PSYCHOLOGY MISCELLANY

No.93 - March 2017

Kevin Brewer

ISSN: 1754-2200

Orsett Psychological Services
PO Box 179
Grays
Essex
RM16 3EW
UK

orsettpsychologicalservices@phonecoop.coop

This document is produced under two principles:

1. All work is sourced to the original authors. The images are all available in the public domain (most from http://commons.wikimedia.org/wiki/Main_Page). You are free to use this document, but, please, quote the source (Kevin Brewer 2017) and do not claim it as you own work.

This work is licensed under the Creative Commons Attribution (by) 3.0 License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-nd/3.0/ or send a letter to Creative Commons, 171 2nd Street, Suite 300, San Francisco, California, 94105, USA.

2. Details of the author are included so that the level of expertise of the writer can be assessed. This compares to documents which are not named and it is not possible to tell if the writer has any knowledge about their subject.

Kevin Brewer BSocSc, MSc

An independent academic psychologist, based in England, who has written extensively on different areas of psychology with an emphasis on the critical stance towards traditional ideas.

A complete listing of his writings at http://psychologywritings.synthasite.com/ and http://kmbpsychology.jottit.com.

CONTENTS

Page Number

1. THE CONTEXT AND EXPERIENCE OF AGEING IN INDIA 4

1.1. Introduction
1.2. Undervaluing older people
1.3. Poverty
1.4. Defining "old"
1.5. Quality of life
1.6. Social change and the wider picture
1.7. References

2. TIC DISORDERS, META-ANALYSIS AND OTHER RESEARCH METHODS IN CLINICAL PSYCHOLOGY 15

2.1. Meta-analysis
2.2. Tic disorders
2.3. Research methods issues and examples
2.3.1. Mediator analysis
2.3.2. Meta-analysis example
2.3.3. Covert observation
2.3.4. Miscellaneous research designs
2.4. Appendix 2A - Synthesis methods
2.5. References

1. THE CONTEXT AND EXPERIENCE OF AGEING IN INDIA

1.1. Introduction
1.2. Undervaluing older people
1.3. Poverty
1.4. Defining "old"
1.5. Quality of life
1.6. Social change and the wider picture
1.7. References

1.1. INTRODUCTION

The gain in life expectancy in the second half of the twentieth century is over twenty years in India, and this country has the second largest number of over 60 year-olds in the world (90 million in 2008). That is 7.5% of the total population, according to the 2001 Census (Rayan 2010).

Vera-Sanso (2015) argued that the Indian government "focuses on the current and future generations, focusing on their fertility, health, education and employment and excludes older people from critical national surveys, casting them beyond the purview of mainstream policy making. Treated as 'other' at international and national levels, policy in India is not designed around the concept of older people's rights, nor even of meeting need. Rather, policymaking is focused on promoting filial dependence and the limited use of parsimonious pension policies as electoral instruments" (p77) [1].

Practically, this means that the government does not even know how many older people qualify for a social pension, and relevant budgets are allocated and managed in "a random fashion". Furthermore, the pension value is allowed to "wither on the vine" until one of the political parties puts "a pension uplift at the centre of their manifesto" (Vera-Sanso 2015).

India is a federated state with "a complicated interweaving of national and state level policy-making

[1] It is thus assumed that what benefits younger people benefits the old because of filial support, and this explains the Indian Government's limiting of old-age social assistance to destitute individuals without surviving sons (Vera-Sanso 2007). In 1995 the National Old-Age Pension Scheme (NOAPS) was launched for individuals over 65 with no regular income or family support (Kaushal 2013).

The "social safety nets" (including civil service pension and provident funds) cover just under 10% of older persons at work in the "organised sector" (including government eployees and industrial workers). The vast majority of workers generally are causal and self-employed ("informal sector"/"unorganised sector") (Rayan 2010).

In 2007 the Indian Government widened the eligibility for "social pensions" (Pal and Palacios 2008).

and implementation" (Vera-Sanso 2015). The twenty-nine States and seven Union Territories also vary in their demography - eg: over 10% of the population over 60 years old in Punjab compared to high proportions of under fifteens in other States (Vera-Sanso 2015).

Traditionally, it has been assumed that older adults would be cared for by "village-based extended family support" [2]. Social pensions tend to be available for those in destitution (Vera-Sanso 2015). However, there are issues of arbitrariness about the system (Vera-Sanso 2015) - imperfect official data on individuals living below the poverty line, barriers to access (which favours individuals with "connections"), and the unpredictability of payment. Vera-Sanso (2015) pointed out: "Indexing the pension to inflation and universalising coverage, which will take the social pension out of the realm of political 'gift' and into that of citizen right, has yet to happen" (Vera-Sanso 2015 p80).

The term "compassionate ageism" has been used. It is where older people are seen as a "deserving group" rather than having the "rights to equal treatment and self-determination" (Sidorenko and Walker 2004) [3].

"The answer to the taboo question of what happens to older people unable to support themselves and unsupported or inadequately supported by State and family is: they die" (Vera-Sanso 2010 p224).

1.2. UNDERVALUING OLDER PEOPLE

Where "vital unmonetised services necessary to life and to the on-going reproduction of the economy and society are deemed by economists to fall outside the 'production boundary', [...] older people appear as

---

[2] In urban and rural areas, around half of families are nuclear (head of household and spouse and children) and one -fifth to one-quarter are joint/extended (head and spouse and married children and their family), according to data from 1998-9 (Niranjan et al 2005). Shah (1996) found that the joint household was declining among the urban, educated, professional class, but increasing in the rest of the population.

"Nuclearisation of households does not preclude the intergenerational transfer of resources (including labour) between households: it makes it exceptional, being resorted to when alternatives fail" (Vera-Sanso 2014).

[3] "In India the hegemonic discourse firmly places the care and support of 'the old' on the shoulders of ‘the family’. Legal and discursive strategies are employed to try to ensure that this happens: ranging from incarcerating people who fail to support parents unable to support themselves to continuously harping on the responsibilities of children in ‘traditional culture’ and redefining old-age poverty as ‘neglect’ and the ‘loss of tradition’ caused by ‘changing values’ due to modernisation, westernisation, and urbanisation – what Lawrence Cohen (1998) calls ‘the narrative of the Fall’" (Vera-Sanso 2014). These discourses allow the government (local and national) to "sidestep responsibility for countering old-age poverty" (Vera-Sanso 2014).

costs, not as helping to grow the economy by enabling women to enter the workforce and enabling children, especially girl children, to go to school" (Vera-Sanso 2015 p85). This fits with the view of the dependency ratio as everyone under fifteen and over 59 (or 64) years as not working, and everyone inbetween as working. "Not only does the dependency ratio poorly inform policy-making, it provides a pseudo-scientific 'fact' that is used to bolster public and policy discourse, erroneously positioning all older people and the whole of later life as a cost, burden and challenge to younger generations, thereby obscuring the mutual interdependence on which individuals, economies and societies depend" (Vera-Sanso 2015 p85).

Challenging the traditional assumption that older women are supported by their spouses or adult children, Vera-Sanso (2012) argued that it was the other way around in low-income communities in urban South India. The reason is that women "face a long old-age reliant on themselves and younger relatives (who are struggling to support their own marital families), and inadequate state provision to meet subsistence and care needs" (p325).

Based on indepth interviews with households in the slums of Chennai, Vera-sanso (2012) described how married women took up paid work as a supplement to the husband's income, which can decline in their late 40s with "age discrimination in the labour market, injury and ill-health". Women married before age 20, but did not start work until the late 20s or beyond. Data on workforce participation showed married women as most active between the ages of 25 and 50, widows between 40 and 60, and single women at 15-25 years old (Vera-Sanso 2012).

Vera-Sanso (2012) summed up the situation: "Women, on the other hand, may work to help their birth family when young but withdraw from the workforce before marriage, only taking up work after marriage because of a shortage of male incomes, either through men's declining access to work, reduced contributions to the household, widowhood or filial support which is insufficient, if any. Hence men's economic contribution to the marital family is high at the beginning of marriage and then declines over the life course, whereas women's starts with no paid work and no 'helper' role, and then, if they start working, rises over the life course, generally continuing into late old age" (p331).

But because being a "provider" is "closely aligned with masculinity", working married women are more likely to be classed as "helpers" rather than workers. "The fact that 'worker' is a socially situated identity, causing older men to be over-defined and older women to be under-defined as workers, both by themselves and by their families, means that the reported ratios of men and women

working in later life are extremely likely to overestimate gendered differentials in old-age work participation by underestimating the rates of decline in men's work and the rates of increase in women's work over the life course" (Vera-Sanso 2012 p331) [4].

1.3. POVERTY

The experience of poverty generally is seen in the inequalities found in food consumption. For example, in rural India in 2009-10, the bottom 20% of monthly per capita expenditure ate 33 kg of food compared to 50 kg for the top quintile (Gupta and Mishra 2014).

In a study of four villages in South India, half of over 60s were found to have a body mass index of 18 (underweight) (Purty et al 2006), while another study in the same area reported that nearly two-thirds of the same age group were malnourished or at risk of malnutrition (Vedantam et al 2010).

Individuals over sixty can earn 50% less than younger workers (Harriss-White et al 2013). Vera-Sanso's (2014) research in the slums of Chennai found that older adults' work was more insecure with lower returns (eg: cleaners, night watchmen, bicycle repairs, porters). Vera-Sanso (2014) stated: "Public and policy discourse fails to recognise the importance of older people's contribution to the economy. Older people perform essential roles in all sectors of the economy, providing cheap inputs and services to a wide range of economic sectors that help to keep costs down in Chennai, thereby increasing the city's competitiveness in national and global markets".

Studies have found associations between poverty, illiteracy, caste-based discrimination, and disability and illness in old age (Vera-Sanso 2006).

Poverty reduces longevity. Using the proxy measure of longevity as the probability that an adult's parents are alive, Banerjee and Duflo (2007) found that mothers of the poor were less likely than the non-poor to be alive. But this study could not establish causality (Kaushal 2013) [5].

Kaushal (2013) analysed data from the National Sample Surveys (NSS) in 2004-5 and 2007-8, which each covered 125 000 households, and found that the NOAPS

[4] Around 40% of over 60s are still working, of which one-third are female (Dhillon and Ladusingh 2013).

[5] Living longer translates into working longer into old age for women, but not men, and for individuals in urban but not rural areas (Dhillon and Landusingh 2013).

reduced elderly male employment slightly, but increased household expenditures (ie: lower poverty), particularly on education and medical care. There was some evidence that the elderly poor had increased longevity, but illiterate individuals were more likely to be left out of pension coverage.

Using NSS data from 1995-6 and 2004-5, Pal and Palacios (2008) concluded that "there is no evidence that households with elderly members are more likely to be poor than non-elderly households" (p2), but there was a "survivorship bias" (ie: less survival of poorer individuals) (eg: nearly twice as many over 55s alive in highest income quintile than lowest) [6].

1.4. DEFINING "OLD"

Many official policies approach "the old" "as a category of people that not only share common problems and experiences but that these problems and experiences differ significantly from those of young people" (Vera-Sanso 2006 p457). But "a 'thing' called old age; that is readily identifiable and its impacts are measurable" is a fiction (Vera-Sanso 2006). Old age is constructed and contested, and experienced differently based on social class, for instance.

Individuals do not arrive at a certain age, say sixty years old, in the same state, the lifecourse has had its effect. For example, the type of work performed can "create functionally old people well below the age of 60" (Vera-Sanso 2006). This can be seen in brickmakers and agricultural workers in South India [7] who are "functionally old and forced out of work from the ages of 40-50 years" (Vera-Sanso 2006).

The social context also plays a role here. Agricultural labourers are deemed old based on their ability to perform heavy manual labour [8], while "white-collar" workers can continue in their jobs until cognitive decline interferes. However, individuals may not see themselves as old. Erb and Harriss-White (2002) found that more wealthier individuals reported disability related to age than lower class workers. Though the

---

[6] Pal and Palacio (2008) summed up the issue with universal pensions: "Simply put, the rich would receive such a transfer for much longer than the poor" (p17) (ie: rich individuals live longer to enjoy the benefits).

[7] Vera-Sanso (2006) reported her fieldwork of living with a variety of households in Chennai, and in two villages and a town in Tamil Nadu State for periods between 1989 and 2000.

[8] A rural elderly agricultural worker in Tamil Nadu summed up the reality: "For us there is only one retirement, not from work, but from the world" (quoted in Rayan 2010). Nearly 3% of 70-74 year-olds and 10% of those in their 80s and beyond are still working (Vera-Sanso 2014).

latter group have more objective disability, they must continue to work and so "cannot 'afford' to see themselves as, or be seen as being, disabled" (Erb and Harriss-White 2002 quoted in Vera-Sanso 2006).

Vera-Sanso (2006) went further: "To understand the processes through which people become defined as old we need to ask what is at stake in the way individuals or groups of people are defined. It is access to and control of resources that is at stake; being defined as old implies not only particular capacities, needs and rights but also confers duties of care and support on sons..." (p460).

In South India, old age is "defined" locally in terms of "functionally ageing" as described above, and "generational ageing". The latter relates to generations reaching specific life stages (eg: marriage, parenthood). For example, in Tamil Nadu, men and women are deemed to have entered old age when all their children have been married (Vera-Sanso 2006) [9]. But "socially old" can conflict with "functionally old" (eg: a father with no unmarried children who continues to work in paid employment with no fixed retirement age). There are other conflicts as well.

Sons are expected to support aged parents. But when and whether the son can do this is an issue. Or the desire of the son to take over the family business when the father does not feel ready to retire. Also older parents are expected to live on less and distribute the "surplus" income to family members (Vera-Sanso 2006) [10].

These examples show the importance of defining old age in a society, and the roles and relations that go with it. "A person may try to position himself or herself as old in one context and resist it in another. For instance, a person may strongly resist being defined as functionally old by an employer who is attempting to use the functionally old card to reduce the person's pay. Yet, in order not to be identified by their families as a

---

[9] The phrase "vaalkai mundinchi pochu" is used ("life, being fulfilled/been completed, is gone") (Vera-Sanso 2007). What is meant by the phrase is that "older people have enjoyed the 'pleasures' of life (pleasures that are considered to be the prerogative of younger people) and that period being over, older people are expected to turn to a simpler way of life without the 'luxuries' of youth" (Vera-Sanso 2007 p232). What is classed as a luxury varies between classes (eg: toothbrush and toothpaste) (Vera-Sanso 2007).

Djurfeldt and Lindberg (1975) summed up their observation of a village in Tamil Nadu State: "'We remember that old age is the most common cause of death among adults. We now understand part of the reality behind that classification.: Sometimes death in old age is a euphemism for death due to starvation" (quoted in Dharmalingam 1994).

[10] Support from sons depends on the defining of "old", and the assessment of this varies. For example, among "impoverished families sons may only regard their parents as 'too old to work' when they are consistently refused work during periods of high labour demand" (Vera-Sanso 2007 p233). So, sons can take the position that any parental income, even from begging, obviates their duty to support the parents (Vera-Sanso 2007).

financial burden, that same person may underscore their old age in generational terms by claiming they have no need of luxuries, large quantities of food etc (Vera-Sanso 2006 p463).

Vera-Sanso (2006) described two dimensions by which South Indians made sense of "old": respect vs disrespect (eg: courteous vs insulting behaviour), and independence vs dependence (the esteem of independence vs the "humiliation" of dependence).

Referring to rural landless labourers, Vera-Sanso (2006) described them as caught in an "unjust triangle" "comprising on one side sons who are unable or unwilling to support them, on the second side younger labourers who try to exclude them and on the third farmers who cut their wages or hand out punitive conditions - including having to come back the next day to pick up their pay" (p467). While in middle-class families, older adults seek to contribute to the family (eg: business activities), and not to be a "burden" on the family (Vera-Sanso 2006).

Tension between young and old men exists in relation to daily work in the fields, for example. Quoting from her fieldnotes, Vera-Sanso (2007) described the situation:

> (The old men said that) people do not call us for work now because we are weak. The young men are called and we follow them to the field. There the young ones ask the farmer and contractor not to take us - they say we spoil their money and time. This is "maanam kedu" (shaming) for us. It is better to simply sit in the house. Why should we go to get work only to be insulted (kevalam) by others? (In response to a request for elaboration I was told) when the farmer pays mottam cooli the farmer says nothing (about the older men being in the group) and hands over the mottam to the contractor who divides it between everyone there to work. The young men complain to the contractor that their money is spoilt and that they have had to make up the work that we have not done. If the farmer is paying daily cooli (rather than mottam cooli) he scolds the young men for bringing us along with them. They say "why did you bring this kilavan (old man) along with you - why are you wasting my money and spoiling my work? From tomorrow onwards you're not to bring him". The farmer will also tell us to our faces not to come the next day (farmers usually want people to come for two to three days). To stop us coming with them the young ones walk very fast to the field (pp243-244) [11].

1.5. QUALITY OF LIFE

Quality of life can be defined as "a holistic approach that not only emphasises an individuals'

[11] "Mottam" contract = fixed payment for fixed task; "cooli" = pay for day's work" (Vera-Sanso 2007).

physical, psychological, and spiritual functioning but also their connections with their environments, and opportunities for maintaining and enhancing skills" (Mudey et al 2011 p89). It also covers functional ageing, economic independence/dependence, and social reaction to ageing (Mudey et al 2011).

In rural areas, older individuals work until their body stops them, and experience power and local prestige while working, while the urban elderly whose jobs have a set retirement age can suffer economic insecurity and loss of status. These are factors linked to quality of life (Mudey et al 2011).

Mudey et al (2011) explored quality of life among over 60s in rural and urban slum areas in Wardha district in Maharashtra. Eight hundred individuals (half from each area) completed items from the WHOQOL-BREF scale (WHO 1996). It covers four domains - physical health, psychological health, social relations, and environment.

The urban respondents reported significantly lower quality of life on the physical and psychological domains, while the rural respondents were significantly lower on the social relations and environment domains.

The authors suggested that "urban populations are aware of their disease condition and are more concerned for health problems while in the rural area they just ignore it considering being natural process" (Mudey et al 2011 p92). This explained the higher physical and psychological quality of life scores among the rural respondents. In terms of the higher social relations and environment domains for urban respondents, Mudey et al (2011) stated: "Urban elderly are actively involved in some groups that give them opportunity to socialise themselves. Physical safety and security, home environment, financial resources, health and availability and quality of social care are very high in urban areas. So they report high on environment" (p92).

There were other differences between the two populations. For example, physical and psychological quality of life declined with age in rural areas, but not in urban ones. This fits with Barua et al (2007) who found decreasing physical, psychological, and social quality of life with age in another Indian study.

Quality of life varied with marital status within the two populations - the psychological domain was higher among married than single or widowed individuals. Bhattathiri's (2008 quoted in Mudey et al 2011) study in Kerala found that overall quality of life was poor for widowed and single elderly.

In rural areas, literate individuals had better quality of life than illiterate individuals, Mudey et al (2011) found. This agreed with Bhatia et al's (2007) findings in a study in the Punjab.

Older women, particularly widows, are the majority of the "old-old" (eg: over 70% of women over 80 years old are widows) (Rayan 2010). Older women are more likely to rate their health as "poor" than man in the NSS.

1.6. SOCIAL CHANGE AND THE WIDER PICTURE

Based on her research in two neighbourhoods in rural Tamil Nadu in 2000, Vera-Sanso (2007) reported social changes that "not only suggest increasing consumption on the part of younger adults and children and decreasing support for older parents but that older parents are themselves funding the younger generations' rising consumption patterns" (p226).

In interviews in a village in Tamil Nadu State, Dharmalingam (1994) found that expectations of support from sons for parents was summed up in the phrase: "Times have changed; you cannot rely on them". Dharmalingam (1994) explained this comment thus: "When parents say they cannot rely on children any longer, it is for one of two reasons: the economic independence of the younger generation resulting from change in economic structure, or the poverty of the sons themselves" (p12).

The world in the 21st century is facing "global population ageing" (ie: "an increase in the relative size of the older population as a share of total population around the world"; Higo and Khan 2015). It is an achievement in the sense that individuals are living longer, mainly through medical, healthcare, and dietary advances. But there are also challenges and risks, and these will vary between developed and developing countries. Developing countries, in particular, have a "double challenge" of "securing resources for the well-being of their older population as those countries face the risks associated with the process of economic development and playing various roles in an increasingly globalised economy" (Higo and Khan 2015 pp151-152).

Higo and Khan (2015) concentrated on four "areas of socio-economic lives":

i) Burden of disease in epidemiological transition - eg: increase of non-communicable disease (eg: heart disease, cancer) while infectious diseases are declining, but HIV/AIDS is the exception. A double burden, then, for health systems of increasing non-communicable diseases and HIV/AIDS.

ii) Financial security in retirement - eg: the long-term financial viability of state pension systems and issues with privatised schemes, like dependence on

financial markets growing.

iii) Informal resources for elderly care (ie: family members) - eg: changes in family size and structure.

iv) Formal resources for elderly care (ie: healthcare workers) - eg: high demand for long-term care (LTC) workers. But if developing countries provide LTC workers for the developed world, who cares for the old of the developing world? "Yet, worldwide, the majority of older people will be in the developing part of the world" (Higo and Khan 2015) p159).

1.7. REFERENCES

Banerjee, A & Duflo, E (2007) Ageing and death under a dollar a day. In Wise, D.A (ed) Research Findings in the Economics of Ageing Chicago: University of Chicago Press

Barua, A et al (2007) A cross-sectional study on quality of life in geriatric population Indian Journal of Community Medicine 32, 2, 146-147

Bhatia, S.P.L et al (2007) A study of health problems and loneliness among the elderly in Chandigarh Indian Journal of Community Medicine 32, 4, 10-12

Cohen, L (1998) No Ageing in India: Alzheimer's, the Bad Family and Other Modern Things Berkeley: University of California Press

Dannefer, D (2003) Cumulative advantage/disadvantage and the life course: Cross-fertilising age and social science Journal of Gerontology Series B: Psychological Sciences and Social Sciences 58, 6, S327-S337

Dharmalingam, A (1994) Old age support: Expectations and experiences in a South Indian village Population Studies 48, 5-19

Dhillon, P & Ladusingh, L (2013) Working life gain from gain in old age life expectancy in India Demographic Research 28, 733-762

Djurfeldt, F & Lindberg, S (1975) Pills Against Poverty: A Study on the Introduction of Western Medicine in a Tamil Village London: Curzon Press

Erb, S & Harriss-White, B (2002) Outcaste from Social Welfare: Adult Disability, Incapacity and Development in Modern South India Bangalore: Books for Change

Gupta, A & Mishra, D (2014) Food consumption pattern in rural India: A regional perspective Journal of Economic and Social Development 9, 1, 1-16

Harriss-White, B et al (2013) Multiple shocks and slum household economies in South India Economy and Society 42, 3, 398-429

Higo, M & Khan, H.T.A (2015) Global population ageing: Unequal distribution of risks in later life between developed and developing countries Global Social Policy 15, 2, 146-166

Kaushal, N (2013) How Public Pension Affects Elderly Labour Supply and Well-Being: Evidence from India (NBER Working Paper 19088) Cambridge, MA: National Bureau of Economic Research

Mudey, A et al (2011) Assessment of quality of life among rural and urban elderly population of Wardha district, Maharashtra, India Studies on Ethno-Medicine 5, 2, 89-93

Niranjan, S et al (2005) A socio-demographic analysis of the size and

structure of the family in India Journal of Comparative Family Studies 36, 4, 623-651

Pal, S & Palacios, R (2008) Understanding Poverty Among the Elderly in India: Implications for Social Pension Policy (IZA Discussion Paper No 3431) Bonn: Institute for the Study of Labour (IZA)

Purty, A.J et al (2006) Morbidity pattern among the elderly population in the rural area of Tamil Nadu, India Turkish Journal of Medical Science 36, 45-50

Rayan, S.I (2010) Demographic Ageing and Employment in India Bangkok: International Labour Organisation

Shah, A (1996) Is the joint household disintegrating? Economic and Political Weekly March 2, 537-542

Sidorenko, A & Walker, A (2004) The Madrid International Plan of Action on Ageing: From conception to implementation Ageing and Society 24, 2, 147-165

Vedantam, A et al (2010) Malnutrition in free-living elderly in rural South India: Prevalence and risk factors Public Health Nutrition 13, 9, 1328-1332

Vera-Sanso, P (2006) Experiences in old age: A South Indian example of how functional age is socially structured Oxford Developmental Studies 34, 4, 457-472

Vera-Sanso, P (2007) Increasing consumption, decreasing support: A multi-generational study of family relations among South Indian Chakkliyars Contributions to Indian Sociology (n.s) 41, 2, 225-248

Vera-Sanso, P (2010) Gender and ageing in India: Conceptual and policy issues. In Chant, S (ed) Elgar International Handbook on Gender and Poverty Cheltenham: Elgar

Vera-Sanso, P (2012) Gender, poverty and old-age livelihoods in urban South India in an era of globalisation Oxford Developmental Studies 40, 3, 324-340

Vera-Sanso, P (2014) Reconceiving the impact of population change: Ageing in poverty in India. In Parry, J & Gooptu, N (eds) Persistence of Poverty in India New Delhi: Social Science Press

Vera-Sanso, P (2015) What is preventing India from developing an inclusive national framework for older people? Population Horizons 12, 2, 77-87

WHO (1996) WHOQOL-BREF, Introduction, Administration, Scoring and Generic Version of Assessment Field Trial Version Geneva: World Health Organisation

2. TIC DISORDERS, META-ANALYSIS AND OTHER RESEARCH METHODS IN CLINICAL PSYCHOLOGY

2.1. Meta-analysis
2.2. Tic disorders
2.3. Research methods issues and examples
2.3.1. Mediator analysis
2.3.2. Meta-analysis example
2.3.3. Covert observation
2.3.4. Miscellaneous research designs
2.4. Appendix 2A - Synthesis methods
2.5. References

2.1. META-ANALYSIS

Meta-analysis is a technique commonly used to statistical synthesise the findings of multiple studies of the same behaviour or treatment. However, meta-analyses of the same area can differ because of different inclusion criteria [12].

Simply, meta-analysis takes the data from different studies and re-analyses them to produce the effect size. The data from the different studies are treated as a raw dataset based on means and standard deviations. The difference between two means can be standardised by "Cohen's d", which expresses the size of the difference in terms of the size of the standard deviation (SD). Thus, a moderate effect size is 0.50 SD between the means of the treatment and control groups, say, a large effect size is 0.80, and a very large effect size greater than one (Howell 2002).

2.2. TIC DISORDERS

One example where two meta-analyses showed small differences in psychosocial treatments for tic disorders.

Tic disorders are characterised by sudden motor movements and/or vocalisations, which begin in childhood and persist into adulthood. Common tics include eye blinking, head jerk movements, mouth movements, and simple vocalisations. The prevalence in childhood is 3-8 per 1000 (McGuire et al 2014).

Simple tics (eg: eye-blinking) are rapid, while complex tics (eg: obscene gestures; copopraxia) are slower and involve sequences of simple tics (Franklin et al 2010) [13].

[12] Meta-analysis is one of a growing number of synthesis methods (appendix 2A).
[13] Many individuals report their tics as controllable (eg: 90%; Leckman et al 1993).

Four categories of tic disorder are recognised by DSM (Franklin et al 2010):

- Tourette syndrome - multiple motor tics and vocal tics over the last year;

- Chronic tic disorder - motor or vocal tics for the last year;

- Transient tic disorder - tics present for longer than one month but less than one year;

- Tic disorder not otherwise specified - tics present, but not meeting above criteria.

Tics are scored on psychometric measures, like the Yale Global Tic Symptom Severity Scale (YGTSS) (Leckman et al 1989). This covers number of tics, frequency, and intensity, with a total score of 0-100.

Psychosocial treatments are based around behavioural therapy, which includes awareness training to detect pre-tic urges or early movements, and then competing response training with behaviours physically incompatible with the tic (McGuire et al 2014). Behavioural interventions, specifically, concentrate on the external factors, like the social reaction to the tics, to alter tic frequency (Franklin et al 2010).

1. McGuire et al (2014)

- Eight randomised controlled trials of Habit Reversal Training (HRT) (table 2.1) [14] or Comprehensive Behavioural Intervention for Tics (CBIT);

- Individuals with Tourette syndrome and Chronic Tic Disorder;

- Published between 1990 and 2012;

- Total of 438 participants;

- A medium to large effect size (ie: improvement with

[14] This has multiple components including relaxation techniques, awareness training, and competing response training. Awareness training encourages the individual to anticipate the tics, while competing responses includes focus on one spot in the room as an alternative to the eye blinking tic, for example (Franklin et al 2010).

HRT was first described by Azrin and Nunn (1973) in a study with twelve individuals, who showed an over 90% reduction in symptom frequency immediately and three months later.

these treatments) [15];

- More improvements for older participants, individuals without a co-morbidity of Attention Deficit Hyperactivity Disorder (ADHD), and those receiving more therapy sessions.

COMPONENT	APPLIED TO "BA"
Awareness training	Keep diary and monitor tics for 30-minute periods
Competing response training	Practice competing response for arm jerking in 30-minute blocks
Anxiety management techniques	Controlled breathing and muscle relaxation
Operant techniques (ie: rewarding tic-free periods and punishing periods with tics)	Stickers earned over a week to be traded for agreed reward
Motivational techniques	Mother involved in programme (social support); Steps to take

Table 2.1 - Components of HRT as applied to an eleven year-old boy ("BA") with various motor tics (Piacentini and Chang 2005).

2. Theule et al (2016)

- Seventeen studies of HRT, CBIT, Cognitive Behavioural Therapy (CBT) [16], Parent Management Training (PMT), Relaxation Therapy [17], and Exposure and Response Prevention (ERP) [18];

- Individuals with tic disorders;

- Published between 1990 and 2013;

- Total of 616 participants;

---

[15] In comparison, for example, Weisman et al (2012) reported a moderate effect size for tic severity reduction with psychotropic medication in a meta-analysis of five randomised controlled trials.

[16] This combines other strategies, but also includes a cognitive component (eg: dealing with irrational beliefs). For example, ain individual with a coughing tic believed his mouth had too much saliva (Franklin et al 2010).

[17] Aims to reduce muscle tension, which is a potential trigger of tics, and anxiety about the tics (Franklin et al 2010).

[18] The gradual exposure to the premonitory sensations of the tics without the full tic is the aim, based on the assumption that habituation to the premonitory urge will reduce the need for the tic. In other words, the suppression of the tic for longer and longer periods of time (Franklin et al 2010).

Premonitory urges are "most commonly described as a sense of building tension or a strong urge and are relieved by the movement of the affected body region (ie: performing the tic)" (Piacentini and Chang 2005 p804).

- A very large effect size.
- More improvements when no co-morbidity with ADHD.
- Contingency management improved the success of treatment whereas psychosocial education reduced it [19].

Key differences between two meta-analyses:

1. Number and type of participants

2. Years of publications included

3. Treatments included

4. Studies included - McGuire et al (2014) included interventions targeting tic severity as primary outcome measure, while Theule et al (2016) included studies with wider outcome measures (eg: quality of life).

McGuire and Piacentini (2016) noted the difference in response between individuals to behavioural interventions, and so evaluating efficacy of a treatment may be less important than "treatment response" (ie: "a clinically meaningful response exhibited by a patient to an intervention"; McGuire and Paicentini 2016). In other words, the individual characteristics associated with improvements after treatment and with no improvements. Furthermore, tic remission (ie: complete removal) is rare, and so quality of life measures to cover coping with tics are relevant (McGuire and Piacentini 2016).

2.3. RESEARCH METHODS ISSUES AND EXAMPLES

2.3.1. Mediator Analysis

The Citalopram for Agitation in Alzheimer's Disease study (CitAD) is a double-blind, randomised clinical trial comparing citalopram [20] and placebo in reducing agitation in individuals with possible Alzheimer's disease (AD). It involved 162 completed participants at eight centres in North America between 2009 and 2013, and lasted nine weeks.

The independent variable (IV) was the drug or

[19] McGuire and Piacentini (2016) were cautious about an association between number of sessions and improvements in tics. They stated: "For instance, the number of sessions per component is often not reported in published reports. Moreover, during psychotherapy sessions multiple components can be employed within a single session. Thus, this finding may be complicated by the dose and/or duration of each therapeutic component" (McGuire and Piacentini 2016 pp35-36).

[20] A selective serotonin reuptake inhibitor (SSRI) type of anti-depressant.

placebo, and the dependent variable (DV) was the level of agitation as measured by the Neurobehavioural Rating Scale Agitation sub-scale (NBRS-A) (Levin et al 1987). The citalopram group had a significant reduction in agitation at week 9 (Porsteinsson et al 2014).

Newell et al (2016) analysed the data further to see if agitation was reduced by a sedative effect of the drug. This was partly the case as measures of fatigue and sleepiness increased during the study for the citalopram group, but also to some extent in the placebo group. Statistical analysis showed that sedation only explained part of the change in agitation, so "other factors are required to explain the majority of effects of citalopram on agitation in patients with Alzheimer's disease" (Newell et al 2016 p19).

Newell et al (2016) were performing a mediator analysis. This is a statistical re-analysis of data to find a mediator of the change in the original study. Kazdin (2007) defined a mediator as "an intervening variable that may account (statistically) for the relationship between the independent and dependent variable" (quoted in Newell et al 2016). The mediator here was sedation, which was based on the ratings of fatigue and sleepiness on a four-point scale.

To show the mediator effect, the statistical analysis had to establish three things (Newell et al 2016):

i) Temporal precedence - Change in the mediator (sedation) is before or at the same time as change in the DV (agitation). This was found with change in sedation (baseline to week 3) preceding change in agitation (baseline to week 9).

ii) Correlation - A significant correlation between treatment (citalopram) and mediator. This was found for baseline to week 3 of the study.

iii) Regression analysis [21] - This showed that for both the citalopram and placebo groups increases in sedation were associated with improvements in agitation, but the relationship was stronger for the drug group.

2.3.2. Meta-Analysis Example

Individuals with severe mental illness (SMI), among other problems, consume more energy-dense foods (which

[21] Regression analysis uses the relationship between two variables to predict the DV (target/outcome) from the IV (predictor) with the regression line, while multiple regression is used to predict the outcome from several predictor variables (Coolican 2004).

are highly processed and high in salt), and less fruit and vegetables than the general population. They also have relatively less exercise, and are more likely to smoke and substance use. Furthermore, anti-psychotic medication is known to increase eating without satiety, particularly of sweet foods and drinks (Teasdale et al 2017).

The upshot is poor physical health for individuals with SMI, including overweight/obesity and associated risks. Thus the need for interventions. Teasdale et al (2017) performed a meta-analysis of nutrition interventions.

The researchers searched for randomised controlled trials (RCTs) published up to February 2015 that improved nutrition for individuals with SMI (eg: nutrition education and counselling, shopping advice and help, cooking classes). SMI was defined as schizophrenia spectrum disorder, bipolar affective disorder, and depression with psychotic features. Outcome measures included weight, body mass index (BMI), and waist circumference.

The quality of the RCT was rated using four criteria:

- Participants blind to condition (concealed allocation);
- Experimenter blind to condition (assessor masking);
- Conditions treat the participants the same except for the intervention;
- Participants randomised to conditions.

Twenty relevant studies were found, of which seven were classed as best methodological quality (ie: all four criteria met) and four studies fulfilled three of the above criteria. Overall, nutrition interventions were significantly more effective in reducing weight, BMI and waist circumference compared to controls. Dietician-delivered interventions were more effective than those delivered by other health professionals. Nutrition interventions delivered at the onset of anti-psychotic medication were better than later.

There were not enough studies to determine which type of nutrition intervention was most effective, but studies that included other lifestyle interventions, like more exercise, were best.

2.3.2. Covert Observation

Covert observation (CO) is where individuals are

observed without knowing it (ie: no consent), either the researcher is hidden (ie: invasion of privacy), or part of the group but keeping their identity as a researcher hidden (ie: deception involved). The three ethical issues mentioned in brackets have led Bulmer (1982), for example, to argue that "the use of covert observation should be highly exceptional, requiring the most careful justification, if indeed used at all" (Walters and Godbold 2014 p531).

The "end justifies the means" argument is often used in defence of CO. The "end" being findings that would not be possible with other methods, either because individuals, who know they are being watched, change their behaviour, or lack of access to hidden groups.

CO in public places, and, in particular, the lack of consent from participants is defended because individuals would expect to be seen in such places. Spicker (2011) suggested that "action in a public space has implicit consent and that 'consent becomes morally irrelevant, because the information is beyond the rights of the individual to control'" (Walters and Godbold 2014 p533).

Hobson (2006) asked individual students in a class to watch each other, some covertly and some overtly. The overt version produced "observer effects" (ie: changes in the behaviour of those being observed). Interestingly, it was found that "covert observation participation can result in distress to both participants and observers; and, third, in spite of an increased awareness of distress that can result from covert observation (to both observers and the researched), most participants felt such methods were justifiable in certain situations" (Walters and Godbold 2014 p533). "Post-hoc disclosure" (ie: disclosure after the event) was also used (Walters and Godbold 2014).

2.3.4. Miscellaneous Research Designs

The "Delphi technique" is a type of survey design that seeks the views of experts on an issue, and with the aim of gaining a consensus (Parahoo 1997).

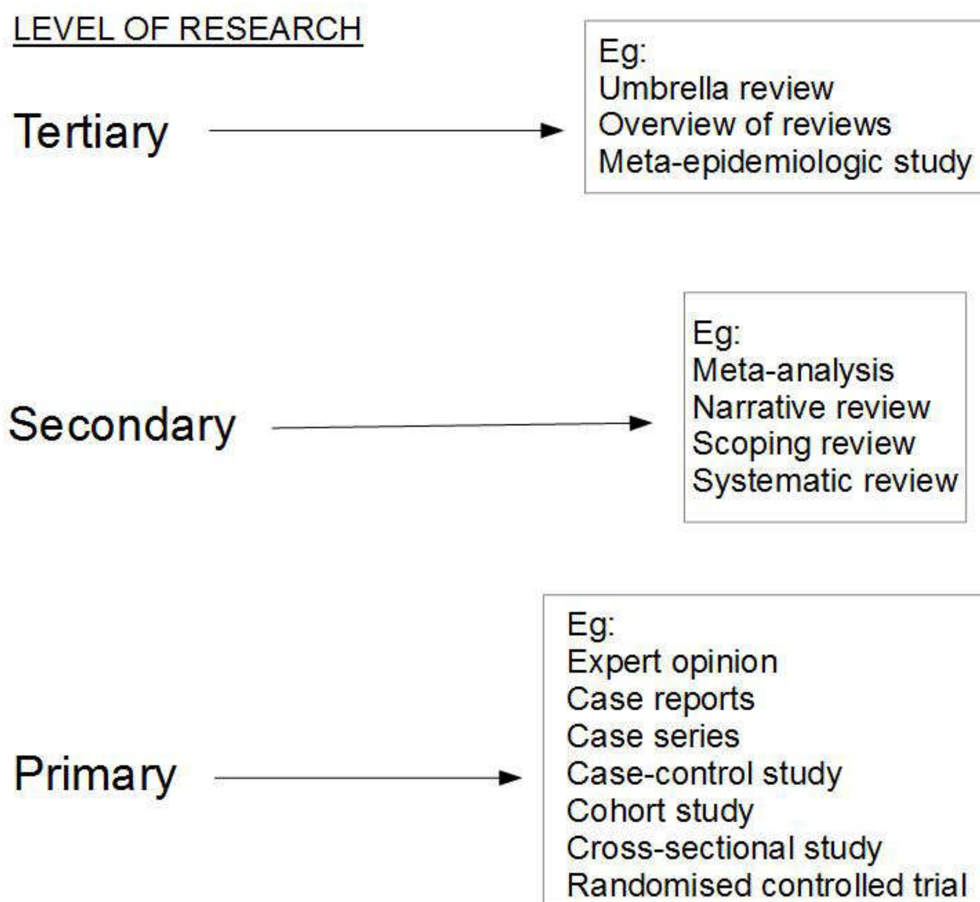
The Solomon Four Design experiment is used to control for the influence of pre-testing (Parahoo 1997) (table 2.2).

Condition	Pre-test	Intervention	Post-test
Experimental 1	yes	yes	yes
Control 1	yes	no or usual	yes
Experimental 2	no	yes	yes
Control 2	no	no or usual	yes

Table 2.2 - Solomon Four Design experiment.

2.4. APPENDIX 2A - SYNTHESIS METHODS

Evidence is "the body of facts and information available on a specific belief" (Biondi-Zoccai 2016 p3). Ng and Benedetto (2016) described it differently: "Evidence is an observation made in nature. By making observations, we can draw logical conclusions and make inferences about cause and effect. However, these conclusions can be influenced by human emotion and bias, rendering them inaccurate about the original observation. The scientific method was thus developed to minimise such error" (p12). Evidence is hierarchical (figure 2.1).



(Based on Biondi-Zoccai 2016 table 1.1 p5 and Ng and Benedetto 2015 figure 2.1 p18)

Figure 2.1 - Hierarchy of evidence and methodologies.

First, there are individual studies on a topic (primary research level), then comes systematic reviews of multiple studies on the topic [22] and meta-analyses [23]

[22] A review involves "view, inspect, or examine a second time or again" (Grant and Booth 2009 quoted

(secondary research level). Then there are umbrella reviews, overviews of systematic reviews and meta-epidemiologic studies [24]. These are like "reviews of reviews" (tertiary research level) (Biondi-Zoccai 2016).

Umbrella reviews "can be operatively considered exercises in evidence synthesis focusing on a specific clinical topic or condition, and including mainly systematic reviews, but with the possible inclusion of primary studies outside any prior meta-analysis" (Biondi-Zoccai 2016 p6).

Ortega et al (2016) used this definition: "a review of compelling evidence from multiple reviews into one accessible and usable document. It focuses on a broad condition or problem for which there are competing interventions and highlights reviews that address these interventions and results. Methodologically speaking, they search for reviews, nor for primary studies, and the synthesis is graphical and tabular with a narrative commentary. Its purpose is to analyse what is known, make recommendations for practice, identify what remains unknown and make recommendations for future research" (p26).

Overviews of systematic reviews do not include primary studies outside of prior systematic reviews, and meta-epidemiologic studies tend to focus on systematic reviews also but without the aim of informing on a specific topic (Biondi-Zoccai 2016) [25].

Ortega et al (2016) stated: "The ever-increasing volume of evidence makes it necessary to create forms of evidence synthesis which enable the integration of diverse types or pieces of evidence into a whole which can then be usefully consulted when the decisions are taken" (p22) [26].

---

in Ng and Benedetto 2016), and synthesis is "the contextualisation and integration of research findings of individual research studies within the larger body of knowledge on the topic" (Grimshaw 2010 quoted in Ng and Benedetto 2016).

[23] According to the US National Library of Medicine, meta-analysis is a "quantitative method of combining the results of independent studies, usually drawn from the published literature, and synthesising summaries and conclusions which may be used to evaluate therapeutic effectiveness, plan new studies, etc, with application chiefly in the areas of research and medicine" (quoted in Ng and Benedetto 2016).

[24] Meta-epidemiology was coined by Naylor (1997).

[25] Tsagris and Fragkos (2016) noted the lack of clarity about terminology - "overviews or reviews, overviews of systematic reviews, systematic reviews of systematic reviews, umbrella reviews, umbrella reviews of systematic reviews, systematic umbrella reviews, treatment networks, multiple treatments meta-analysis, meta-analysis of meta-analyses, and meta-epidemiologic studies" (p44).

[26] However, reanalysis can lead to different conclusions (eg: Ebrahim et al 2014: one-third of 37 reanalyses of medical randomised controlled trials) (Ortega et al 2016).

2.5. REFERENCES

Azrin, N.H & Nunn, R.G (1973) Habit reversal: A method of eliminating nervous habits and tics Behaviour Research and Therapy 11, 619-628

Biondi-Zoccai, G (2016) Introduction. In Biondi-Zoccai, G (ed) Umbrella Review: Evidence Synthesis with Overview of Reviews and Meta-Epidemiologic Studies New York: Springer

Bulmer, M (1982) Social Research Ethics: An Examination of the Merits of Covert Participant Observation London: Macmillan Press

Coolican, H (2004) Research Methods and Statistics (4th ed) London: Hodder & Stoughton

Ebrahim, S et al (2014) Reanalyses of randomised clinical trial data Journal of the American Medical Association 312, 1024-1032

Franklin, S.A et al (2010) Behavioural interventions for tic disorders Psychiatric Clinics of North America 33, 3, 641-655

Grant, M.J & Booth, A (2009) A typology of reviews: An analysis of fourteen review types and associated methodologies Health Information and Libraries Journal 26, 91-108

Hobson, A.J (2006) Guilt, betrayal and utilitarian ethics: Research participants' experiences of covert participant observation. In Kozuh, B et al (eds) Description and Explanation in Educational and Social Research Warsaw: Rodn "WOM" Publishers

Howell, D.C (2002) Statistical Methods for Psychology (5th ed) Pacific Grove, CA: Duxbury

Kazdin, A.E (2007) Mediators and mechanisms of change in psychotherapy research Annual Review of Clinical Psychology 3, 1-27

Leckman, J et al (1989) The Yale Global Tic Symptom Severity Scale (YGTSS): Initial testing of a clinically-rated scale of tic severity Journal of the American Academy of Child and Adolescent Psychiatry 28, 566-573

Leckman, J et al (1993) Premonitory urges in Tourette's syndrome American Journal of Psychiatry 150, 98-102

Levin, H.S et al (1987) The neurobehavioural rating scale: Assessment of the behavioural sequelae of head injury by the clinician Journal of Neurology, Neurosurgery and Psychiatry 50, 183-193

McGuire, J.F & Piacentini, J (2016) Correspondence: Further evidence of behavioural interventions for tic disorders: A reply to Theule and colleagues Journal of Psychiatric Research 74, 35-37

McGuire, J.F et al (2014) A meta-analysis of behaviour therapy for tourette syndrome Journal of Psychiatric Research 50, 106-112

Naylor, C.D (1997) Meta-analysis and the meta-epidemiology of clinical research British Medical Journal 315, 617-619

Newell, J et al (2016) Sedation mediates part of Citalopram's effect on agitation in Alzheimer's disease Journal of Psychiatric Research 74, 17-21

Ng, C & Benedetto, U (2016) Evidence hierarchy. In Biondi-Zoccai, G (ed) Umbrella Review: Evidence Synthesis with Overview of Reviews and Meta-Epidemiologic Studies New York: Springer

Ortega, A et al (2016) From qualitative reviews to umbrella reviews. In Biondi-Zoccai, G (ed) Umbrella Review: Evidence Synthesis with Overview of Reviews and Meta-Epidemiologic Studies New York: Springer

Parahoo, K (1997) Nursing Research: Principles, Process and Issues Basingstoke: Palgrave Macmillan

Piacentini, J & Chang, S (2005) Habit reversal training for tic disorders in children and adolescents Behaviour Modification 29, 6, 803-822

Porsteinsson, A.P et al (2014) Effect of citalopram on agitation in Alzheimer's disease: The CitAD randomised clinical trial Journal of the American Medical Association 311, 682-691

Spicker, P (2011) Ethical covert research Sociology 45, 1, 118-133

Teasdale, S.B et al (2017) Solving a weighty problem: Systematic review and meta-analysis of nutrition interventions in severe mental illness British Journal of Psychiatry 210, 110-118

Theule, J et al (2016) Correspondence: Psychosocial treatments for tic disorders: A meta-analysis Journal of Psychiatric Research 74, 8-9

Tsagris, M & Frangkos, K.C (2016) Umbrella reviews, overviews of reviews, and meta-epidemiologic studies: Similarities and differences. In Biondi-Zoccai, G (ed) Umbrella Review: Evidence Synthesis with Overview of Reviews and Meta-Epidemiologic Studies New York: Springer

Walters, S.R & Godbold, R (2014) Someone is watching you: The ethics of covert observation to explore adult behaviour at children's sporting events Journal of Bioethical Inquiry 11, 531-537

Weisman, H et al (2012) Systematic review: Pharmacological treatment of tic disorders - efficacy of anti-psychotic and alpha-2 adrenergic agonist agents Neuroscience and Biobehavioural Reviews 37, 6, 1162-1171