19* | * MOST RELEVANT * SHARE corona survey & w8 + macro data from Oxford COVID19 Government Response Tracker (n of deaths per 100000 and n of days with stringent control measures) OxCGRT * Study mental health of older adults (loneliness and depression) * we look at the weeks afterward in order to measure the medium-term consequences of the first wave and the lockdown measures on the mental well-being of older people * retired population >60yo * multilevel binary logistic regression models (individual and country level) + country FE | * Restrictions mean more MH deterioration especially for old and living alone people * MH problems associated with morbidity and mortality in long term, especially for older people (Holt-Lunstad et al 2015) * For old people: cardiovascular, immune and neurocognitive disease (Gerst-Emerson and Jayawardhana 2015) * Krendl and Perry (2020) higher levels of depression and loneliness than they had prior to the pandemic in the US * Same in the US Killgore et al. 2020 study, and in China (wang et al 2020), in Netherlands (Van Tilburg et al 2020) MH remained quite stable * Kim and Jung (2020) show that *distress* with the pandemic is associated with the stringency of policy measures. * Tillburg et al (2020): avg *social* loneliness increased slightly, avg *emotional* loneliness increased strongly.   What influences loneliness?   * Age differences in loneliness * Living arrangements are an important factor (Luhmann and Hawkley 2016, Germany). Unmarried and living alone. * Fokkema and Knipscheer (2007) argue that internet and communication tools (social networks) may ease loneliness in older people * Fingerman et al (2020) in person contact might have non transferable benefits to electronic contact. Krendl and Perry (2020) find that electronic communication does not offset older adult loneliness.   Data:   * Malta excluded because not in OxGRT dataset   Measurement:   * Binary variable for loneliness using corona survey * Binary variable for depression   Individual explanatory variables:   * Age 60-69, 70-79, >80 * Household size * Frequency of social contact (in person, electronic) with children, parents, relative and non relative   Macro explanatory variables:   * N of days with stringent measures * N of cumulated deaths per 100k inhabitants * Political indicators: school closings, workplace closings, canceling of public events, restrictions on gathering size, closing public transport, stay-at-home requirements, restrictions on local movement, and restrictions on international traveling 🡪 stringency index 0-100 from OxGRT   Controls:   * Health worsening * Covid19 infection themselves or of close person * Gender, educ, martial status, financial hardship   Dependent variables:   * Feeling more depressed and feeling lonelier   Method:   * Multilevel binary logistic regression * AIC and BIC for goodness of fit * Median Odds Ratio to measure heterogeneity between countries (MOR>1 means living in countries may explain depression/loneliness)   Logistic regression results:   * Personal contact 🡪 less sad/depressed since outbreak * Electronic contacts 🡪 more likely to be sad/depressed * Cumulated deaths and n of days with stringent measures are associated with feeling sad/depressed * *Depression increases by 20% within 30 days with high stringency measures. If the number of deaths due to COVID-19 would increase by 50 in 100,000 inhabitants, feelings of depression and sadness would increase by 54*% * While feelings of loneliness are on average not significantly increasing with number of deaths, they are for those with more frequent personal contacts * the results cannot be interpreted causally but rather as correlations | Hypotheses are very well stated:  H1a: Number of deceased and the stringency of policy implications account for country variation in depression and loneliness  H1b: Both the general situation of the pandemic, approximated by the number of deceased, and the duration of stringent policy measures have a significant influence on older people’s well-being at the micro-level.  H2: The oldest age group and those living in single households have an increased risk of intensified feelings of depression and loneliness after the first COVID-19 wave  H3: Electronic contacts do not significantly reduce the risk of feeling more depressed or lonely as a consequence of the pandemic |
| 1 | Hajek, Konig (2022), *Which factors contribute to loneliness among older Europeans? Findings from the Survey of Health, Ageing and Retirement in Europe Determinants of loneliness* | * SHARE w5 – w7 * Linear FE regression * What are determinants of loneliness? | Method:   * Loneliness was assessed using the three-item loneliness scale. * As explanatory variables, we included age, marital status, income, self-rated health, depressive symptoms, functional decline, cognitive functioning and chronic diseases. * Exploiting the features of panel data and mitigating the problem of unobserved heterogeneity, linear FE regressions were used * Outcome is loneliness UCLA scale   Results:   * Loneliness increases with age, changing from married and living together to another status * Decreases with log income, self-rated health, functional decline * Increases in depressive symptoms * Decreases in cognitive functioning * Not associated with changing in chronic diseases (surprising, unlike Kristensen et al 2019)   Resources:   * Multimorbidity and the onset of obesity are associated with greater loneliness 🡪 Hajek and Konig 2019, Kristensen et al 2019 | * Does not use logistic analysis, good for me * Using FE eliminates time constant factors such as genetics, which would bias estimates.   MENTIONS ENDOGENEITY!!! |

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|  | **#GENERAL TOPICS** | | | |
| 4 | Shiovitz-Ezra, Leitsch (2010), *The Role of Social Relationships in Predicting Loneliness: The National Social Life, Health, and Aging Project* | * associations between objective and subjective social network characteristics and loneliness in later life * Data from National Social Life, Health, and Aging Project (47-85yo in US), NSHAP w1 * Hierarchical linear regression * Predict loneliness across marital status | * Cognitive theory 🡪 **Loneliness**, according to this theoretical point of view, results from the perceived discrepancy between desired and actual social relationships or the subjective gap between one’s optimal levels of social relationships and achieved levels of same * Rising phenomenon and has effect of physical and MH * Loneliness suicide in Stravynski and Boyer 2001 * two domains of the social network form the most likely determinants of loneliness among older adults: * network size and frequency of interaction * quality of social ties measured subjectively * social interaction can also be negative: Rook and Pietromonaco 1987, Ryehlman and Wolchik 1990   measurement:   * loneliness using revised UCLA (R-UCLA) shorter from 20 item to 3 item * social network measured as: marital status, n of children and grandchildren, n of relatives and friends, frequency of social contact with categories. Subjective measures of SN satisfaction.   Covariates:   * health status as self reported * sociodemographic data (gender, educ, ethnicity, subjective relative income)   Method:   * Correlations between predictors and loneliness * Hierarchical linear regression to examine the association between measures of objective/subjective SN and the importance of each domain in predicting loneliness * Compute differences in R^2 …   Results:   * The direction of the relationships between the subjective network characteristics and loneliness were as expected * concerning relatives and friends, the negative characteristics more dominantly associated with loneliness * *negative* aspects of social relations are stronger predictors | * Method not very good: uses differences in R^2 to determine if a model is better than the other. * Overall, they find subjective measures to be better predictors of loneliness than objective measures.   CORRELATIVE STUDY, NOT CAUSAL. |
| 1 | Sirven Debrand 2012, *Social capital and health of older Europeans: Causal pathways and health inequalities* | * SHARELIFE * Studies the Granger causality between health and social capital for older people in EU * W1 – W3 * Bivariate recursive probit model to investigate the influence of baseline social capital on health and the impact of baseline health on current participation in social activity | * Reverse causality between social capital and health: * Social capital 🡪 health is weaker * Health 🡪 social capital is very strong   Social capital:   * Enhances the diffusion of health information * Fosters healthy behavior * Improves mental health   Methodological approach:   * A time-based approach (à la Granger) is considered in which a two-equation recursive model is used to simultaneously investigate (i) the influence of baseline social capital on current health e controlling for baseline health and other current covariates, and (ii) the impact of baseline health on current participation in social activities – controlling for baseline social capital and other current covariates   Measurement:   * Social capital indicators: * Dummy for involvement in social activities derived from participation in voluntary/charity work, training course, sport/social club, religious organization, and political/community organization * Health measures: * Poor self-rated health (SRH) * Reporting limitations in ADL’s * Limitations with activities (GALI) * Limitations with mobility, arm function and fine motor function * Low grip strength * Depressive symptoms (EURO-D scale) * Relative cognitive impairments (memory test and executive functions test) * Covariates: age (in class), gender, education (highest diploma obtained), living with spouse or partner, labor market status (employed), log of household net income per consumption unit (corrected for Purchase Power Parity), and country dummies * Special attention was dedicated to the following variables: being born in the country of residence; reporting a better relative performance in math and language at school when aged 10; having been in a hospital for more than a month before the age of 10; self-rating own health at 10 years old excellent or very good; having encountered periods of poor health before the age of 10; an index of the features of accommodation when aged 10 (ranging from (0) poor to (6) comfortable); the log of the number of moves from one accommodation to another so far; having ever worked in a voluntary association before the start of wave 1; and, a variable of household size when aged 10 🡪 initial conditions influence and life-course experience effects   Why not use IV?   * However, the instrumental variables (IV) estimators do not make clear if the influence of social capital on health could be overestimated (Folland, 2007), underestimated (Rocco & Suhrcke, 2008)   MODEL:     * Sample selection issue: individual health H or social participation D are not randomly distributed across the sample * Entanglement of state dependency and individual heterogeneity is also an issue. Would make parameters inconsistent. * Solve with Mundalak specification: parametrize the individual effect by inserting the average value of the covariates over the time span in the equations. * Final model: * Since t ¼ 2 in our case, the model can be estimated by Maximum Likelihood with a standard bivariate Probit routine   Results:   * Healthy worker effect: more healthy people will have higher change of being economically active. Healthy means less poor self rated health, limitation with activities, limitation with mobility and depressive symptoms. * Living with spouse/partner reduces depressive symptoms and poor self rated health * Richer people have lower propensity to be in poor health * Country dummies matter 🡪 north south gradient in participation in social activities (more participation in the north) * Probability of being involved in social activities increases from 50-65 (retirement and more free time), decreases with older ages (worse health) * Education is strongly associated with social capital * Gender differences have low explanatory power * Income does not appear to be a significant determinant of social participation   Robustness checks:   * Change thresholds for health variables (not for mental health) * Second, we wanted to check whether the main influence of social participation was actually due to physical activity since “sport clubs” belongs to one of the categories of the social activities in SHARE   *Does social capital contribute to better health?*   * Dynamic recursive Probit models suggest that taking part into social activities in 2004e05 significantly reduces the chances of poor health in 2006e07 for SHARE respondents, in 11 European countries, once we control for baseline health and the usual current covariates * No significant effect was ever found here in the case of low grip strength.   *Does social capital contribute to health inequalities?*   * Our findings indicate that the average causal effect of social participation on health is always significantly smaller than the “feedback effect” from health on social participation. * According to robustness checks based on changes in cutpoints in health measures, it appeared in some cases that social participation may have decreasing returns on health. | * Very good paper. * Good methodological approach. |
| 1 | Luo et al (2012), *Loneliness, health, and mortality in old age: A national longitudinal study* | * estimated the effect of **loneliness** at one point on **mortality** over the subsequent six years, and investigated social relationships, health behaviors, and health outcomes as potential mechanisms through which loneliness affects mortality risk among older Americans * adopts cross lagged panel models and autoregressive and cross lagged paths to solve the reverse causality issue * All models were estimated using Full Information Maximum Likelihood estimation with robust standard errors | * explore relation between loneliness mortality health in the US for >50yo 2002-2008 * outcomes: depressive symptoms, health self rated, functional limitations * In cross-lagged panel models that tested the **reciprocal prospective effects of loneliness and health**, loneliness both affected and was affected by depressive symptoms and functional limitations over time, and had marginal effects on later self-rated health * Health (emotional, physical, functional) is a predictor of mortality and thus test for longitudinal effects of loneliness   Loneliness and mortality.   * Our conceptual model posits that the influence of loneliness on mortality is attributable to the relationships between loneliness and social isolation, unhealthy behaviors, and poor health * Our theoretical model of loneliness holds that loneliness activates implicit hypervigilance for social threat in the environment * Chronic activation of social threat surveillance diminishes executive functioning, and heightened impulsivity influences the tendency of individuals to engage in health behaviors that require self-control * introduce emotional, physical, and functional health as additional mechanisms that may explain the association between loneliness and heightened risk of mortality   loneliness and emotional, physical and functional health   * Beyond cross-sectional associations between loneliness and depressive symptoms, loneliness leads to increases in depressive symptoms in longitudinal U.S. studies (Cacioppo et al., 2010; Hagerty & Williams, 1999; Wei, Russell, & Zakalik, 2005) * Loneliness is associated with poor physical health (Segrin & Domschke, 2011; Stephens, Alpass, Towers, & Stevenson, 2011). * loneliness and increases in loneliness over time predict decrements in self-rated health (Nummela, Seppänen, & Uutela, 2011) * Physical activity is important in maintaining higher levels of physical functioning (Keysor, 2003; Lee & Park, 2006; Netuveli, Wiggins, Montgomery, Hildon, & Blane, 2008), and because lonely individuals are less likely to engage in physical activity than their non-lonely counterparts (Hawkley et al., 2009), they are more likely to experience the onset or worsening of limitations * Our analyses allow reciprocal relationships between loneliness and each health outcome, thus providing more rigorous assessments than previous studies of the causal directions between these variables   Method.   * Data mainly come from the 2002, 2004, 2006 waves of the Health and Retirement Study (HRS) * Loneliness measured as: HRS asked how often the respondent feels (i) lack of companionship, (ii) left out, and (iii) isolated from others. * Mortality was determined through matching to the National Death Index or from contacts with household members through 2008 * Health outcomes. Depressive symptoms, self-rated health, and functional limitations were measured in 2002, 2004, and 2006 * Depression is conceptually related to but distinct from loneliness (Cacioppo et al., 2010) 🡪 **deleted items in the CES-D scale that overlapped with the measurement of loneliness** (“I felt lonely”, “sleep was restless”…) * Our measures of social relationships include marital status, presence of relatives living nearby, and presence of friends living nearby * Measures of health behaviors include sleep quality, physical exercise, current and past smoking * Sociodemographic include age, gender, race/ethnicity, education, household income and household assets   Estimation.   * The parametric models produced more efficient estimates than semiparametric (Cox) hazard models * and the Weibull distribution was the most efficient and parsimonious functional form for our sample data based on the Akaike Information Criterion * The survival analysis indicates whether loneliness affects mortality risk and the degree to which this effect is reduced when we hold constant measures of health status, possible mechanisms through which loneliness affects mortality * **However, because loneliness and health status were measured at the same time, the causal directions between them cannot be established**. For this reason we turned next to **cross-lagged panel models** and estimated **autoregressive** and cross-lagged paths * All models were estimated using Full Information Maximum Likelihood estimation with robust standard errors * FIML produces consistent and efficient estimates when the data are “missing at random” (MAR) and produces less biased estimates than other methods when the data deviate from MAR * We estimated separate cross-lagged path models for loneliness and each health outcome. * Our theoretical models assume that prospective relationships between variables are stable over time. These assumptions were modeled by applying equality constraints to the autoregressive and cross-lagged paths, thereby imposing “stationarity” on the relationships among variables in the model   Results.   * Mortality analysis showed that health outcomes assessed at the same time as loneliness helped explain the effect of loneliness on mortality, but did not permit evaluation of the causal direction between loneliness and health * Using cross-lagged models, we found that loneliness predicted increases in depressive symptoms, modest decreases in self-rated health and increases in functional limitations over two years even when the reciprocal effects of these health measures on loneliness were taken into account * Possessing a richness of social attachments and friends protects against mortality (House et al., 1988), and generally signifies lower levels of loneliness but we found that these objective characteristics of respondents’ social lives did not explain much of the effect of loneliness on mortality risk * The effects of loneliness on self-control suggest that health behaviors may differ as a function of loneliness and help explain mortality differences. This reasoning did not find support, however. * The fact that **loneliness continues to predict health outcomes when health behaviors are held constant suggests that loneliness alters physiology** at a more fundamental level | * Introductory literature review of the effect of loneliness is very good: both biological and behavioral references. Use them.   Note on the measurement of loneliness:  *This study used a 3-item composite index of loneliness which has been shown to have good validity and reliability (Hughes et al., 2004). This measure is an important improvement over previous studies on the lonelinessemortality relationship that measured loneliness with a single item asking respondents whether and/or how often they felt lonely. Specifically, our 3-item measure avoids use of the term “lonely” or “loneliness” and thus avoids much of the stigma associated with and consequent underestimation of loneliness. Nevertheless, the fact that mean loneliness levels were higher in 2006 than in 2002 and 2004, and that this difference corresponded to a change from an interview-based to a selfadministered questionnaire leaves open the possibility that stigma may have resulted in an underestimation of loneliness in the interview-based data* |
| 3 | Murayama et al (2013*), Do bonding and bridging social capital affect self-rated health, depressive mood and cognitive decline in older Japanese? A prospective cohort study* | * How social capital affects health * Older Japanese * Logistic regression | * Social capital distinguishes between * *Bonding SC* 🡪 people with similar characteristics share stronger bond. Reinforces exclusive identities and homogeneous groups. * *Bridging SC* 🡪 networks that bridge different social and ethnic groups that may share dissimilar identities. * Limitations of previous literature: * Do bonding and bridging social capital affect self-rated health, depressive mood and cognitive decline in older Japanese? A prospective cohort study * Second, the health outcomes included by previous studies were limited (self-reported) * most studies considering bonding and bridging social capital and health were conducted in Western countries   outcomes:   * Self rated health * Depressive mood * Cognitive decline   Measurement:   * Measuring bonding and bridging social capital 🡪 we focused on the (dis) similarity of relationships with regard to age, gender, and socioeconomic status (SES) * Perceived network homogeneity 🡪 “Do you agree that you have some networks with people who have similar social characteristics to yourself in your daily life?” * Bridging social capital 🡪 “Do you agree that you have some networks with people who have dissimilar social characteristics to yourself in your daily life?” * homogeneous and heterogeneous networks were not opposite concepts, some people would have homogeneous and heterogeneous networks, while some would have neither of these networks * Self-rated health, depressive mood, and cognitive decline were measured in baseline and follow-up surveys * Baseline data on age, gender, marital status, SES, lifestyle factors, comorbidity, and functional capacity were used as covariates   Method:   * intercorrelation between bonding and bridging social capital was assessed by Cramér’s V. * Logistic regression analyses were then used to examine the associations of bonding and bridging social capital with health outcomes   Results:   * perceived neighborhood homogeneity, measured as an aspect of bonding social capital, was negatively associated with poor self-rated health and depressive mood * shared personal characteristics elicit perceptions of trust and social resemblance * cohesive neighborhoods are more likely to form social organizations * Perceived homogeneous networks were not associated with health outcomes in our study * We found that people with stronger perceived heterogeneous networks were unlikely to be depressed * strong perceived heterogeneous network was possibly associated with less cognitive decline compared with aweak heterogeneous network | * study touches on social networks and social capital * only tangentially related to mental health   GOOD FOR LITERATURE REVIEW |
| 2 | Bell (2014), *Life-course and cohort trajectories of mental health in the UK, 1991e2008 e A multilevel ageeperiodecohort analysis*  [ X ] used in CH1 | * Mental health varies, between social groups, as individuals age, and over time * Method: hierarchical APC model * Is there a U-shape in life course trajectory of MH? yes | * Studies the life trajectory of mental health * Age-Period-Cohort identification problem: impossible to predict MH without making assumptions on one of the three * Hierarchical APC model treats periods and cohorts as contexts in which individuals reside   Mental health literature   * Definition. Mental health can be defined as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community” (WHO, 2014). It is more than simply an absence of symptoms and diagnoses * Socio economic status, employment, education, income, material living conditions all found to be predictors of MH * MH is dynamic * Lindstrom et al. (2014) find that risk factors accumulate through the life-course, with factors in childhood adding to contemporary factors to affect mental health later in life   APC identification problem.   * age effects result from individuals growing older, period effects result from factors specific to the year of measurement, and cohort effects result from similarities between individuals born contemporaneously * collinearity issue of APC: age + cohort = period   method: HAPC   * s designed for repeated-cross-sectional data, and treats periods and cohorts as contexts in which individuals reside * This model does not solve the problem (specifically, using age+age^2 is not good enough) * Assumption: no linear period trend in MH. There is no reason to expect a continuous trend across periods affecting all ages. * Thus, extend the model by including cohort polynomial: * Allows for different cohort groups to have different age effects   Definitive model (with panel data):    Modeling strategy:   * MCMC estimation * Models were run for 50,000 iterations, following a 2000 iteration burn-in, which was sufficient for all parameters to converge to a non-trending distribution, with an effective sample size of >400. Hierarchical centering was used to accelerate convergence   Results:   * Mental health worsens throughout the life course, and whilst this slows in mid-life, especially for men, there is little evidence of an improvement in mental health at any stage of life. * The improvement apparent in Fig. 3a is in fact a result of a cohort effect (Fig. 3c), whereby those in later cohorts, particularly females, report worse mental health. * Curious finding: recessions during formative years may be followed by improvement in individual MH in future years, otherwise not observed. * Variance in MH: * Nearly half of the variation (49% based on model-2) occurs within individuals once age, cohort and gender are controlled 🡪 individual MH varies considerably year-by-year * Between individual variance accounts for 41% 🡪 some individuals consistently have better mental health than others * A relatively large proportion of the variance (8%) occurs at the household-year level 🡪 cohabiting individuals have similar levels of mental health * In model-4 onwards, the linear component of the age effect was allowed to vary between individuals. * Individuals vary greatly, and increasingly vary as they age e whilst some remain relatively mentally healthy (or improve in health), others deteriorate (perhaps because of age-related problems like dementia), producing a ‘fanning out’ of mental distress levels over the life-course. * Other covariates results: female, lower social class, urban, non-white, poor, unmarried, smoker, low education 🡪 worse MH   Conclusion:   * The key contribution of this paper is to question the stylized fact of a consistent U-shaped trend in the life-course trajectory * MH problems peak in mid-life | * Good modeling * Cautious results |
| 4 | Alves et al (2014), *Loneliness in middle and old age: Demographics, perceived health, and social satisfaction as predictors* | * Can loneliness be predicted by socio-demographic, health and social characteristics other than age? * Non causal paper: just uses correlations and respective p values * Portugal | * subset of 10 industrial and academic project partners defined and segmented the target group * covered all Portuguese regions, and both rural and urban settings * survey was constructed with 8 main sections * (a) socio-demographic variables; (b) residence characteristics; (c) measures of health; (d) functionality (ADL and IADL2 ); (e) security issues; (f) social activities; (g) services; (h) attitudes toward the use of technological equipment * Loneliness was used as the outcome variable. How often do you feel lonely? The participants could reply 1 = never, 2 = seldom, 3 = sometimes, 4 = often, or 5 = always. * demographic variables (age, gender, marital status, living arrangements, region, residence setting, type of housing, level of education, professional status, and income), measures of health (perceived health, health conditions, sensorial and motor handicaps, and functional limitations), and measures of participation and satisfaction with social and recreational activities * Chi-square tests and Spearman correlation coefficients were performed to associate demographic measures, health measures, and social measures with self-reported feelings of loneliness   Results:   * the variables age, gender, marital status, living arrangements, region, residential settings, type of housing, professional status, and income were all significantly associated with loneliness * no differences in loneliness between age groups * subjective or perceived health, and health conditions are also associated with loneliness * Satisfaction with recreational and social activities, rather than frequency of participation in recreational and social activities, is associated with feelings of loneliness * Additionally, several obstacles to involvement in social and recreational activities were associated with loneliness: social isolation, lack of interest, transportation, mobility, health, and economic | * Survey answers to compute correlation coefficients |
| 3 | Eshan De Silva (2015), *Social capital and common mental disorder: a systematic review* | * Review of quantitative studies that examine the relation between social capital and common mental disorders * Social capital can prevent common mental disorders (CMD) * 39 studies were included in the review: 31 cros-ssectional and 8 cohort studies | * Social capital 🡪 The resources—for example, trust, norms, and the exercise of sanctions—available to members of social groups…social capital is conceptualized as a group attribute” and (2) “The resources—for example, social support, information channels, social credentials—that are embedded within an individuals’ social networks…social capital is conceptualized as an individual attribute as well as a property of the collective.” * Individual social capital (ISC) is measured by asking an individual series of questions about their participation in community groups and activities * Ecological social capital (ESC) is most commonly measured by asking a representative sample of the community the ISC questions and then aggregating these to the community level to produce average levels   Review characteristics:   * Select quantitative studies on social cohesion at the individual level * CMD 🡪 depression, anxiety, PTSD, etc. * Only studies which used validated scales to measure social cohesion were included. * No studies on psychosis, drug, alcohol and suicide. * No children studies. * Data manually extracted and summarized in tables. * The studies were too heterogeneous to enable a meta-analysis. Instead, analyze a subgroup. * The results were divided into whether higher social capital was significantly (p<0.05) associated with lower CMD (a negative association labelled−), whether there was no association (labelled/), or whether higher social capital was significantly associated with higher CMD (a positive association labelled+), and presented separately for cross-sectional and cohort studies. * 39 studies were included in the review: 31 crosssectional and 8 cohort studies * ICSC = individual level cognitive social capital * The effect estimates were divided into ICSC, individual level structural (ISSC), ecological level cognitive (ECSC) and ecological level structural (ESSC) social capital.   Results:   * There is strong evidence that high ICSC is associated with reduced risk of CMD * The results for ISSC were more varied. The six effect estimates from four cohort studies were inconclusive, with a roughly equal distribution of a positive association with CMD and no association. * A total of nine studies measured ESC, seven of which were cross-sectional and two cohorts. The cross-sectional studies provided strong evidence that higher ECSC is associated with lower risk of CMD. * For ESSC, a similar pattern as for ISSC was observed, majority of the sample size showing no association.   Discussion.   * This review provides strong evidence that ICSC is associated with CMD in cross-sectional studies, backed up by clear evidence from cohort studies that this relationship is not due to reverse causality and high cognitive social capital is protective against developing CMD * The picture for ISSC is more mixed, with overall no association at either the individual or ecological level. * Most studies in this review focused on ISC | OK FOR LITERATURE REVIEW   * Nothing special, was not convinced by their conclusions * Especially the claim of no reverse causality between social capital and CMD * Only soc cap 🡪 CMD * And not CMD 🡪 soc cap |
| 1 | Banerjee et al (2017), *Effects Of Psychiatric Disorders On Labor Market Outcomes: A Latent Variable Approach Using Multiple Clinical Indicators* | * estimate the effect of psychiatric disorders on labor market outcomes * structural equation model with a latent index for mental illness * address the potential endogeneity of mental illness using an approach proposed by Lewbel (2012) that relies on heteroscedastic covariance restrictions rather than questionable exclusion restrictions for identification * model: **MULTIPLE INDICATOR AND MULTIPLE CAUSE MODEL** (Joreskog and Goldberger, 1975) * endogeneity of MH addressed with covariance instruments (Lewbel, 2012) | * Mental disorders are associated with unemployment, lower earnings, work absences, reduced labor supply, and lower on-the-job productivity (Ettner et al., 1997; Chatterji et al., (2007, 2011); Marcotte et al., 2000; Marcotte and Wilcox-Gok, 2003; Ojeda et al., 2010; Hamilton et al., 1997; Schmitz, 2011; Banerjee et al., 2014) * Endogeneity of mental illness wrt labor market outcomes: * Simultaneity 🡪 outcomes are determined with MH * Measurement difficulty 🡪 personality and family background are difficult to measure and correlated with mental illness and labor market outcomes * Lots of literature addressing causality of MH and labor market outcomes, much less literature focused on the measurement issues of MH * Using (0=not mentally ill, 1=mentally ill) dichotomous indicators is easy to interpret and useful to compute prevalence * Shortcoming is that is assumes no heterogeneity in the 1 and 0 groups * Their MH indicator is comprised of the varied symptoms and determinants of psychiatric disorders. Thus, it incorporates the high levels of co-morbidity between different psychiatric conditions.   Method:   * Multiple indicator and multiple cause model * Endogeneity of MH indicator addresses with covariance instruments (Lewbel 2012) 🡪 identification based on higher moments is ok if there are measurement error problems, or error correlations are due to an unobserved common factor * Most useful when other instruments are weak or unavailable   PSYCHIATRIC DISABILITY AND LABOR MARKET OUTCOMES   * cognitive and non-cognitive skills are important for labor mkt (Cunha & Heckman, 2007; Heckman, 2007; Heckman, Stixrud & Urzua, 2006) * mental disorders can be viewed as a component of **non-cognitive skills**. * MH is also **health capital**. * symptoms of mental illness may impair an individual’s ability to obtain and maintain employment/earnings * productivity, mood, energy level, memory, concentration, decisiveness, motivation, and social relations affected * Conceptually, these mechanisms are similar to the pathways through which other non-cognitive skills such as motivation and **self-efficacy** are thought to affect labor market outcomes * Other mechanisms specific to MH issues in the workplace: stigma, employer not willing to accommodate, workplace discrimination.   Literature review:   * Papers using binary MH measure * Ettner et al. (1997) 🡪 instrumental variable (IV) approach, with the number of psychiatric disorders of the respondent’s parents and number of psychiatric disorders experienced by the respondent before age 18 as identifying instruments * Mental disorders reduce employment by 11% * Reduction in hours worked for men and in income * Chatterji et al. (2007) 🡪 IV **with n of psych disorders before 18, religious attendance and seeking religious/spiritual means to handle problems as instruments** * Latinos negatively affect employment and absenteeism, no effect for Asians * Ojeda et al. (2010) 🡪 effect of nativity and MH on employment. Three different sets of instruments. * Illness lowers employment for US born men, no effect on immigrants. * Chatterji et al. (2011) 🡪 Altonji et al (2005) identification methods, where the selection along unmeasured factors is set equal to selection along measured factors. * Reduction in labor force participation 9-19%. Reduction in likelihood of being employed. * Papers based on symptoms scales. * Lu et al. (2009) 🡪 MH index generated from 8 questions in a survey SF36. Problematic issue of this approach is that *MH index is not standardized*, so it’s hard to interpret the unstandardized treatment effect * Frijters et al. (2010) 🡪 also use SF36 to create index. Linear probability and probit model indicate increase in likelihood of labor force participation when MH improves by 1std dev. When endogeneity is accounted for (**instrument: use recent friends death**) much larger effect from improved MH. * Limitations of the approach: * Difficult to say which symptom is affecting labor market outcome * All symptoms weigh equally   EMPIRICAL MODEL    * k(K) is the latent index of MH * x are control variables * y are psychiatric symptoms * delta, gamma are scalars * treatment effect captured by beta.   Reduced form equations (**multiple indicator multiple cause model**):  Initial assumptions:   1. index of latent mental health is exogenous   Then modify the assumptions to deal with endogeneity and allow , and use IV to for the endogenous .   * Different sets of instruments: external instrument, covariance instruments, both. * External instruments: * n of psychiatric disorders before 18 for the endogenous latent MH variable (very problematic instrument conceptually and empirically). * Or use the parent experience with period of sadness of at least 2 weeks, or constant anxiety/nervousness for 1 month during most of childhood. * Covariance instruments: * Lewbel 2012 shows beta can be estimated consistently using as instruments. * Assumes and . * Z is a set of covariates which can be the entire vector of exogenous (x,w), and is the mean of z * is the residual of (2) computed from the reduced form model. * applicability of the Lewbel (2012) approach hinges on the assumption of heteroskedasticity of the error term .   Results:   * we find significant dampening effect of mental illness on employment regardless of the model specification * The estimated effect of mental illness is much larger after accounting for potential confounders because of simultaneity in the relationship between mental illness and employment * each of our instrumental variables are statistically significant and are fairly good predictors of mental illness * Examining the indicators (symptoms), which are the strongest indicators of mental health, we find that the length of a depressive episode, severe emotional distress, indecisiveness, and insomnia/hypersomnia are the most crucial in the context of employment for both men and women * Using the covariance instruments, we find mental illness to cause an increase in work absenteeism by more than 2 days in the past month for employed individuals.   Validity of instruments:   * Hausman tests are encouraging   COUNTERFACTUAL SIMULATIONS   * we simulate what would happen if individuals meeting diagnostic criteria for mental illness (D = 1) had the same symptom profiles as individuals not meeting diagnostic criteria for mental illness (D = 0) * we apply the ‘Rank and Replace’ method used previously in research on health care disparities (McGuire et al., 2006; Cook et al., (2009, 2010)) * The procedure is outlined as follows: (i) Rank the D = 1 and D = 0 group individuals separately by their mental illness score17 and obtain the percentile scores of the ranked individuals in each group; (ii) Rank the combined sample of D = 1 and D = 0 individuals in increasing order of their percentile scores previously computed; (iii) Replace the symptoms of D = 1 individual with symptoms of higher ranked (healthier) D = 0 individual; and (iv) Using coefficients from previously estimated model (with two covariance instruments and one external instrument) obtain predicted value of labor market outcome with simulated mental health profile of D = 1 individuals and original mental health profile of D = 0 individuals * Results: * labor market benefits from improved mental health of the diagnosed individuals 🡪 almost 18 percentage point increase in the likelihood of employment and labor force participation for men; and slightly lower 11 percentage point increases, respectively, for women * We find substantial adverse impact of poor mental health on all the labor market outcomes * we calculate the societal impact of amelioration of mental health of the diagnosed group of individuals. * We compute the gains in employment by using the number of individuals, 24- to 64-year-old, that are in the labor force18 (BLS, 2002a), the prevalence rate of any mental disorder,19 and the estimated increase in the likelihood of employment. * we also calculate the workplace cost of absenteeism * First, we compute the monetary value of the lost work days in a year per person * We used the estimated value of the reduction in missed days due to improved mental health, obtained earlier, and the median weekly wages * We find that the workplace cost of absenteeism is $21.6 billion in 2002 dollars | * Great for discussion of how using binary MH indicator is bad for capturing heterogeneity * Sub-clinical symptoms may still impair the individual * Great for framing the issue of MH.   GREAT FOR LITERATURE REVIEW. |
| 3 | Santini et al (2020), *Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): a longitudinal mediation analysis* | * Social disconnectedness, perceived isolation and symptoms of affective disorders * Novelty: comprehensive and validated scales for social relationships. | * Older people focused study. There will be more and more older people. * Social disconnectedness can be characterised as a scarcity of contact with others * Perceived isolation, by contrast, reflects the subjective experience of a shortfall in one’s network functioning and social resources * Both social disconnectedness and perceived isolation can increase the risk of mental health problems such as depression and anxiety * Heightened reaction to stress exposure * Reduced coping abilities   Method:   * Longitudinal mediation analysis * Depression symptomatology was assessed using the Center for Epidemiological Studies-Depression Minus Loneliness (CES-D-ML) scale * The seven-item anxiety subscale of the Hospital Anxiety and Depression Scale (HADS-A) was used to assess feelings of anxiety * The social disconnectedness scale9 incorporates social network size, social network range, frequency of interaction with network members, proportion of network members in the home, number of friends, attendance at group meetings, socialising with friends and family, and volunteering * The perceived isolation scale9 comprises emotional and instrumental support from family members, friends, and spouse or partner; lack of companionship; feeling left out; and feeling isolated * Little’s χ² test indicated that data were not missing completely at random (appendix pp 15–16). Frequencies showed that more missing data occurred at T2 and T3 than at baseline 🡪 potential bias source * Solve by using full information maximum likelihood 🡪 does not replace missing values directly, it just estimates population parameters without bias. * The analyses were run in both maximum likelihood as well as maximum likelihood with robust SEs (both with bootstrapping 5000 iterations).   Results:   * perceived isolation was positively associated with depression symptoms at T2 and T3 * However, we did not find evidence that social disconnectedness predicted higher frequencies of depression symptoms at subsequent timepoints * Social disconnectedness predicted higher amounts of perceived isolation and perceived isolation predicted higher amounts of depression symptoms * Evidence of indirect effect of isolation, which mediates the relation between social disconnectedness and depression symptoms. (disconnected 🡪 isolated 🡪 depressed) * **Evidence of reverse causality, with depression symptoms predicting higher amounts of social disconnectedness and perceived isolation in the future**. * We further identified a longitudinal mediation pattern going from depression symptoms to perceived isolation to social disconnectedness * perceived isolation predicted higher amounts of anxiety symptoms at subsequent timepoints but we did not find that social disconnectedness significantly predicted higher amounts of anxiety * one additional mediation pathway involving anxiety, which suggested that anxiety predicted social disconnectedness indirectly   reverse causality: social disconnectedness predicted higher amounts of perceived isolation, which in turn predicted higher amounts of depression and anxiety symptoms AND depression and anxiety symptoms predicted higher amounts of perceived isolation, which in turn predicted higher amounts of social disconnectedness.  Discussion:   * key role of perceived isolation * depression symptoms appear to be more intertwined with social disconnectedness and perceived isolation than anxiety symptoms * social disconnectedness as being the catalyst of a downward negative spiral, leading to perceived isolation and ultimately late-life affective disorders | * Non satisfactory solution to the reverse causality issue |
| 2 | Giuntella et al (2021), *Lifestyle and mental health disruptions during COVID-19* | * Track young adults before and during COVID19 🡪 LIFESTYLE DISRUPTION + EFFECTS ON MH * we document large disruptions to physical activity, sleep, time use, and mental health * Our analyses suggest that disruption to physical activity is a leading risk factor for depression during the pandemic. However, restoration of those habits through a short-term intervention does not meaningfully improve mental well-being * DID and fixed effects regressions * **Tree based classification methods to identify risk factors for depression** during covid19 | * Fitbit + survey data: * Large changes to activity and sleep * From 10k steps to 4.6k steps per day * Physical activity declined from 4.4h/d to 2.9h/d * Sleep increase by 25-30m/d * Screen time up to 5h/d (excluding classes and work) * Increases in depression * All changes statistically significant * Summer break 🡪 pick up of activity and less depression   RCT: random incentive to walk for 10K steps a day for 2 weeks.   * Successful intervention, increase of 2300steps per day * However no effect on MH * After the removal of incentives, the steps go back in line with other groups   Puzzle: Why are disruptions to physical activity and mental health strongly associated but restoration of physical activity through our intervention does not meaningfully improve mental health?   * Longer term intervention may be needed * physical activity may have important interactions with other lifestyle behaviors such as social interactions * correlation with other unobserved determinants of mental health * it could be the case that the relationship between physical activity and depression is driven more by mental health than it is by lifestyle habits 🡪 resilient enough to remain active in regular life means you are more likely to deal better with stressful situations   **MACHINE LEARNING: USING TREES TO PREDICT WHAT ARE THE RISK FACTORS FOR DEPRESSION**   * they use variables which measure lifestyle (physical activity, sleep, and time use), and baseline measures of mental health and demographics * XGBoost decision tree classification method 🡪 flexible and robust * 89% and 91% predictive accuracy (i.e. % of observations correctly predicted by the model)   Back to results:   * Baseline level of depression loses explanatory power for pandemic cohort. * Instead, anxiety and resilience measures at baseline are more explanatory of depression scores for pandemic cohort wrt previous cohort. * Difference in endline and baseline lifestyle behavior become more important for pandemic cohort. Meaning, lifestyle behaviors have more importance for mental health in critical times. * Importantly for the 2020 cohort, those participants who maintain daily active hours similar to baseline (i.e., differences near zero) demonstrate strikingly lower risk of endline depression * *Curious finding: For example, whereas walking the recommended 10,000 steps per day minimizes depression risk in prepandemic cohorts, these same baseline activity levels are associated with increased risk of depression during the pandemic.*   Intervention to stimulate 10k steps in treated group:   * Our short-term intervention successfully counteracts the plateauing of physical activity during the intervention period but has no meaningful effect on mental health. * Longer intervention may show effects on mh * Physical activity \* social interaction might be significant for MH, but they do not explore in this paper. | * Physical activity is a big disruptor of mental health * USES MACHINE LEARNING in a predictive task |
| 3 | Luo et al. (2012), *Loneliness, health, and mortality in old age: A national longitudinal study* | * cross-lagged panel models * to test the reciprocal prospective effects of loneliness and health outcomes (depressive symptoms, self-rated health, and functional limitations) and mortality | * examines the relationship between loneliness, health, and mortality among U.S. adults aged 50 and over, using data from the 2002 to 2008 waves of the Health and Retirement Study * Specifically, the effect of loneliness on mortality was not fully explained by social relationships or health behaviors but was partially mediated through health outcomes like functional status and self-rated health. However, depressive symptoms did not serve as a proximal mechanism through which loneliness affects later mortality * The study makes several assumptions in its model: * Prospective relationships between variables are stable over time. This is modeled by applying equality constraints to the autoregressive and cross-lagged paths, thereby imposing "stationarity" on the relationships among variables (Page 4). * The 2-year prospective effects of covariates on loneliness, depressive symptoms, self-rated health, and functional limitations do not differ from one time point to another. Equality constraints were applied to each of these covariates over the two 2-year intervals (Page 4). * The paper does not explicitly address the issue of endogeneity. While the study employs cross-lagged panel models to examine the reciprocal prospective effects of loneliness and health outcomes, it does not mention any specific techniques or methods used to tackle potential endogeneity problems.   Results:   * The study finds that feelings of loneliness were associated with increased mortality risk over a 6-year period. Specifically, the effect of loneliness on mortality was not fully explained by social relationships or health behaviors but was partially mediated through health outcomes like functional status and self-rated health. However, depressive symptoms did not serve as a proximal mechanism through which loneliness affects later mortality (Page 6). * In summary, while the paper does not directly focus on mental health, it does indicate that depressive symptoms, which are a component of mental health, were not found to be a significant mediator in the relationship between loneliness and mortality. |  |

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| 3 | Pieh, Christoph, et al. "*Mental health during COVID-19 lockdown in the United Kingdom*." Psychosomatic medicine 83.4 (2021): 328-337. | * cross-sectional online survey * 4 weeks after lockdown measures were implemented in the UK * Analyses of variances, Bonferroni-corrected post hoc tests, and t tests * CORRELATIONAL 🡪 snapshot of the UK in the middle of the pandemic | * Measures included mental health–related quality of life (World Health Organization Quality-of-Life Brief Version psychological domain), well-being (World Health Organization Well-Being Index), depression (Patient Health Questionnaire-9), anxiety (Generalized Anxiety Disorder-7), perceived stress (Perceived Stress Scale-10), and insomnia (Insomnia Severity Index) * Analyses of variances, Bonferroni-corrected post hoc tests, and t tests   Results:   * Approximately 52% of respondents screened positive for a common mental disorder, and 28% screened positive for clinical insomnia * Statistical analyses consistently indicated more severe mental health problems in adults younger than 35 years, women, people with no work, and people with low income (all p values < .05). Mental health indices also varied across UK regions. * The prevalence of depressive, anxiety, and insomnia symptoms is significantly higher in the UK *relative to prepandemic* epidemiological data * the present study indicates that mental health indicators worsened over time, as the pandemic progressed into the acute phase 4 weeks after lockdown * There was a clear age-related effect in all tested mental health scales. * **the younger adult groups showed the worst scores and the older people the best. This is, perhaps, surprising in the context of COVID-19 because older people are more seriously physically threatened by COVID-19** * older adults seem to be handling this exceptional situation better than younger ones * more uncertain working conditions and therefore more serious financial problems for younger people * freedom of movement is likely to have a greater immediate impact for the life-style of younger people * Women scored worse in every tested scale compared with men * Our results indicate that unemployed and low-income respondents had poorer mental health |  |
| 3 | Deng, Jiawen, et al. "*The prevalence of depression, anxiety, and sleep disturbances in COVID‐19 patients: a meta‐analysis*." *Annals of the New York Academy of Sciences* 1486.1 (2021): 90-111. | * a systematic review and randomeffects meta-analysis to assess the prevalence of depression, anxiety, and sleep disturbances in infected patients | * We found that the pooled prevalence of depression was 45% (95% CI: 37–54%, I 2 = 96%), the pooled prevalence of anxiety was 47% (95% CI: 37–57%,I 2 =97%), and the pooled prevalence of sleeping disturbances was 34% (95% CI: 19–50%,I 2 =98%) * not find any significant differences in the prevalence estimates between different genders * e depression and anxiety prevalence estimates varied based on different screening tools |  |
| 3 | Wang, Cuiyan, et al. "A longitudinal study on the mental health of general population during the COVID-19 epidemic in China." *Brain, behavior, and immunity* 87 (2020): 40-48. | * Longitudinal survey for ptsd, anxiety and depression symptoms in China * First survey: on impact * Second survey: 4 weeks after | * This study found that there was a statistically significant longitudinal reduction in mean IES-R scores (from 32.98 to 30.76, p < 0.01) after 4 weeks. Nevertheless, the mean IES-R score of the first- and second-survey respondents were above the cut-off scores (> 24) for PTSD symptoms, suggesting that the reduction in scores was not clinically significant * Symptoms decreased, but still clinically significant |  |
|  | Lakhan, Ram, Amit Agrawal, and Manoj Sharma. "Prevalence of depression, anxiety, and stress during COVID-19 pandemic." *Journal of neurosciences in rural practice* 11.04 (2020): 519-525. | * Review of other studies to find if there an increase in depression, anxiety, stress | * Prevalence of all forms of depression was 20%, anxiety 35%, and stress 53% in the combined study population of 113,285 individuals * *The prevalence rate of all forms of depression, anxiety, stress, sleep problems, and psychological distress in general population was found to be higher during COVID-19 pandemic* |  |
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