Researching the Social Determinants of Health using Social Quality Theory: A National Survey in Australia

Paul R. Ward, Loreen Mamerow, Samantha Meyer, Fiona Verity

1 Introduction

The World Health Organisation (WHO) has urged governments around the world to focus public health policy, practice and research on the SDH in order to improve the health of the most vulnerable and marginalised groups (Pittman 2006; Gilson, Doherty et al., 2007; Commission on Social Determinants of Health 2008). The Commission on the Social Determinants of Health (CSDH) drew global attention to the multiple forms of oppression and disadvantage experienced by the most vulnerable members of society which lead to unacceptable inequities in health (Commission on Social Determinants of Health 2008). Indeed, Professor Sir Michael Marmot recently referred to these health inequities as a “stain on our society” which require concerted political will and moral imperative to change (Kondro 2012). In order for governments to reduce inequities in health within their countries, the CSDH called for a ‘joined up’, multi-sectoral approach which recognises the multidimensional nature of the problem. In this way, reducing health inequities requires additional action in spheres of government policy outside of healthcare, such as poverty reduction, welfare support, community development and other health promotion activities. The CSDH also builds on seminal multi-national agreements such as the Ottawa Charter, the Alma Ata Declaration and the Bangkok Declaration which also argue for ‘joined up government’ in order to improve the health of the most vulnerable groups in society.

Recognition of the SDH, from a policy perspective, is essential for health sector policy decision-making (Makinen, Waters et al., 2000) since health policies shape health systems, and consequently, the broader SDH. Despite the differences in political and economic climate in the countries under analysis, our findings highlight patterns of social quality which require policy responses. We argue that our data should be used as a means of deciding the most appropriate policy response for each country which includes, rather than excludes, socially marginalised population groups (Freedman, Waldman et al., 2005). These findings should be of interest to those involved in health policy, but also in policy more generally because as we have identified, health is influenced by determinants outside of the health system (Lee, Fustukian et al., 2002).

For well over twenty years policy makers, health and social reformers in Australia have advocated the practical sense of an integrated approach in policy making and service delivery; to move from ‘silos to a system’, towards ‘whole of government approaches’, and ‘health in
all’ (Menedue 2003; Wood 2008; Kickbusch 2008: 9). However, an unsettled question remains how this best is done. Our purpose in this chapter is to demonstrate the practical utility of the social quality approach as a means to guide the development of policies, practices and systems in accord with this objective.

Whilst we agree with the need to focus on multiple forms of disadvantage and thus complex and holistic policy responses, our previous paper argued that many conceptual frameworks currently used in public health research do not lend themselves easily to being useful for these purposes (Ward, Meyer et al., 2011). For example, there are large amounts of research which provide evidence that certain population groups are more socially excluded (Giddens 1994), have lower levels of social capital (Ahern and Hendryx 2003), have poorer access to financial resources, health promoting or curative services (Spicer 2009) and that some groups are disempowered (Ward and Coates 2006). All of these factors have been shown to be SDH, in that higher levels of social inclusion, social capital, access to finance and services and empowerment are all ‘good for your health’; however, taken on their own, these studies are useful only in so far as they paint part of the picture as to both the problems and solutions for increasing the health of vulnerable groups. What they do not do is provide both a conceptual and methodological framework for linking these various concepts for the same population groups, which would then highlight the potentially multiple or cumulative ‘problems’ that certain population groups face, or the particular ‘problems’ that other groups face. This fragmented policy and research context has been described as ‘…a field of turbulent discourses; different problems, different analyses and different strategies sweeping across the policy field like storm clouds under time lapse photography (p. 22)” (Legge, Wilson et al., 1996). Research studies may highlight the need to implement policy to increase the social capital for particular groups, or to facilitate more socially inclusive policies or systems, but rarely can such studies (due to their conceptual limitations) provide evidence for policies and systems which attend to the multiplicity of needs highlighted by the CSDH. Therefore, research is required to unify theories and analyses that on their own, concentrate on one aspect of a dynamic and fragmented health and social policy context.

This chapter has two main aims. Firstly we introduce a theoretical and conceptual framework developed in social policy in Europe, known as social quality theory (van der Maesen and Walker 2005; Ward 2006; Ward, Redgrave et al., 2006; Walker 2009; Ward and Meyer 2009), which aims to overcome the ‘silo’ problem mentioned above and provides a holistic approach to understanding the SDH and potentials for policy initiatives. Secondly, we go on to describe a study of social quality in Australia, and in so doing, highlight the utility of such an approach for researchers and policy makers in public health interested in both understanding and responding to the SDH for the most vulnerable groups in society.

1.1 Policy Context in Australia

Australia in the early 21st century is varied in the cultures and socio-economic status of its inhabitants. Whilst in the main Australia escaped the severe hardships resulting from the Global Financial Crisis, unlike the European and North American experience, it is increasingly a society of contrasts. This is seen in socio-economic and health chasms opening up between population groups living in the same cities and between cities and regions (Gleeson 2004:3; Vinson 2007; ACOSS 2011). It is also evident in the different fortunes of sectors of the Australian economy. Australia’s connections to Asian markets, especially to China and India, the strength of mining activity and exports relative to the retail sector, and the recent strong Aus-
talian dollar are contributors to what is called a two speed economy (OECD 2010). Nowhere is this gap more manifest than in the circumstances for Indigenous Australians relative to non-Indigenous Australians (Thomson, MacRae et al., 2010).

To close these gaps and advance social quality, there has been a plethora of public policy programs developed at different levels of the federated system of government. These include initiatives to support economic objectives and social objectives. The latter include means tested social security payments, social service and health provision and programs under the rubrics of strengthening social capital and stronger families and communities. In more recent times social inclusion has taken on policy prominence and informed measures to lift community and economic participation and tackle disadvantage. The South Australian Labor government was first to develop a dedicated Social Inclusion Unit, followed by the establishment in 2007 of a national Labor Government’s Social Inclusion Initiative (http://www.socialinclusion.gov.au/aus_inclusion_board/inclusion_board.htm). These policies sit within a changing Australian welfare state, which for more than three decades has been increasingly dominated by values and practices supportive of self-responsibility, a resurgence of private market provision to meet social objectives and reduced direct government provision. Bryson and Verity call this a ‘radical neo-liberal economic turn of social policy’ (Bryson and Verity 2009: 67). The implementation of Welfare-to-Work reform is an example informed by this ideology as is privatisation and outsourcing policies.

It is against this backdrop of growing inequities and a neo-liberal welfare state that we focus in this Chapter on an assessment of individual and social well-being in Australia in late 2009. We do this using the tool known as theory of social quality as an innovative theoretical and methodological tool for researchers and policy makers wanting to understand and respond to the SDH (Beck, van der Maesen et al., 1998; Beck, van der Maesen et al., 2001; Walker and van der Maesen 2004; van der Maesen and Walker 2005; Ward 2006; Ward 2006; Ward, Redgrave et al., 2006; Taylor-Gooby 2006c; Ward and Meyer 2009; Meyer, Luong et al., 2010). One of the advantages is that it enables what we view as complex understandings of social problems and potentials for social change. In other words it links between personal domains and agency and the structural context which impact on SDH.

Measuring social quality of life in the Australian context is not in new. Australia has a tradition of social research about quality of life (Eckersley 1999) in the form of market research like the national ‘Mind and Mood’ Reports by Hugh MacKay now Ipsos MacKay and measures administered by the Australian Bureau of Statistics. The first national Australian Survey of Social Attitudes was in 2003 (Wilson, Meagher et al., 2005) and in 2004 the Australian Bureau of Statistics released indicators on measuring social capital (Australian Bureau of Statistics 2004) with metrics for quality and the strength of social networks. There has, however, been limited application in public health research and social policy of the European approach known as the TSQ (van der Maesen and Walker 2005; Ward 2006; Ward, Redgrave et al., 2006; Walker 2009; Ward and Meyer 2009). We have provided a detailed account of social quality theory elsewhere, in which we argued that social quality provides a comprehensive conceptual and methodological framework for measuring the SDH (Ward, Meyer et al., 2011). However, we provide a brief summary here in order to provide necessary context for this chapter.
1.2 Social Quality Theory

Social quality theory is gaining international recognition as an innovative theoretical and methodological tool for researchers and policy makers in social policy and political science (Beck, van der Maesen et al., 1998; Beck, van der Maesen et al., 2001; Walker and van der Maesen 2004; van der Maesen and Walker 2005; Ward 2006; Ward 2006; Ward, Redgrave et al., 2006; Taylor-Gooby 2006c; Ward and Meyer 2009; Meyer, Luong et al., 2010), although little attention has been given within public health research and policy. Social quality has been defined as “the extent to which people are able to participate in the social, economic life and development of their communities under conditions which enhance their wellbeing and individual potential (p.3)” (Beck, van der Maesen et al., 1998).

Social quality theory was initially developed by the European Network Indicators of Social Quality (ENISQ) (van der Maesen and Walker 2005). The ENISQ developed indicators (or metrics) of social quality so that governments and researchers could assess social quality within and between societies or Nation States, using only routinely available data sources. Whilst this has benefits in terms of not needing to design and implement primary research, it also relies on existing datasets, which are often collected for administrative purposes and are often relatively old. Therefore, we used the indicators to develop a new social quality questionnaire to measure social quality. In this way, we have advanced the methodological and practical aspects of social quality theory by providing researchers and policy makers with a readily available instrument to measure social quality, and thus the SDH.

Social quality theory has both ideological and methodological underpinnings. In terms of its underlying ideology, social quality theory argues that there four key normative factors that determine the quality of the social structures, policies and relationships within a society: social justice; solidarity; equal value of all humans; and human dignity (Beck, van der Maesen et al., 2001). A society can be judged according to these normative factors, both in a global sense (i.e. how good is the social quality of a particular society) but also in terms of the specific normative factors (i.e. which factors require policy response in a particular society). However, on their own, these normative factors are not easily operationalised and do not have a methodological framework. Therefore, within social quality theory, there are a set of conditional factors which are aimed at rendering the normative factors ‘researchable’. The four conditional factors are socio-economic security (linked to social justice), social cohesion (linked to solidarity), social inclusion (linked to equal value) and social empowerment (linked to human dignity). These four conditional factors were measured using the newly developed social quality survey.

Socio-economic security is concerned with the extent to which people or groups have access to, utilisation of and successful outcomes related to a variety of resources over time. These resources may be related to, among other things, finance, housing, healthcare, employment and education. Socio-economic security has great historical credence in public health policy and practice in terms of the importance of such factors in shaping inequalities in health and inequities in health care. Huge effort has been put into both public health policy (Commission on Social Determinants of Health 2005; Commission on Social Determinants of Health 2007; Commission on Social Determinants of Health 2008) and research around understanding the causes and mechanisms of socio-economic inequalities in health, with most authors regarding it as a key SDH (Marmot and Wilkinson 2006; Wilkinson and Pickett 2006; Wilkinson and Pickett 2007; Ostlin, Schrecker et al., 2010).
Social cohesion relates to the extent to which people and groups share social relations. Such relations may refer to shared identities, values and norms. This domain relates closely to issues of solidarity and trust, which are again, particularly important in terms of public health (Ward and Coates 2006; Meyer, Ward et al., 2008; Meyer, Luong et al., 2012). In many ways, this domain relates to the concept of social capital, which is now commonplace in public health policy and research (Lochner, Kawachi et al., 2003; Subramanian, Lochner et al., 2003; Kim, Subramanian et al., 2006), although has its roots in sociological theory (Bourdieu 1984; Colclough and Sitaraman 2005; Carpiano 2006; Poortinga 2006; Poortinga 2006). Indeed, early sociologists such as Durkheim argued for the centrality of social cohesion for protecting health (Durkheim 1951) and contemporary sociologists such as Giddens and Luhmann argue that trust and social networks are the glue that hold society together, providing existential security, thereby protecting mental health (Luhmann 1979; Giddens 1990; Giddens 1994; Luhmann 2000).

Social inclusion, is in many ways, similar to social cohesion, although the difference is that social inclusion is related to the extent to which people and groups have access to and are integrated into the different institutions and social relations of ‘everyday life’. This domain relates to the extent to which people and groups ‘feel part of’ or included in society, at an everyday level, and thus attempts to integrate dualistic processes at the level of systems (i.e. institutions and social systems) and individuals. In so doing, it extends Parsons’ notions of social systems by seeing their interconnectedness with individual lifeworlds (Parsons 1951), which Giddens called the duality of structure (Giddens 1984). In this way, the domain of social inclusion fits neatly with system/lifeworld theories expounded by Habermas (Habermas 1997) and structure/agency argued by Giddens (Giddens 1984; Giddens 1990; Giddens 1991) and Archer (Archer 2003) in addition to public health research which provides empirical evidence on the links between social inclusion and health (Scambler 2001; Scambler and Britten 2001; Williams and Popay 2001).

Social empowerment relates to the extent to which the personal capabilities of individual people are enhanced by social relations, culminating in individuals feeling empowered within their country. In many ways, this builds on both social cohesion and social inclusion, revealing the integrated nature of social quality theory. In this way, this domain takes concepts of social inclusion and cohesion, and explores the enabling factors which empower people to act as social agents. This domain builds on, and empirically develops, notions of reflexivity outlined by Beck (Beck 1992; Beck, Giddens et al., 1994; Beck 2005) and Giddens (Giddens 1994) and extends the current evidence base on the positive effects of empowerment on both individual and public health (Laverack 2004; Laverack 2006; Wallerstein 2006).

As can be seen in this brief overview, the multi-dimensional and multi-level approach represents an advancement of public health policy and research, which is not solely aimed at either individuals or systems, but instead realises the intimate linkages between structure and agency and thus aims at understanding both within the same theoretical framework. The four conditional factors within social quality have all been shown individually to lead to better health, and as such are regarded as SDH, although have not been brought together into a single theoretical framework. The long-term aim of developing and implementing social quality theory is to enhance the social quality of peoples’ lives (especially vulnerable groups), but as already stated, we firstly need to have empirical data on the domains of social quality (and the groups who have lower social quality) before we can inform changes in policy and/or practice. The aim of this chapter is to describe the patterns with regards to social quality (as
measures of the SDH) and to identify both consistent and divergent patterns between countries. This chapter therefore represents baseline data from which the effectiveness of any future policy initiatives in Australia can be assessed.

2 Methods

There were three main research stages within this study: Pre-Pilot; Pilot Test; and, the Full Survey. Firstly, pre-pilot testing was undertaken to assess the validity of the measuring instrument used for the research - the questionnaire. Secondly, a pilot test was conducted to assess the reliability of the questionnaire. This was achieved by conducting a test-retest reliability test where analyses were carried out statistically. Lastly, the full survey was carried out once the pre-pilot and pilot test qualified the questionnaire to be sufficiently valid and reliable, respectively.

2.1 Pre-Pilot Test – Assessing the Validity of the Questionnaire

Face validity may be defined as having ‘experts’ review the contents of the instrument being used for measurement to ensure that is relevant and useful (Reber 1985). Therefore, in this case the participants’ feedback may be taken to be the expert opinions that are used as face validity to verify the researchers’ assessment. Thus, face validity was obtained by asking some of the participants for feedback. Feedback from both the research team and the pilot test participants was then taken into consideration to address the relevance of the questions and to make appropriate amendments to a few of the questions and/or question items prior to the statistical analysis of the pilot study.

Questions from pre-validated questionnaires, including the World Values Survey (World Values Survey Association 2005/2006) and the General Social Survey (National Opinion Research Center), were also employed in the SQ survey since they had previously been validated. Initially, the survey consisted of 58 questions that were predominantly constituted by nominal and ordinal levels of measurement. Although the SQ survey up until this point had been comprehensively developed and validated, in particular, for face, content, and construct validity (Bowling 2009), the need to ensure that the Australian research team had constructed a valid set of questions needed to be verified.

The questions used in the pilot test were developed by the Asia-Pacific Scientific Steering Group on Social Quality - Seoul National University led the process. The questionnaire itself was developed from the Social Quality Indicators developed by the ENISQ. All of the questions used in the questionnaire were either demographically relevant or related to any one of the four conditional factors of SQ (socio-economic security, social inclusion, social cohesion and social empowerment).

The initial stages of validity checking involved collaborative efforts across the Asia-Pacific research team, which included numerous and extensive face-to-face discussions. Revision and modification of the questionnaire lasted for approximately three months, including meticulous discussions of the cultural relevance of each question. The final questionnaire was agreed upon between all international teams in July 2009, which was subsequently tested for both validity and reliability (Meyer, Luong et al., 2010), including collaboration and agreement with the originators of the social quality indicators (Ferriss 2004).
Further amendments were made after receiving the final revised questionnaire from the Korean research team. Extensive meetings were carried out to meticulously discuss the cultural relevance, question by question. To check the validity of the amended ‘Australian version’ of the questionnaire, 33 participants were asked to answer the survey and provide feedback about their experience of answering the questionnaire.

2.2 Pilot Test – Assessing the Test-Retest and Inter-Item Reliability of the Questionnaire

A total of 33 Australian respondents (18 males and 15 females aged 19 to 63), residing in metropolitan Adelaide (South Australia) were recruited as a sample of convenience.

The original survey (before testing for reliability and face validity within this study) consisted of 58 questions (mostly nominal and ordinal levels of measurement) relating to the four domains of social quality, as well as demographic items.

Face validity, prior to the data analysis, was obtained through asking some of the respondents to offer feedback about their experience of answering the questionnaire. Face validity is often defined as having ‘experts’ review the contents of the instrument for usefulness, relevance, etc. (Reber 1985). It can be argued that the respondents have expertise. In addition to respondent feedback, two academics who have had research experience and taught on the subject of designing questionnaires have also reviewed drafts of the social quality questionnaire. Following feedback from both types of experts, some difficulties were established and appropriate amendments were made to a few of the questions prior to statistical data analysis.

The analyses were focussed on reliability testing using SPSS. Both test-retest and inter-item reliability analyses were conducted. If the results from the test re-test analyses (Kappa, or Spearman Correlation tests) and the inter-item reliability test (Cronbach’s α) were statistically non-significant (p > 0.05; N = 10-33) or the coefficients were < 0.70 for any of the questionnaire items, then the questions were amended or removed. Questionnaire items were also removed if response rates for these items were found to be very low (< 33%).

Test-retest reliability and obtaining face validity were conducted prior to inter-item reliability and as a result, some of the questions had already been changed prior to inter-item testing. Consequently, some of the questions were not subject to inter-item reliability. Any questions that scored poorly in inter-item reliability were subsequently altered. SPSS statistical analyses were used to identify items within questions that lowered the reliability scores. The questionnaire items that lowered the reliability of the questions were removed until Cronbach’s α was ≥ .70. For readers interested in more information, the results of the pilot study have been published (Meyer, Luong et al., 2010), as has the final questionnaire (Ward, Meyer et al., 2011).

2.3 Full Survey

Full details of the methods used in the full survey can be found in a previous publication (Ward, Meyer et al., 2011), but enough detail is provided here to give the reader sufficient information. A national postal questionnaire survey of a random sample of households was undertaken across Australia. It was necessary to divide the national population by state (Alreck and Settle 2004) due to the difference in population size in each State. Therefore, more surveys were sent out to states with higher population numbers (New South Wales 1650, Northern Territory 45, Queensland 971, South Australia 389, Tasmania 120, Victoria 1253, Western Australia 490, Australian Capital Territory 82). The sampling frame was the electronic white pag-
es, which contains postal addresses for all households with a telephone listed. Therefore, a small proportion of households who either do not have a telephone or have “silent” numbers were excluded. However, this possible limitation is outweighed by the fact that the electronic white pages is one of the only representative sources from which a national random sample of postal addresses can be generated.

A copy of the questionnaire, a letter of information, a letter of introduction, and a stamped return envelope was sent to each mail-out address September 2009. A postcard reminder was only sent out to those who had not returned the questionnaire after two weeks.

The hypothesised response rate was around 20% (based on the experience of the research team of conducting similar surveys in Australia), and in order to obtain a final sample size of 1000, it was estimated that an initial sample of 5000 addresses was required. Out of the 5000 surveys that were sent out, 638 were returned due to invalid addresses and 1044 were returned completed surveys. The actual response rate of 24% (1044/4362) was regarded as acceptable for this type of survey because of the decline in participation in survey research - see our previous paper for literature supporting this (Ward, Meyer et al., 2011). As noted earlier, reminders postcards were sent to non-responders to ensure as high a response rate as possible (Low, King et al., 1998). Nevertheless, the potential for survey non-response bias is acknowledged.

After data entry had been completed, an extra two variables were created from the postcode of the respondent. Both variables are derived from the national census. The first variable is called the Socio-Economic Indicator For Areas (or SEIFA) and provides a score for the level of socio-economic deprivation or affluence of the area. The second variable is called Accessibility and Remoteness Indicator for Areas (or ARIA) which provides a score for the distance of the postcode from major service centres. Both of these variables were thought to be potentially important when analysing differences in social quality.

Initially, descriptive analyses were undertaken in order to explore overall levels of social quality. We then performed bivariate logistic regression analyses in order to explore simple associations between a range of socio-demographic variables and the indicators of social quality. For the regression models, four questions identified by the ENISQ in 2004 (Ferriss 2004) as indicators of the four domains of social quality were used as dependent variables (i.e. one variable per domain of social quality). The complete questionnaire contained many indicators of social quality that have all been shown to be valid proxies for their relevant social quality domain [20]. All of these variables were found to have statistical significance with the listed demographic variables. For example, questions such as ‘Please indicate whether you or your family have experienced any of the following negative life events in the last 12 months?’, ‘How much do you trust various groups of people?’ were found to be associated with demographic variables; however, for the purpose of this chapter we have limited our results to one variable per domain. The independent variables chosen to investigate associations between social quality and demographic variables were age, sex, SEIFA IRSD (Socio-economic Index for Areas Index of Relative Socio-economic Disadvantage), ARIA (Accessibility/ Remoteness Index of Australia), employment status and income.

Bivariate analyses were conducted using Chi Squares (Cramer’s V and Phi) as well as T-tests, one-way ANOVAs, Mann-Whitney U, and Kruskal-Wallis H. Each test produced a table which was subsequently analysed for statistically significant associations. Any bivariate odds ratios with p<0.25 were then included in multivariate logistic regression analyses (Hosmer and Lemeshow 2000). The tables presented in our result section include only the results of bi-
Multivariate analyses found to have a p value of <0.25. All models were checked for collinearity and goodness of fit (Hosmer and Lemeshow 2000). During the bivariate analysis, some of the data was found to have expected cell counts less than five. As a result, many of the categories within the independent variables were collapsed in order to help the data meet the assumption. This was done by recoding the variables using SPSS. Data that could not be collapsed to help meet the assumption have not been included in the results section.

This study was given ethical clearance by the Social and Behavioural Research Ethics Committee at Flinders University.

3 Results

This section of the chapter provides statistical description and analysis of the data, focussing specifically on the four conditional factors within the social quality theory, namely socio-economic security, social cohesion, social inclusion and social empowerment. One multivariate regression model is presented for each of the four domains as a means of introducing the practical application of social quality theory. Each of the four models includes one social quality variable (social inclusion, social cohesion etc) as the dependent variable with the socio-demographic variables (sex, age, income etc) as independent variables.

3.1 Socio-economic Security

There were a number of variables that related to socio-economic security within the dataset, but for the purpose of this chapter, we have just used one variable. The question used to measure socio-economic security in the survey is outlined below:

- Please indicate whether you or your family have experienced any of the following in the last 12 months?
  1. Costly medical expenses
  2. Job loss or business bankruptcy
  3. Job insecurity
  4. Work injury
  5. Becoming a victim of crime
  6. Investment loss

Overall, 31% of respondents had experienced costly medical experiences, 10% had experienced job loss or bankruptcy, 14% had experienced job insecurity, 6.5% had experienced work injury, 6% had been a victim of crime, and 50% had experienced investment loss. Overall, there was a fairly low level of experiences of these negative life events, although costly medical expenses and investment loss were experienced by larger proportions of the population.

The variable was then recoded into two categories, those that had experienced at least one of these events (71.7%) and those who had not experienced any (28.3%). The multivariate odds ratios are in Table 1. The main points to take from this table are the higher levels of negative life events for people aged 55-64 (OR 2.41; 95% CI 1.34-4.32) and 65-74 (OR 3.55; 95% CI 1.72-7.34), and lower for retired people (OR 0.57; 95% CI 0.33-0.98) (the model was checked for collinearity given that these two variables could have been measuring the same factor – age).
<table>
<thead>
<tr>
<th>Age</th>
<th>OR (95% CI)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34 years</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>35-44 years</td>
<td>1.06 (0.60-1.87)</td>
<td>0.844</td>
</tr>
<tr>
<td>45-54 years</td>
<td>1.67 (0.97-2.86)</td>
<td>0.064</td>
</tr>
<tr>
<td>55-64 years</td>
<td>2.41 (1.34-4.32)</td>
<td>0.003</td>
</tr>
<tr>
<td>65-74 years</td>
<td>3.55 (1.72-7.34)</td>
<td>0.001</td>
</tr>
<tr>
<td>75 years and over</td>
<td>1.55 (0.71-3.38)</td>
<td>0.273</td>
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<th>Employment status</th>
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<td>Work full time or self employed</td>
<td>1.00</td>
<td></td>
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<tr>
<td>Work part time</td>
<td>1.18 (0.74-1.89)</td>
<td>0.478</td>
</tr>
<tr>
<td>Work without pay, unemployed, student, disability, other</td>
<td>1.33 (0.74-2.39)</td>
<td>0.342</td>
</tr>
<tr>
<td>Retired</td>
<td>0.57 (0.33-0.98)</td>
<td>0.042</td>
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<tr>
<td>Household duties</td>
<td>0.88 (0.45-1.73)</td>
<td>0.710</td>
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Model stable, Hosmer and Lemeshow, Chi square 8.19, $p = 0.415$

Table 1: Multivariate odds ratios of demographic factors associated with those who experienced at least one negative life event.

Overall, our data suggest fairly low levels of socio-economic insecurity in Australia, although there are some particular financial issues such as loss of investments and rising medical costs. The regression model shows that older people experience higher socio-economic insecurity than younger people.

3.2 Social Cohesion

The variable chosen for analysis relating to social cohesion was:

- How much do you trust various groups of people?
  1. Your family
  2. Your neighbours
  3. People you meet for the first time
  4. Your regular doctor
  5. Doctors in general
  6. A doctor you are seeing for the first time
  7. People of another religion
  8. People of another nationality
  9. National political leader
  10. Your local politician
  11. Police officers

The response categories were ‘completely distrust’, ‘distrust a little’, ‘trust a little’, and ‘completely trust’. Overall, 82% of respondents trust their family completely, 34% trust neighbours completely, 22% trust doctors completely, 18% trust people of another religion completely, 15% trust people of another nationality completely, 2% trust national political leaders completely and 25% trust police officers completely. From a social perspective, the relatively low numbers of people that trust neighbours and even lower numbers that trust people of another nationality or religion is worrying. In addition, only 22% trust doctors completely, 25% trust
police officers completely although only 2% trust the national political leader completely, all of which have serious policy ramifications.

The variable was then recoded so that those who trusted completely were given a score of 1 and those who completely distrusted were given a score of 4. Scores could range from 11 (most trust) to 44 (least trust). Scores ranged from 11 to 37 with a mean of 21.53 and SD 4.09. A variable was then created with two levels, those who trusted all of the groups completely or somewhat (20.6%) and those who did not trust all groups completely or somewhat (79.4%). Univariate odds ratios then examined the relationship between those who trusted at least one of the groups completely or somewhat and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA). The multivariate odds ratios are in presented in Table 2.

<table>
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<th>Sex</th>
<th>OR (95% CI)</th>
<th>p value</th>
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<td>Male</td>
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<tr>
<td>Female</td>
<td>1.77 (1.18-2.66)</td>
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<table>
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<tr>
<th>Age</th>
<th>OR (95% CI)</th>
<th>p value</th>
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<tbody>
<tr>
<td>18-34 years</td>
<td>1.00</td>
<td></td>
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<tr>
<td>35-44 years</td>
<td>2.02 (0.87-4.71)</td>
<td>0.104</td>
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<td>45-54 years</td>
<td>1.29 (0.56-2.98)</td>
<td>0.548</td>
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<td>55-64 years</td>
<td>2.67 (1.18-6.05)</td>
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</tr>
<tr>
<td>65-74 years</td>
<td>2.49 (1.07-5.80)</td>
<td>0.035</td>
</tr>
<tr>
<td>75 years and over</td>
<td>5.44 (2.12-14.01)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status</th>
<th>OR (95% CI)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never married</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>1.98 (0.67-5.85)</td>
<td>0.217</td>
</tr>
<tr>
<td>Married/defacto</td>
<td>3.33 (1.28-8.66)</td>
<td>0.014</td>
</tr>
<tr>
<td>Widowed</td>
<td>1.80 (0.54-6.02)</td>
<td>0.340</td>
</tr>
</tbody>
</table>

*Model stable, Hosmer and Lemeshow, Chi square 1.14, p = 0.992*

Table 2: Multivariate odds ratios of demographic factors associated with those who trusted all groups completely or somewhat.

Table 2 shows that women are approximately 80% more likely to have high trust than men (OR 1.77; 95% CI 1.18-2.66), older people are more likely to have high trust than younger people, and that married people are more likely to have high trust than never married people. Indeed, people aged over 75 years are almost 5.5 times more likely to have high trust than people aged 18-34 years (OR 5.44; 95% CI 2.12-14.01) and people who are married are 3.3 times more likely to have high trust than people who have never been married (OR 3.3; 95% CI 1.28-8.66). Therefore, our data show that social cohesion is higher for women, older people and married people.

### 3.3 Social Inclusion

Social inclusion deals with an individual’s accessibility to institutions and the degree of social integration that the individual attains to (Walker and Wigfield 2004). The variable chosen to examine social inclusion was:
During the past 12 months, have you ever experienced discrimination against you due to any of the following reasons?

1. Physical/mental disability
2. Age
3. Sexual harassment
4. Gender
5. Nationality
6. Physical appearance
7. Ethnic background
8. Criminal record
9. Religion
10. Other

The proportion of respondents who had experienced discrimination varied: 4% experienced disability discrimination, 14% age discrimination, 2% sexual discrimination, 7% gender discrimination, 4% nationality discrimination, 6% physical appearance discrimination, 3% ethnic background discrimination, 1% criminal record discrimination, 2% religious discrimination, and 4% other discrimination. The variable was then recoded into two categories, those who had experienced discrimination (23.9%) (excluding the ‘other’ responses due to the large number of missing) and those who had not experienced any discrimination (76.1%). Univariate odds ratios then examined the relationship between those who experienced discrimination and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA), and the multivariate analysis is presented in Table 3.

Table 3 shows that women are more likely to experience discrimination in addition to people on lower incomes (measured by the individual income and also the area based SEIFA score). However, older people are less likely to experience discrimination. Women are over 50% more likely to have experienced discrimination than men (OR 1.53; 95% CI 1.06-2.12), people in the lowest income group ($0-$44,999) are over 70% more likely to have experienced discrimination than the highest income group (OR 1.71; 95% CI 1.04-2.81) and people aged over 75 years are over 50% less likely to have experienced discrimination than the youngest group (OR 0.43; 95% CI 0.19-0.98). Overall, social inclusion is high in Australia as measured by generally low levels of perceived discrimination. Nevertheless, some groups are more likely to perceive discrimination, such as women, people on lower incomes and younger people.

3.4 Social Empowerment

The variable chosen for analysis relating to social empowerment was:

- Please rate how strongly you agree/disagree with each of the following statements below:
  1. I am optimistic about the future
  2. In order to get ahead nowadays you are forced to do things that are not appropriate
  3. I feel left out of society
  4. Life has become so complicated today that I almost can’t find my way
  5. I don’t feel the value of what I do is recognised by others

Descriptive analysis of the data from this question revealed that 75% of respondents were optimistic about the future, 20% were forced to do something that was not appropriate, 9% felt left out of society, 18% felt that life was too complicated, and 24% felt that the value of what
they do is not recognised. Whilst three-quarters of respondents felt optimistic about the future, it is worrying that a fifth were forced to do something they did not want to do, and a quarter felt that they are not valued for what they do.

Each variable was then recoded into five variables, with the first variable comprising those who “agreed” and “strongly agreed” with the statement (compared to the remainder) and the remaining four variables those that “disagreed” or “strongly disagreed” with the statement (compared to the remainder). Finally a combined variable was created of those who were positive about at least one factor (94.9%) compared those who were not positive about any of the statements (5.1%). Univariate odds ratios then examined the relationship between those who experienced discrimination and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA) and the multivariate analysis is presented in Table 4.

<table>
<thead>
<tr>
<th>Sex</th>
<th>OR</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.53 (1.06-2.12)</td>
<td>0.022</td>
</tr>
</tbody>
</table>

Model stable, Hosmer and Lemeshow, Chi square 2.22, p = 0.974

Table 3: Multivariate odds ratios of demographic factors associated with those who experienced discrimination.

<table>
<thead>
<tr>
<th>Age</th>
<th>OR</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34 years</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>35-44 years</td>
<td>1.16 (0.62-2.17)</td>
<td>0.651</td>
</tr>
<tr>
<td>45-54 years</td>
<td>0.64 (0.35-2.17)</td>
<td>0.141</td>
</tr>
<tr>
<td>55-64 years</td>
<td>0.54 (0.29-1.03)</td>
<td>0.060</td>
</tr>
<tr>
<td>65-74 years</td>
<td>0.54 (0.28-1.08)</td>
<td>0.080</td>
</tr>
<tr>
<td>75 years and over</td>
<td>0.43 (0.19-0.98)</td>
<td>0.044</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income (financial year)</th>
<th>OR</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$105,000-$150,000+</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>$45,000-$104,999</td>
<td>1.09 (0.69-1.71)</td>
<td>0.716</td>
</tr>
<tr>
<td>$0-$44,999</td>
<td>1.71 (1.04-2.81)</td>
<td>0.034</td>
</tr>
</tbody>
</table>

Model stable, Hosmer and Lemeshow, Chi square 1.66, p = 0.976

Table 4: Multivariate odds ratios of demographic factors associated with those who had at least one positive feeling.
In Table 4, only one variable was left in the model, which is income. This model shows that people on lower incomes are almost 70% less likely to have positive feelings about being socially empowered, compared with people on higher incomes (OR 0.33; 95% CI 0.13-0.82).

4 Conclusions

The main aim of this chapter was to provide an analysis of the SDH in order to compare and contrast the predictors and vulnerable populations. We fulfilled this aim by using data from a population survey in Australia which used social quality as its conceptual framework. In terms of both conceptual and policy-related strengths, this paper presents the first attempt to conduct an analysis of social quality data with the specific purpose of identifying vulnerable population groups in terms of low socio-economic security, low social inclusion, low social cohesion and/or low social empowerment. Our analysis allows policy makers and researchers to identify population groups in need of policy and practice attention, both within and across countries. In particular, we have identified some population groups that have low levels of social quality across all four factors, identifying multiple and potentially cumulative disadvantage for these groups.

Social quality theory aims to move beyond partial understandings of social problems informed by single disciplinary knowledge, and partial explanations afforded by theories that examine only one area of social life. On the basis of the data reported upon in this chapter we contend social quality is useful because of this emphasis on a more complete and integrated picture. The picture developed in this chapter, using the four conditional factors of social quality, is that the social quality of life in Australia is relatively high across the four domains. Socio-economic security is high (except for approximately 30% of people who had costly medical expenses), social cohesion is fairly high (relatively high levels of trust in family, lower levels of trust in neighbours, and worryingly low levels of trust in people of another religion or nationality), social inclusion is high (low levels of perceived discrimination) and social empowerment is fairly high (three-quarters of respondents were optimistic about the future, but a fifth were forced to do something they did not want to do, and a quarter felt that they are not valued for what they do).

However social quality theory, in drawing together individual measures, does more than provide a holistic picture. It develops a picture of systematic differences in social quality between population groups at a point in time. As seen in this chapter, notwithstanding the relatively positive picture of social quality in Australia, there were systematic differences in social quality between population groups. People with the lowest annual income and/or in the most disadvantaged social group (measured by SEIFA) experienced higher levels of discrimination (lower social inclusion) and had more negative views about their place in society and their future (lower social empowerment). Therefore, on the basis of social inclusion and social empowerment, people with lower incomes have lower social quality than people on higher incomes.

Our findings showed a rather mixed picture on the basis of age, whereby older people experienced more negative financial experiences (lower socio-economic security) than younger people, although they also had higher levels of trust (higher social cohesion) and experienced lower levels of discrimination (high social inclusion). The lower socio-economic security may be indicative of the fact that older individuals are likely to be living off of pensions
and/or retirement plans and more likely to require medical care. However, this finding remains an important consideration in view of the estimations of population numbers who will be over 65 years by the year 2040 and that life expectancy is lengthening. However, the fact that younger people experience more discrimination and have lower levels of trust will require policy initiatives in order to increase trust and reduce discrimination in the future.

In terms of gender, women experience more discrimination (lower social inclusion) but have higher levels of trust (higher social cohesion) than men. Anti-discrimination and gender-mainstreaming policy is required to redress the difference in social inclusion and more research is required to understand and suggest policy options for increasing trust in men.

It is recognised globally that public health policy, practice and research needs to focus on addressing the SDH in order to increase the health of the most vulnerable and disadvantaged groups (WHO 2005; WHO Task Force on Research Priorities for Equity in Health 2005; Wilkinson and Pickett 2006; Commission on Social Determinants of Health 2008; Ostlin, Schrecker et al., 2010). Given the multiple and complex nature of the SDH, this chapter used a new conceptual framework called social quality, which we argue allows researchers and policy makers to measure and respond to the SDH. In a previous paper, we argued for the utility of social quality for researching the SDH (Ward, Meyer et al., 2011), and in this paper, we provided new empirical evidence. Our analyses focused on the four domains of social quality: socio-economic security, social cohesion, social inclusion and social empowerment, which we argue are key SDH. As such, our paper represents a key social epidemiological analysis of the SDH, and in particular, an important contribution to identifying vulnerable populations groups in need of policy and practice responses in Australia. Our results also provide baseline measures for identifying where and how policy should be altered to improve social quality and therefore, the SDH. Furthermore, these data can be used for future policy evaluation to identify whether changes in policy have indeed improved social quality and the SDH, particularly for marginalised and vulnerable populations with low levels of social quality.

**Authors**

Paul R. Ward, Loreen Mamerow  
*Discipline of Public Health, Faculty of Medicine, Nursing and Health Sciences, Flinders University, Australia*

Samantha B Meyer  
*School of Public Health and Health Systems, University of Waterloo, Canada*

Fiona Verity  
*School of Social Work and Social Policy, Flinders University, Australia*

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References


