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Mental health problems among single and partnered mothers**The role of financial hardship and social support**

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■ **Abstract** *Background* Research has shown elevated levels of common mental disorders among single mothers compared with partnered mothers. The objectives of this analysis were to examine the prevalence of mental health problems among single and partnered mothers and the extent to which this relationship is mediated by socio-demographic, financial and social support variables. *Methods* Using cross-sectional data from a large, nationally representative longitudinal Australian household survey—the Household Income and Labour Dynamics in Australia (HILDA) Survey—the prevalence of moderate to severe mental disability (as measured by the SF-36) was assessed among 354 single mothers and 1,689 partnered mothers. A series of univariate and simultaneous logistic regression analyses assessed the association between parenting status, the other explanatory variables and mental disability. Mediation analyses were conducted using the ‘explained fraction’ approach. *Results* The prevalence of moderate to severe mental disability was significantly more pronounced among single mothers (28.7%) compared with partnered mothers (15.7%). Including all explanatory factors—socio-demographic, household income, financial hardship and social support—accounted for 94% of the association between single mother status and poor mental health. Financial hardship and social support were the strongest

predictors, accounting for most of the predictive power of the other variables. *Conclusions* Single mothers are more likely to experience poor mental health than partnered mothers, and the primary factors associated with this are the presence of financial hardship in particular, as well as perceived lack of social support. Future research should examine the extent to which changes in financial hardship among different family types relate to changes in mental health over time, as well as continue to examine variables that may moderate the relationship between social disadvantage and poor mental health.

■ **Key words** single mothers – mental health – financial hardship

Introduction

The relationship between family type and mental health is well-documented, with research showing elevated levels of common mental disorders (such as anxiety, depression and substance use disorder) among single mothers compared with partnered mothers (e.g., Butterworth 2004; Wang 2004; Hope et al. 1999; Benzeval 1998; McLanahan and Adams 1987; Targosz et al. 2003). In analysis of the Australian National Survey of Mental Health and Well-being, Butterworth (2004) found approximately 45% of single mothers experienced a common mental disorder in the previous 12 months, compared to 23.6% of partnered mothers.

A range of factors have been proposed to explain the higher prevalence of mental health problems among single mothers, including financial hardship, unemployment, lack of social support, the responsibility of caring for children, the consequences of divorce and separation, trauma (e.g., domestic violence), childhood adversity, and socio-economic disadvan-

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tage (Brown and Moran 1997; Butterworth 2004; Hope et al. 1999; Meltzer et al. 1995; Weich et al. 1998). In their longitudinal analysis, Hope and colleagues found that financial hardship was the primary mediating variable, while employment, social support, number and age of children, and selection effects—whereby those with pre-existing mental health problems are more likely to become single mothers—had only modest to negligible contributions.

Single mothers are considered among the most economically and socially disadvantaged groups in many western countries, experiencing greater levels of financial hardship, poverty and social exclusion than other family and household types (Bray 2001; Brodsky et al. 2005; Lipman et al. 1997; Targosz et al. 2003). There is a well-established literature examining how financial hardship mediates the association between other forms of social disadvantage and mental health. For example, Kessler et al. (1987) reported that the relationship between unemployment and poor mental health in their U.S. sample was largely mediated (approximately 90%) by financial strain. Whelan (1992) demonstrated that poverty and primary deprivation (lack of food, lack of heating and problems paying debts) mediated the effect of unemployment on psychological distress in an Irish sample. He also found that deprivation mediated the influence of family income on mental health. Vinokur et al. (1996) showed that financial strain has a significant impact on the depressive symptomatology of unemployed jobseekers (male and female) and their partners.

Wang (2004) utilised a somewhat different analytic strategy on a sample of single and partnered Canadian mothers aged between 25 and 50. Rather than assessing the extent to which financial hardship mediated the association between lone parent status and mental health, the analytic approach used by Wang assessed whether the difference between lone and partnered mothers remained when relevant characteristics such as financial hardship were held constant. Wang's results showed no significant difference in depressive symptomatology between lone and partnered mothers who experienced financial hardship, whereas there were significant effects of partner status among those women not experiencing financial hardship (see also Brown and Moran 1997). One aim of the current paper, therefore, is to more explicitly examine the relationship between parenting status, risk factors such as financial hardship and household income, and mental health.

A limitation of many previous epidemiological studies examining the relationship between social disadvantage and mental health is the operationalisation of financial hardship. Wang's measure of financial hardship was based on a single item (having insufficient money to buy food) and may therefore be an unreliable indicator of this concept. Similarly, Targosz et al. (2003) used access to a car as a proxy for income or financial circumstances. A strength of

the current analysis is the availability of comprehensive data on both income and financial hardship. A set of seven items, based upon previous measures of financial hardship (e.g., Mack and Lansley 1985; Nolan and Whelan 1996; Townsend 1979; Travers and Richardson 1993; Travers and Robertson 1996) and used by the Australian Bureau of Statistics in the 1998–1999 *Household Expenditure Survey (HES)*, were assessed (Australian Bureau of Statistics 2000).

Social support is another factor that is associated with mental health outcomes. Brown et al. (1986) demonstrated that lack of social support during a crisis (e.g., death of a spouse) is associated with increased risk of depression. Whelan and colleagues (Whelan et al. 1991) also found that, for married couples, the impact of financial stress on mental health was strongest under conditions of low social support. Reading and Reynolds (2001) found similar evidence in their examination of the relationship between debt, social disadvantage and maternal depression: lack of social support was associated with higher depression scores among women.

On the other hand, the presence of social support can protect against the negative effects of stress and disadvantage (Brown et al. 1986; Harris et al. 1999). In a study assessing the effect of a social support program ('befriending') on depressed women from a disadvantaged urban area in the United Kingdom, Harris and colleagues (Harris et al. 1999) found that women participating in the program had significantly greater rates of remission from depression. A measure of perceived social support is included in the present study to examine its association with parenting status and mental health.

The present paper examines the prevalence of mental health problems among single and partnered mothers and the extent to which this relationship is mediated by socio-demographic, financial and social support variables. The analysis controls for a range of background characteristics (such as age, education, employment status), as well as other variables of disadvantage (e.g., physical disability). The key financial measures are equivalised household disposable income and experienced financial hardship. The inclusion of both measures allows comparison of measures of income and financial hardship. The analysis also examines the extent to which social support and financial circumstances moderate the association between parenting status and mental health, as evidenced by statistical interactions between these factors and parenting status when predicting mental health.

Subjects and methods

The Household Income and Labour Dynamics in Australia (HILDA) Survey is a national household-based panel survey that uses a multi-stage sampling approach (sampling households within dwellings within Census Collection Districts; CCDs). The present analysis uses data from the first wave of the survey, conducted in 2001.

Four survey instruments were included in this wave and the measures used in this analysis are drawn from all four sources. The Household Form and Household Questionnaire involved a personal interview with one adult member of each household. The Person Questionnaire, also administered by personal interview, was conducted with all adult (aged 15 years and over) household members. Finally, the Self-Completion Questionnaire was provided to all respondents to the Person Questionnaire and was collected at a later date or returned by post. A total of 7,682 households responded to the survey (a household response rate of 66%). Within households, there were 15,127 eligible adults. Of this group 13,969 (92%) completed the Person Questionnaire and 13,159 (87%) completed and returned the Self-Completion Questionnaire.

The analysis was restricted to female respondents 60 years of age and younger who reported having one or more children younger than 15 years living at home. Those who were not living with a partner (including those separated, divorced, widowed or never legally married) were defined as single mothers ($N = 354$) and those who reported living with a partner (either legally married or defacto) were classified as partnered mothers ($N = 1,689$). As such, the analyses were based on 2,043 respondents, of whom 18% (weighted) were single mothers. The proportion of single mothers is consistent with Australian Bureau of Statistics figures (19%; Australian Bureau of Statistics 2002).

The outcome measures were drawn from the Short-Form (SF) 36. The SF-36 is one of the most widely used self-completion measures of health status, measuring functional health and well-being (Ware and Gandek 1998). It comprises 36 items that measure eight important health concepts or scales. One of the eight scales, the mental health scale, assesses symptoms of depression and anxiety (nervousness and depressed affect) and positive aspects of mental health (feeling calm and happy), has reasonable validity and is an effective screening instrument (Ware and Gandek 1998; see Butterworth and Crosier (2004) regarding validation of the SF-36 in the HILDA Survey). Factor analysis of the eight scales from the SF-36 yields two higher-order orthogonal summary scales, the Mental Component Summary (MCS) score and the Physical Component Summary (PCS) relating to mental and physical well-being, respectively (see Ware et al. 1994). Whereas the mental health scale assesses symptoms and affect in the past four weeks, the MCS scale also reflects limitation across domains of daily living and functioning due to mental health reasons (Sanderson and Andrews 2002).

In recent work, we have demonstrated the validity of the MCS against diagnostic categories of common mental disorders. Higher scores on the MCS and mental health scale represent better mental health. The analyses identify individuals who experience moderate to severe mental health disability, operationalised as a score of less than 40 on the MCS scale (Sanderson and Andrews 2002; estimated 15.8% of Australian population from total HILDA sample) or those with symptoms indicative of mental health problems: a score of 50 or less on the mental health scale (Gill et al. 2006; estimated 9.6% of Australian population from total HILDA sample).

The socio-demographic characteristics examined in the current analysis included:

1. Age (15–24; 25–34; 35–44; 45–60);
2. Number of children (1; 2; 3 or more);
3. Housing tenure (households which rent their home vs. others);
4. Educational level (not completed Year 12 vs. completed Year 12);
5. Employment status (employed; unemployed and actively looking for work; not participating in the labour force);
6. Socio-economic area (derived from the Australian Bureau of Statistics 1996 decile of index of relative socio-economic disadvantage and subsequently categorised into low vs. high socio-economic area); and
7. We consider two different measures of physical health. A measure of physical disability, is based on the Physical Component Summary (PCS) score from the SF-36 categorised as no to mild disability (a score of 40 or higher) or moderate to severe dis-

ability (scores less than 40). We also consider the physical functioning scale of the SF-36, categorising those with scores of 60 or less as having physical health problems.

Two measures of financial circumstance were examined. Equivalised household disposable income was calculated by summing sources of annual income for all household members (using imputed values where necessary, Watson 2004), less taxation liabilities and correcting for the number of adults and children in the household using the OECD equivalence scale (Watson 2004). For the analyses, this variable was categorised into quintiles.

Financial hardship was assessed by seven binary items, which asked whether any of the following events had occurred in the past year because of a shortage of money: could not pay electricity, gas or telephone bills on time; could not pay the mortgage or rent on time; pawned or sold something; went without meals; was unable to heat home; asked for financial help from friends or family; and asked for help from welfare/community organisations.

Our previous analysis of the hardship items included in the HILDA Survey showed they were adequately represented by a single factor, and that no item was substantially more important than others (Butterworth and Crosier, *in press*). Thus, a summary measure representing a simple count of financial hardships represents an appropriate measure of hardship. The financial hardship scale used in these analyses was constructed by summing the seven items (Cronbach's $\alpha = 0.75$), with analysis based on categories (0 instances; 1; 2; 3; and 4 or more instances).

Ten items included in the survey assessed perceived social support on a seven-point scale (1—Strongly disagree to 7—Strongly agree; e.g., *I seem to have a lot of friends; There is someone who can always cheer me up when I'm down; When I need someone to help me out, I can usually find someone*). Exploratory factor analysis of these items identified two factors with eigenvalues greater than 1, though these factors simply differentiated between the positively and negatively worded items. We therefore constructed a single-dimensional scale (reverse coding the negatively worded items) which had adequate reliability (Cronbach's $\alpha = 0.78$). For this analysis we differentiated respondents with high and low levels of social support. Those respondents with an average score across the ten items of less than four (i.e., below the scale midpoint) were categorised as low perceived social support and those with scores greater than or equal to four categorised as high social support.

Contingency tables were used to examine the association between parenting status and the socio-demographic characteristics. A series of univariate and simultaneous logistic regression analyses assessed the association between parenting status, the other explanatory variables and mental disability. In addition to changes in significance, the 'explained fraction' approach (Whitehead et al. 2000) was used to calculate the proportion of the relationship between single parent status and mental disability that is explained by the mediating factors, that is, the socio-demographic, financial and social support variables. It shows the percent reduction in the odds ratios for single parent status, contrasting the OR before (OR_a) and after (OR_b) the addition of the mediating variables, and is calculated by applying the following formula: $(OR_a - 1) - (OR_b - 1) / (OR_a - 1)$.

Statistical analyses were conducted using the SPSS (version 12.01) and STATA (version 7), which took account of the complex clustered and stratified survey design of the HILDA Survey. Weights were used to overcome differential response rates and estimate Australian population parameters.

Results

Data on the socio-demographic, financial and social support circumstances of single and partnered mothers are presented in Table 1. χ^2 tests revealed significant associations (at $P < 0.001$ unless otherwise

Table 1 Socio-demographic characteristics of single and partnered mothers

	Partnered mothers	Single mothers
<i>Sample (n)</i>		
Unweighted	1,689	354
<i>Age (%)***</i>		
15–24	3.7	13.1
25–34	34.6	35.9
35–44	49.1	38.9
45–60	12.5	12.1
<i>Number of children (%)***</i>		
1	22.3	31.6
2	40.8	30.5
3+	36.7	37.9
<i>Housing tenure (%)***</i>		
Renting	19.1	61.6
<i>Education (%)*</i>		
Not completed Year 12	25.9	33.2
<i>Employment status (%)***</i>		
Employed	60.4	45.5
Unemployed	2.7	5.8
Not in the labour force	37	48.7
<i>Socio-economic area (%)***</i>		
Low	41.9	58.3
<i>Physical disability (%)**</i>		
Moderate to severe	8.3	13.2
<i>Household disposable income***</i>		
Lowest quintile	5.6	39.7
2	17.6	36.9
3	26.9	14.7
4	28.6	5.2
Highest quintile	21.3	3.5
<i>Instances of financial hardship (%)***</i>		
0	66.5	29.9
1	15.3	18.1
2	8.9	14.3
3	5.4	16
4+	3.8	21.7
<i>Perceived social support (%)***</i>		
Low	7.6	16.7

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

indicated) between single mother status and each of the characteristics examined. Single mothers were more likely than partnered mothers to live in a low socio-economic area, to have not completed Year 12 ($P < 0.05$), to have been younger in age (15–24) and to have only one child. Single mothers were also more likely to be unemployed and not in the labour force, to be renting, to have lower equivalised household income, to experience greater financial hardship, to experience moderate to severe physical disability ($P < 0.01$) and to perceive low levels of social support.

Figure 1 presents graphically the relationship of the MCS mental disability measure with parenting status, household income and financial hardship. The prevalence of moderate to severe mental disability was more pronounced among single mothers (28.7%) compared with partnered mothers (15.7%) ($P < 0.001$). It is also evident that the measures of income and financial hardship were strongly associated with mental health. Women in the two lowest income quintiles reported much poorer mental health compared with those in the higher income quintiles ($P < 0.001$) and there is a positive linear association

between level of financial hardship and prevalence of moderate to severe mental disability, with almost half of those experiencing four or more instances of financial hardship also reporting mental disability. A similar relationship was evident for the mental health scale (not shown). For example, 7.2% of partnered mothers reported mental health problems compared with 14.2% of single mothers.

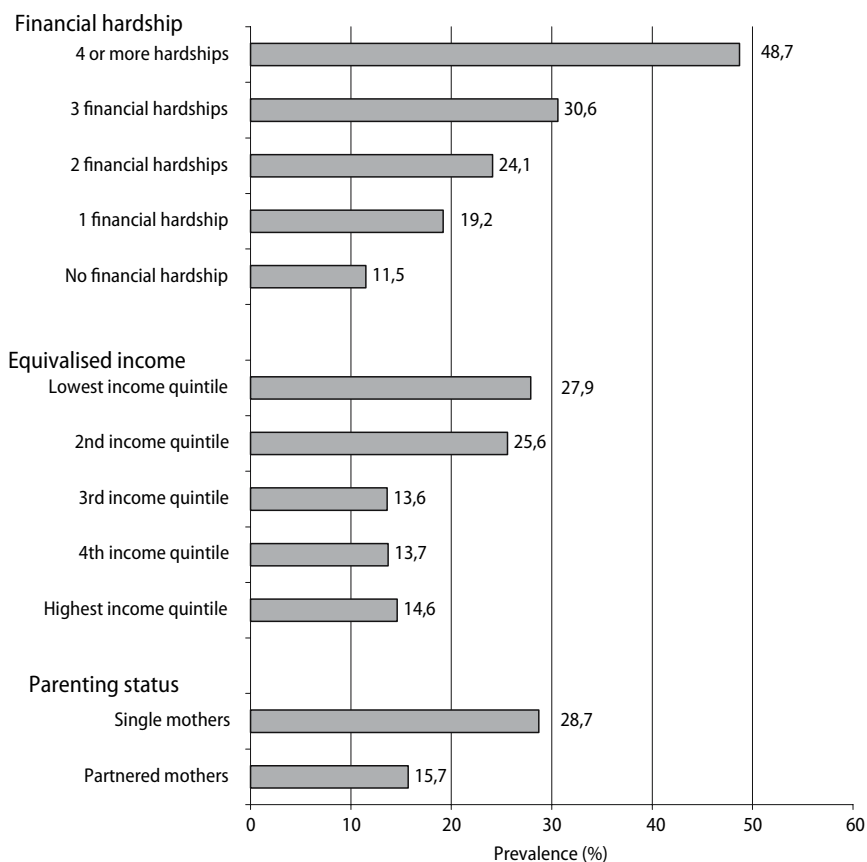
The univariate relationships between moderate to severe mental disability and the measures of single mother status, socio-demographic characteristics, equivalised household disposable income, financial hardship and perceived social support are shown in the left-hand panel of Table 2.

While single mother status was strongly associated with moderate to severe mental disability (odds ratio > 2), stronger associations occurred for 2 or more instances of financial hardship, low levels of perceived social support, being unemployed, being 15–24 years of age, and the lowest equivalised household disposable income quintile. Indeed, the strongest predictor of moderate to severe mental disability was four or more instances of financial hardship (odds ratio = 7.3). Other socio-demographic variables also emerged as significant predictors, although not as strongly as single mother status. These were moderate to severe physical disability, rental housing, not in the labour force, and age categories below the 45–60 year-old reference category.

The results from the simultaneous inclusion of all explanatory factors in the regression analysis are presented in the right-hand panel of Table 2. Only three measures—financial hardship, perceived social support and moderate to severe physical disability—were significant independent predictors of mental disability. Inspection of the odds ratios suggests that experience of four or more instances of financial hardship (OR of 5.5) and low levels of perceived social support (OR of 4.5) were the strongest independent predictors. The odds ratio for moderate to severe physical disability was around 1.5. The non-significant odds ratio for single mother status in the simultaneous model (1.07) indicated that the predictive power of single mother status was accounted for by the other variables in this model.

The extent to which the socio-demographic, equivalised household disposable income, financial hardship and social support measures mediate the relationship between parenting status and moderate to severe mental disability is presented in Table 3. Considered individually, financial hardship accounts for most of the difference between single and partnered mothers in the prevalence of moderate to severe mental disability (77%). The equivalised household disposable income measure accounts for 51%, while the socio-demographic measures and social support measures account for 40% and 24%, respectively. The inclusion of all measures simultaneously (socio-demographic, equivalised household income, finan-

Fig. 1 Prevalence of moderate to severe mental disability (SF-36 mental summary score < 40) as a function of parenting status, equivalised household disposable income and financial hardship



cial hardship and social support) results in a reduction of the odds ratio for single mother status from 2.16 (in the univariate model) to 1.07. All measures therefore account for 94% of the association between single mother status and poor mental health.

Additional analyses compared the independent effect of the financial circumstance variables only (equivalised household disposable income and financial hardship) on mental disability. As revealed in the univariate regression analysis in Table 2, the two lowest income quintiles were strongly associated with moderate to severe mental disability, compared with those in the highest income quintile. With the addition of financial hardship in this analysis, none of the income quintiles remained significant predictors. Rather, all four categories of financial hardship were significantly associated with moderate to severe mental disability (the Wald test of the significance of the financial hardship measure (assessing whether all coefficients were equal to zero) was significant, $F(4,442) = 12.98$, $P < 0.001$), indicating that this variable accounts for the predictive power of the equivalised household income variable.

The simultaneous model was extended to examine two-way interaction effects between parenting status and the measures of perceived social support and the financial variables. Contrary to expectations, perceived social support was not found to significantly moderate the effect of parenting status, financial

hardship, or equivalised household income on mental disability. Further, financial hardship and equivalised household income did not moderate the effect of parenting status.

All analyses were repeated using the mental health scale as the dependent variable (and the physical functioning scale as the measure of physical health). The results were similar, with a pattern of significance identical to that obtained using the MCS as the dependent variable. The only difference observed was a stronger relationship between physical and mental health (in both the univariate and multivariate analyses). This was to be expected given that the physical and mental summary scores were developed to be orthogonal factors. (Results of the analyses involving the mental health scale are available on request).

Discussion

The findings from this analysis are consistent with previous studies showing a greater prevalence of mental health problems among single mothers compared with partnered mothers (e.g., Butterworth 2004; Wang 2004; Hope et al. 1999; Benzeval 1998; McLanahan and Adams 1987; Targosz et al. 2003). It shows that nearly twice as many single mothers experienced moderate to severe mental disability compared with partnered mothers.

Table 2 Univariate and simultaneous logistic regression analyses for moderate to severe mental disability as a function of single mother status and socio-demographic, financial and social support measures

	OR for moderate to severe mental disability	
	Univariate odds ratio (95% CI)	Simultaneous odds ratio (95% CI)
Single mother status ^a	2.16 (1.64–2.86) ***	1.07 (0.74–1.56)
Socio-demographic		
Age ^b		
15–24	2.77 (1.44–5.34) **	1.13 (0.52–2.45)
25–34	1.40 (0.90–2.18)	1.04 (0.64–1.69)
35–44	1.24 (0.80–1.93)	1.21 (0.76–1.72)
Number of children ^c		
2	0.92 (0.67–1.25)	1.11 (0.78–1.56)
3	0.82 (0.60–1.12)	0.78 (0.53–1.15)
Rental housing ^d	1.96 (1.50–2.57) ***	0.99 (0.70–1.40)
Not completed Year 12 ^e	1.01 (0.78–1.31)	0.89 (0.66–1.21)
Employment status ^f		
Unemployed	2.94 (1.61–5.36) ***	1.67 (0.88–3.19)
Not in the labour force	1.33 (1.03–1.70) *	1.01 (0.76–1.36)
Low SES area ^g	1.05 (0.83–1.33)	0.85 (0.65–1.12)
Moderate to severe physical disability ^h	1.93 (1.32–2.82) **	1.53 (0.99–2.34) *
Household disposable income ⁱ		
Lowest quintile	2.26 (1.48–3.44) ***	0.96 (0.56–1.65)
2	2.00 (1.39–2.89) ***	1.18 (0.76–1.83)
3	0.92 (0.61–1.38)	0.67 (0.44–1.03)
4	0.93 (0.60–1.42)	0.83 (0.53–1.31)
Instances of Financial hardship ^j		
1	1.82 (1.26–2.64) **	1.74 (1.16–2.61) **
2	2.43 (1.67–3.55) ***	2.37 (1.53–3.67) ***
3	3.39 (2.22–5.17) ***	3.15 (1.94–5.11) ***
4+	7.31 (4.81–11.09) ***	5.53 (3.31–9.23) ***
Perceived social support ^k		
Low	5.46 (3.83–7.79) ***	4.54 (3.09–6.67) ***

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

^a Reference category: Partnered mothers

^b Reference category: 45–60

^c Reference category: 1 child

^d Reference category: Not renting

^e Reference category: Completed Year 12

^f Reference category: Employed

^g Reference category: High SES area

^h Reference category: None to mild physical disability

ⁱ Reference category: Highest quintile

^j Reference category: No instances of financial hardship

^k Reference category: High levels of perceived social support

Table 3 Fraction of the difference between single and partnered mothers in the prevalence of mental disability mediated by socio-demographic, financial and social support measures

Mediating variable	Moderate to severe mental disability (%)
Socio-demographic only (demographic)	40
Household disposable income only (income)	51
Social support only (support)	24
Financial hardship only (hardship)	77
Demographic, income, support, hardship	94

An advantage of the present analysis is the inclusion of comprehensive measures of income and financial hardship, as well as a measure of social support. Compared with partnered mothers, single mothers were seven times more likely to report being in the lowest equivalised household disposable income quintile and were nearly six times as likely to report four or more instances of financial hardship over the past year (Table 1). In addition, more than

twice as many single mothers perceived low levels of social support compared with partnered mothers. This confirms the relative economic and social disadvantages experienced by single mothers.

High levels of financial hardship were associated with greater prevalence of moderate to severe mental disability. However, the relationship between equivalised household income and mental disability was less pronounced. While those in the two lowest income quintiles had significantly elevated levels of mental disability, prevalence rates across the three higher income quintiles were similar, suggestive of a threshold effect. Perceived lack of social support was also associated with moderate to severe mental disability.

The mediational analysis explored the extent to which these characteristics could account for the poorer mental health of single mothers. The results revealed that perceived lack of social support and, in particular, financial hardship accounted for most of the difference in mental disability between single and partnered mothers.

The analyses assessed both the MCS and the mental health subscale from the SF-36 as outcome measures. There is increasing recognition of the importance of considering the disability associated with mental illness (e.g., Sanderson and Andrews 2002). The MCS identifies individuals experiencing mental health symptoms that have a significant impact on functioning and activities of daily living, and is thus of particular relevance for research concerned with policy development (Henderson et al. 2001). The fact that we obtained similar results for the mental health subscale, which is a more traditional symptom scale, suggests that the effects are not simply an artefact of the MCS scoring procedures.

When considered as a block of variables, the socio-demographic characteristics were significant mediators of the relationship between lone parent status and mental health, with the explained fraction results very similar to those reported by Butterworth (2004) using a different dataset. Nonetheless, only one measure—moderate to severe physical disability—remained significant in the simultaneous model. This is not surprising given the high rate of co-occurrence between physical and mental health problems (Australian Bureau of Statistics 1998). However, as revealed by the simultaneous regression analysis and the mediational analyses, the inclusion of the socio-demographic and equivalised household income variables contributed only marginally to the explanation of the difference in mental disability between single and partnered mothers over and above that explained by financial hardship and social support. This suggests that the joint effect of financial hardship and social support accounts for most of the predictive power of the socio-demographic and equivalised household income variables.

We found no evidence of an interaction between lone parent status and financial hardship. Single mothers were much more likely to experience financial hardship than partnered mothers. However, there was no evidence that the relationship between partnered status and mental health differed as a function of financial circumstances. That is, amongst those who had experienced financial hardship and likewise amongst those who had not, lone mothers reported poorer mental health than partnered mothers. At first glance this seems inconsistent with previous research findings. Wang's (2004) stratified analysis found that, amongst respondents not reporting financial hardship, single mothers had significantly poorer mental health (depressive syndrome) than married mothers. The difference between single and partnered mothers was much less pronounced and non-significant amongst those experiencing financial hardship (see also Brown and Moran 1997). However, despite the difference in the significance of these separate simple main effect analyses, Wang also reported that a test of the difference between these stratum-specific ORs was not significant. Thus, our findings are consistent with

those of Wang, while also demonstrating the importance of financial hardship as a mediator of the relationship between partner status and mental health.

The study also found no evidence that social support moderated the effect of lone parent status or financial circumstances on mental disability. As such, these findings do not support hypotheses that high levels of perceived social support have a protective or buffering effect. This is unexpected given the success of interventions that have targeted this group (e.g., Harris et al. 1999). In future research, we intend to investigate further the measurement of social support, including the quality of such support, which previous research suggests may be a critical factor (Reading and Reynolds 2001).

Unlike previous studies which have considered diagnostic disorders (e.g., Butterworth 2004), our analysis focused on disability. Thus, while we report lower prevalence rates than studies using diagnostic measures, the criterion used is more severe (i.e., impact on activities of daily living; see Henderson et al. 2001 for discussion) and more indicative of differences with policy implications.

This analysis has limitations. The data were cross-sectional in nature, thereby limiting conclusions about the direction of relationships. In addition, the data set did not include some measures known to be significantly associated with poor mental health in single mothers, specifically experience of physical and sexual violence (Butterworth 2004). Most critically, we could not assess the extent to which the measures available may have been markers of more entrenched and long-term disadvantage.

Understanding the causal mechanisms of mental health problems among single mothers is important for informing policy development. While the cross-sectional nature of the data limit the extent to which conclusions about causation can be made, the nature of the findings suggest some possible policy implications. Given the importance of financial hardship as an explanatory factor of mental health problems, an effective policy solution may be to target solution-oriented coping strategies to single mothers, such as financial management interventions.

Conclusion

This analysis has confirmed that single mothers are more likely to experience poor mental health than partnered mothers, and that the primary factors associated with this are the presence of financial hardship, as well as perceived lack of social support. As single parent families constitute a substantial proportion of family types in Australia, these findings highlight a significant issue within Australian society that could adversely affect many women and children. Mental health is not only a public health issue but also a major social issue affecting many families and

should be considered in the development of mainstream social policy. In future research we plan to examine the extent to which changes in financial hardship among different family types relate to changes in mental health over time. We also plan to examine variables that may moderate the relationship between social disadvantage and poor mental health, including social support, relationship breakdown and self-efficacy, with a view to informing the development of policy interventions.

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