ATTACHMENT RG 10

This is the attachment marked "**RG 10**" referred to in the witness statement of Rebecca Giallo dated 7th July2015.

Clinical Psychologist

APS Australian Psychological Society

Psychological distress of fathers attending an Australian early parenting service for early parenting difficulties

Rebecca GIALLO,[1] Amanda COOKLIN,[1] Nikki ZERMAN[2] and Renzo VITTORINO[2]

[1]Parenting Research Centre, East Melbourne, and [2]Tweddle Child and Family Health Service, Melbourne, Victoria, Australia

Abstract

Background: Early parenting centres are in a unique position to identify and provide support to fathers experiencing mental health difficulties. However, the extent to which fathers attending these services experience mental health difficulties is not known. This study aimed to assess fathers' mental health, identify specific clinical profiles based on the severity and pattern of self-reported symptoms of depression, stress, anxiety, and fatigue and identify factors associated with poorer mental health.
Methods: Participants were 144 fathers admitted to a residential programme. Socio-demographic information and symptoms of depression, anxiety, stress, and fatigue were collected using standardised instruments.
Results: The proportion of fathers reporting distress in the clinical ranges for stress, anxiety, and depression were 17%, 6%, and 9%, respectively. Latent class analysis identified two distinct groups or clinical profiles of fathers, representing mild (84%) and high distress (16%). Poor physical health, severity of child's sleep disruption, low socio-economic position, and poor self-care were associated with high distress.
Conclusions: Fathers attending early parenting services are at risk of experiencing significant levels of distress, anxiety, stress, and fatigue. Early Parenting Services can play a critical role in screening and identifying fathers experiencing poor mental health and link them into appropriate mental health support.

Key Points

1 Early parenting centres (EPCs) in Australia are uniquely placed to routinely screen, identify, and support fathers who are experiencing mental health difficulties during early parenting.

2 While a the majority of fathers in one EPC reported mild or moderate distress, 16% of fathers reported elevated symptoms of depression, anxiety, stress, and fatigue. Fatigue and stress symptoms were common, highlighting the need for assessment of broad range of symptoms rather than assessment of depressive symptoms alone.

3 Suggested opportunities for intervention and support for fathers include optimising fathers' health, help-seeking and self-care behaviours, and infant sleep and settling interventions.

The postnatal and early childhood periods are times when fathers are at heightened risk of mental health difficulties, yet many go untreated as they rarely access professional support. Organisations providing services to families during the early childhood period are in an ideal position to identify fathers at risk of, or experiencing mental health difficulties such as depression, anxiety, and stress. Early parenting centres (EPCs) in Australia are an example of one such service. However, the extent to which fathers attending EPCs experience mental health difficulties is not well known. Using data from routine mental health screening of parents at one EPC, the current study sought to address gaps in knowledge about the nature and severity of mental health difficulties for fathers attending EPCs and the factors associated with these experiences.

Estimates of depression range from 1–25% for fathers in the general population (Goodman, 2004; Paulson, Dauber, & Leiferman, 2006; Ramchandani, Stein, Evans, & O'Connor, 2005). A meta-analysis of 43 studies on

fathers' postnatal depression reported a meta-estimate of 10.4% (Paulson & Bazemore, 2010), comparable with the rate of postnatal depression in mothers (13%, O'Hara & Swain, 1996). For anxiety disorders, estimates range from 10–17% (Ballard, Davis, Cullen, Mohan, & Dean, 1994; Matthey, Barnett, Howie, & Kavanagh, 2003). Recently, in a national sample of 3,471 Australian fathers, 9% reported significant psychological distress in the first postnatal year (Giallo et al., in press). Approximately 30% of these fathers continued to report a similar level or worse across the early childhood period when their children were 2–5 years of age, underscoring the importance of early identification and support.

This is particularly critical given the potential adverse effects on fathers' health, their couple relationship, and their children's development. Studies have shown that paternal depression is associated with co-morbidity among couples (Goodman, 2004; Paulson & Bazemore, 2010), decreased relationship satisfaction (Ballard et al., 1994), and children's developmental and well-being difficulties in both the short and long term (Ballard et al., 1994; Mensah & Kiernan, 2009; Ramchandani et al., 2005, 2008). In a recent study of 2,025 fathers participating in a population-based longitudinal study, postnatal distress was associated with children's emotional-behavioural difficulties when they were aged five, even after accounting for fathers' concurrent mental health as well as mothers' postnatal mental health (Giallo, Cooklin, Wade, D'Esposito, & Nicholson, 2011a). The relationship was mediated by parental self-efficacy across the early childhood period and parenting behaviour (e.g., irritability and warmth) when the children were aged five. These findings suggest that the postnatal period is a critical time for the development of fathers' competence in their parenting role and later parenting behaviour, which in turn can have long-term adverse effects on their children's well-being.

Despite the importance of early postnatal support, the vast majority of fathers experiencing mental health difficulties will remain unidentified and untreated. It is well documented that men access health services less frequently than women (Smith, Braunack-Mayer, & Wittert, 2006). Men are also more likely to access support for physical health concerns than for emotional health problems (Schofield, Connell, Walker, Wood, & Butland, 2000) and tend to delay accessing professional support for mental health problems (Smith et al., 2006). Cultural norms, attitudes about masculinity and the need for men to be strong in managing their emotions, and learned behaviours that do not support health seeking have been cited as common reasons for why men tend to underutilise health services (Smith et al., 2006). Not knowing where to get support has been reported by men as a reason for not accessing support for mental health concerns (Thompson, Hunt, & Issakidis, 2004). In addition, postnatal health services have traditionally focused on supporting infants and their mother (e.g., maternal and child health services).

During early parenting, both mothers and fathers are likely to be in more frequent contact with health services—general practitioners, maternity services, and maternal and child health for example. EPCs are one such service providing support to parents during this stage and are thus uniquely placed to identify fathers with poor mental health. There are six publicly funded EPCs in Australia for parents of young children (0–4 years) that provide a residential programme offering parenting support and education for a range of early parenting difficulties (e.g., sleep, settling, feeding, and behaviour problems). Parents are primarily self-referred; however, referrals can be made by other health professionals. There is an intake or triage process undertaken by a health professional to determine eligibility for the service and to prioritise bookings. Priority for the service is typically for families experiencing severe and persistent early parenting difficulties which are having a significant impact on the child, parent, and family. Families experiencing vulnerable social and family contextual circumstances such as lack of social support, concurrent life stress, financial hardship, and poor parent mental health are also given priority. During a residential stay at Tweddle Child and Family Service, support is tailored to parents' individual needs and provided by an interdisciplinary team of registered nurses, maternal and child health nurses, midwives, early childhood practitioners, psychologists, and social workers.

Psychology services have been introduced in some EPCs in acknowledgement of the significant body of research indicating that all parents of children with sleep and settling issues are at an increased risk of mental health difficulties such as stress, fatigue, and depression (Bayer, Hiscock, Hampton, & Wake, 2007), with 30–47% of mothers attending EPCs reporting clinically significant depression or anxiety (Fisher, Feekery, & Rowe-Murray, 2002; Phillips, Sharpe, & Matthey, 2007). In recognition of the critical role of EPCs, Tweddle introduced routine mental health screening of fathers attending their residential programmes, as the extent to which fathers experience psychological distress has not been well described. Given that fathers tend to under-report depressive symptoms (Condon, Boyce, & Corkindale, 2004; Matthey, Barnett, Ungerer, & Waters, 2000), Tweddle adopted an approach that assessed symptoms of anxiety and stress in addition to depression (Matthey et al., 2000). The routinely collected data also assessed other lifestyle and contextual factors which may contribute to fathers'

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well-being difficulties such as quality of sleep, extent to which child sleep is a problem, sense of competence in parenting, and engagement in health behaviours.

Without a clear understanding of the nature, extent, and complexity of the problem, it is hard to advocate for prioritising the identification and support for the mental health of fathers at EPCs. Therefore, the aims of the study were to: (1) report on the extent to which fathers experience symptoms of depression, anxiety, stress, and fatigue, (2) identify whether, based on severity and pattern of self-reported symptoms of depression, anxiety, stress, and fatigue, there were different subgroups or presenting "clinical profiles" of fathers, and (3) identify socio-demographic and lifestyle behaviours associated with mental health symptoms and the identified clinical profiles.

Method

Participants and Setting

All fathers of infants and children (aged 0–4 years) attending a 4-day residential stay at Tweddle between October 2010 to July 2011 were invited to complete a survey on their health and well-being. Of the 232 fathers who attended during this time, 144 (62%) completed the survey. Table 1 outlines the demographic characteristics of the sample. The majority of fathers were in a couple relationships, spoke English, and were in full-time employment.

Measures

Demographics and Family Background

Information about father age, marital status, education, employment status, age, and gender of the focus child with sleep difficulties and other children in the family was collected.

The Depression Anxiety Stress Scale-21 (DASS-21)

The DASS-21 (Lovibond & Lovibond, 1995) assesses the negative emotional states of depression, anxiety, and tension or stress over the past week. Seven items for each subscale representing depression, anxiety and stress are rated on a 4-point scale ranging from 0—Does not apply to me at all to 3—Does apply to me very much or most of the time. Data for the present sample were compared with recently published normative data for an Australian sample of 497 adults (Crawford, Cayley, Lovibond, Wilson, & Hartley, 2011). Cut-off values to classify individuals into severity rating categories as instructed by the

Table 1 Sample characteristics (*N* = 144)

Variable	*n* (%)
Father age (*M*, *SD*)	34.4 years (6.48)
	Range 17–69 years
Family type	
Couple	140 (97.9%)
Single-parent family	1 (0.7%)
Not reported	3 (2.1%)
Language spoken	
English only	127 (88.2%)
Other	9 (6.3%)
Not reported	8 (5.6%)
Employment status	
Employed full-time	107 (74.3%)
Employed part-time	4 (2.8%)
Not in paid employment	8 (5.6%)
Not reported	25 (17.4%)
Highest level of education completed	
Some high school	5 (3.5%)
Completed high school	7 (4.9%)
TAFE, trade, certificate, diploma	27 (18.8%)
Tertiary (degree, post-graduate degree)	31 (21.5%)
Not reported	74 (51.4%)
SEIFA—Index of Relative Socioeconomic Disadvantage *(M, SD)*	995.54 (60.32)
Number of children in the family *(M, SD)*	1.4 (0.59)
Number of children with a sleep, settling, or feeding problem *(M, SD)*	1.19 (0.46)
Professional mental health supports	
None	105 (72.9%)
One or more	18 (12.5%)
Not reported	21 (14.6%)

M, mean; *SD*, standard deviation; TAFE, Technical and Further Education; SEIFA, Socio-Economic Indexes for Areas.

manual (Lovibond & Lovibond, 1995) were also used in the present study. Cronbach's α for the current sample was 0.81, 0.70, and 0.83 for the depression, anxiety, and stress subscales respectively.

Fatigue

Fatigue was assessed by a single item routinely used by Tweddle. Fathers were asked to rate the extent to which they were exhausted on a 5-point scale ranging from 1 = Not at all to 5 = Extremely.

Sleep Quality

A single item measuring subjective sleep quality in the past month was taken from the Pittsburgh Sleep Quality Index (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989), a well-established self-report measure of sleep with excellent psychometric properties. Fathers were

asked to rate the overall quality of their sleep on a 5-point scale ranging from 1 = Poor to 5 = Excellent.

Health and Self-care Behaviour

This scale was developed for the purpose of this study and consists of three items asking fathers to rate the quality of their diet and level of physical activity, and the extent to which they engage in self-care behaviours such as relaxation, taking time out, and pursing hobbies on a 5-point Likert scale ranging from 0—poor to 4—excellent.

Severity of Child Sleep Problem

Fathers were asked to rate the extent to which their child's sleep has been a problem for them in the last 4 weeks on a 7-point scale ranging from 1 = Hardly a problem at all to 7 = A severe problem.

Professional Mental Health Supports

Fathers were asked to indicate if they were receiving support for mental health issues from a professional such as a psychologist, psychiatrist, or social worker.

The Edinburgh Postnatal Depression Scale (EPDS)

The EPDS (Cox, Holden, & Sagovsky, 1987) was used to assess maternal mental health. Items on the 10-item screening tool are rated on a 4-point scale, with higher scores indicating more depressive symptoms.

Socioeconomic Status

Australian Bureau of Statistics, Socio-Economic Indexes for Areas (Trewin, 2003) The Index of Relative Socioeconomic Disadvantage was used to identify families' socioeconomic status based on their postal code. This index is derived from 2001 population census data pertaining to low income, low educational attainment, and high unemployment. Higher scores reflect an area of relatively better economic status. For the geographical areas in Victoria, the mean value is 1,020.00.

Procedure

Ethical approval to access the de-identified data routinely collected by Tweddle was obtained from the Parenting Research Centre Human Research Ethics Committee. All fathers admitted to the 4-day residential stay were invited to complete the screening tool on their first day of admission. They were also given a consent form stating that information collected during their stay may be used

for research purposes but individuals would not be identified. All surveys collected were reviewed by a psychologist, who offered a brief psychological consultation to fathers who scored in the clinical ranges of the DASS-21.

Data Analysis

Latent class analysis (LCA) was performed to identify clinical profiles or distinct groups of fathers based upon the severity and pattern of their DASS subscale scores for depression, anxiety, and stress, as well as the single item assessing fatigue using MPlus Version 6 (Muthen & Muthen, 1998–2011). The goal is to identify the smallest number of classes that adequately describe these associations starting with a parsimonious 1-class model and fitting successive models with increasing numbers of classes. Model solutions were evaluated based on Likelihood-ratio statistic (L^2), Bayesian Information Criterion (BIC), Akaike Information Criterion (AIC), and entropy. Better fitting models have lower L^2, BIC, and AIC values, whilst high entropy values indicate greater precision of assigning latent class membership. Correlations and multivariate regression analysis were conducted to assess factors associated with symptoms of depression, anxiety, stress, and fatigue and identify factors predicting latent class membership.

Results

Data Screening

All cases had data on the DASS-21, but 74 cases had some missing data on fatigue, parental self-efficacy, quality of health, diet, and exercise. The missing data were due to an error with the printing of the questionnaire for use at the EPC which excluded these items. There were no significant differences on demographic characteristics and mental health variables between those with complete and missing data. The K-S Lilliefor's tests of normality and graphical normality plots indicated that distributions on the Depression and Anxiety subscales of the DASS-21 were skewed ($p < .001$). We explored the possibility of using transformed variables; however, the transformed data also deviated from normality.

Depression, Anxiety, Stress, and Fatigue among Fathers

Descriptive statistics are presented in Table 2. One-sample *t*-tests were used to compare fathers' DASS subscale scores with available Australian normative data (Crawford et al., 2011). Combined normative data for males and females were used as there were no significant

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Table 2 Descriptive statistics for the current sample and normative data on the DASS-21

	Current Sample (*N* = 144)			Normative Data (*N* = 497)		*t*	Cohen's *d* (95% CI)
	Range	*M*	*SD*	*M*	*SD*		
Depression	0–28	4.90	5.57	5.02	7.54	−0.25	−0.02 [−0.20–0.17]
Anxiety	0–24	2.71	4.22	3.36	5.07	−1.85	−0.13 [−0.32–0.05]
Stress	0–38	11.57	7.91	8.10	8.40	5.27***	0.42 [0.23–0.60]

***p < .001.
CI, confidence interval; DASS-21, Depression Anxiety Stress Scale-21; *SD*, standard deviation.

gender differences were found. There were no signifi-cance differences on the Depression subscale; however, fathers in the present study had significantly higher mean scores on the Stress subscale than the normative sample (p < .001). Differences on the Anxiety subscale were approaching significance (p = .066).

Table 3 presents the percentage of fathers in the Normal, Mild, Moderate, Severe, and Extremely Severe ranges on each of the DASS-21 subscales. The majority of fathers scored in the Normal range on all subscale, while the proportions of fathers scoring in the Moderate to Extremely Severe ranges for Depression, Anxiety, and Stress were 9%, 6%, 17%, respectively.

With respect to fatigue, the mean score was 3.41 (stan-dard deviation = 0.96, Range = 0–5), indicating moderate levels of fatigue. Approximately, 13% of fathers reported that they were "extremely" exhausted, 67% were "quite a bit" to "moderately" exhausted, and 19% were "a little" or "not at all tired." Finally, approximately 6% of fathers reported suicidal or self-harm ideation "some of the time" (4.2%) or "a good part of the time" (1.4%).

Clinical Profiles of Fathers

LCA was conducted to identify distinct groups of fathers on the basis of the severity and pattern of their self-reported symptoms of depression, anxiety, stress, and fatigue. LCAs specifying 1–4 classes were conducted and the goodness of fit indexes are presented in Table 4. Although the 3-class model was the best fitting model,

the final class counts and proportions revealed that the third class was comprised of four fathers, representing only 3% of the sample. The 2-class model was accepted as the final model, with high entropy value (0.928).

Table 5 presents the class count, proportions, and assignment probabilities for the 2-class model. The majority of fathers were assigned to Class 1 characterised by lower scores on depression, anxiety, and stress than fathers assigned to Class 2. Fatigue scores were similar for both classes, however, the item response probabilities indicate that the majority of fathers in Class 1 endorsed that they were "moderately" or "quite a bit" fatigued, whilst the majority fathers in Class 2 endorsed that they

Table 4 Model fit indexes for latent classes of mental health symptoms

Class	L²	BIC	AIC	Entropy
1-class	−1548.312	3146.232	3116.625	n/a
2-class	−1465.122	3019.702	2966.245	0.928
3-class	−1408.577	2946.37	2869.154	0.949
4-class	−1388.114	2945.202	2844.228	0.861

AIC, Akaike Information Criterion; BIC, Bayesian Information Criterion; L², Likelihood-ratio statistic; n/a, not available.

Table 5 Results of the latent class analysis for a 2-class model (*N* = 144)

	Class 1	Class 2
	Mild distress	High distress
Class membership count and proportion	121 (84%)	23 (16%)
Class assignment probabilities	0.99	0.96
Depression (*M*, *SD*)	3.06 (3.61)	14.24 (3.61)
Anxiety (*M*, *SD*)	1.54 (3.28)	8.64 (3.28)
Stress (*M*, *SD*)	9.38 (6.14)	22.70 (6.14)
Fatigue (*M*, *SD*)	3.19 (0.83)	4.02 (0.83)
Not at all (*p*, *SE*)	0.01 (0.01)	0.00 (0.00)
A little (*p*, *SE*)	0.18 (0.04)	0.00 (0.00)
Moderately (*p*, *SE*)	0.48 (0.05)	0.31 (0.10)
Quite a bit (*p*, *SE*)	0.26 (0.04)	0.35 (0.11)
Extremely (*p*, *SE*)	0.07 (0.03)	0.34 (0.11)

M, mean; *SD*, standard deviation; *p*, probability; *SE*, standard error.

Table 3 Percentage of fathers in the normal and clinical ranges on the Depression Anxiety Stress Scale-21 (*N* = 144)

Range	Depression	Anxiety	Stress
		n (%)	
Normal	116 (80.6%)	127 (88.2%)	102 (70.8%)
Mild	15 (10.4%)	8 (5.6%)	17 (11.8%)
Moderate	11 (7.6%)	5 (3.5%)	17 (11.8%)
Severe	1 (0.7%)	1 (0.7%)	6 (4.2%)
Extremely severe	1 (0.7%)	3 (2.1%)	2 (1.4%)

were "quite a bit" to "extremely fatigued." Class 1 was referred to Mild Distress and Class 2 referred to as High Distress.

Factors Associated with Depression, Anxiety, Stress, and Fatigue

The factors associated with depression, anxiety, stress, and fatigue symptoms were identified. Bivariate analyses (e.g., Pearson's r correlations for continuous variables, Spearman's rho for ordinal variables, and point-biserial correlations for dichotomised variables) are presented in Table 6. Variables with a significant univariate relationship with fathers' distress symptoms included lower socio-economic status, less engagement in self-care behaviour, accessing mental health support, and poor quality diet, exercise, sleep, and overall health (Table 4). Combined in a multivariate regression model ($R^2 = 0.20$, $F(5, 65) = 2.35$, $p = .019$), none of the predictor variables provided a significant amount of unique predictive variability in the final model.

The only variable significantly associated with anxiety symptoms was poor overall health quality ($R^2 = 0.12$,

$F(1, 68) = 1.65$, $p = .10$; $\beta = -0.35$, $t = -3.90$, $p = .001$). In the regression analyses ($R^2 = 0.36$, $F(6, 64) = 3.86$, $p < .001$), the following remained significant predictors of stress: severity of child sleep problem ($\beta = 0.29$, $t = 2.50$, $p = .013$) and accessing professional mental health supports ($\beta = 0.22$, $t = 2.31$, $p = .021$).

Finally, fatigue was associated with increased severity of child sleep problem, less engagement in self-care behaviour, and poor sleep quality. In the regression analysis ($R^2 = 0.31$, $F(3, 67) = 3.35$, $p = .001$), the only factor which provided a significant amount of unique predictive variability in the final model was the severity of the child sleep problem ($\beta = 0.35$, $t = 3.04$, $p = .002$).

Factors Associated with Clinical Profiles

Finally, the factors associated with the two clinical profiles from the LCA were identified. This analysis was conducted with a subset of 70 cases for which complete data on the potential predictor variables were available, using the assignment of classes established in the LCA analysis. There were 55 (79%) fathers in Class 1 (Mild Distress) and 15 (21%) in Class 2 (High Distress).

Table 6 Correlations between parental depression, anxiety, stress, and fatigue and potential predictor variables ($N = 70$)

	M(SD)/n (%)	Depression	Anxiety	Stress	Fatigue
Father age	34.01 (5.19)	−0.12	−0.06	−0.05	−0.01
Highest educational attainment					
High school, TAFE, or trade certificate	39 (55.7%)	−0.10	0.12	−0.02	−0.01
Tertiary education	31 (44.3%)				
Employment					
Employed—full & part-time	65 (92.9%)	0.07	−0.09	0.03	−0.03
Not in paid employment	5 (7.1%)				
Socio-economic status[a]	799.0 (60.32)	−0.28*	−0.15	−0.15	−0.14
Language spoken—English only	64 (91.4%)	−0.03	−0.03	−0.03	−0.03
Number of children in family					
One	47 (67.1%)	−0.15	−0.15	−0.10	0.01
More than one	23 (32.9%)				
Number of children with a sleep problem					
One	56 (80%)	−0.12	−0.11	0.02	0.15
More than one	14 (32.9%)				
Severity of child sleep problem	4.94 (1.51)	0.28	0.21	0.48***	0.55***
Engagement in self-care behaviour	2.56 (1.09)	−0.45***	−0.14	−0.48***	−0.33**
Quality of diet	3.23 (0.84)	−0.35**	−0.12	−0.18	−0.01
Quality of exercise	2.97 (1.12)	−0.32**	−0.22	−0.37**	−0.21
Sleep quality	2.30 (0.92)	−0.23	−0.01	−0.38**	−0.49***
Overall quality of health	3.57 (0.86)	−0.37**	−0.27*	−0.25*	−0.01
Professional mental health supports					
No support	62 (88.6%)	0.30*	0.21	0.28*	0.23
Accessing support	8 (11.4%)				
Maternal depression	11.19 (4.87)	0.01	−0.08	0.11	−0.05

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.
[a]SEIFA Index of Social Disadvantage.
M, mean; SD, standard deviation; SEIFA, Socio-Economic Indexes for Areas; TAFE, Technical and Further Education.

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Table 7 Descriptive statistics for potential predictor variables, bivariate and multivariable associations with latent class

Potential predictor variables	M (SD) or n (%)	Bivariate results β	Multivariate results β
Father age	34.01 (5.19)	−0.25	—
Highest educational attainment			
High school, TAFE, or trade certificate	39 (55.7%)	−0.17	—
Tertiary education	31 (44.3%)		
Employment			
Employed—full & part-time	65 (92.9%)	0.15	—
Not in paid employment	5 (7.1%)		
Socio-economic status[a]	799.0 (60.32)	−0.27	0.14
Language spoken—English only	64 (91.4%)	0.11	—
Number of children in family			
One	47 (67.1%)	−0.22	—
More than one	23 (32.9%)		
Number of children with a sleep problem			
One	56 (80%)	−0.13	—
More than one	14 (32.9%)		
Severity of child sleep problem	4.94 (1.51)	0.37*	0.22
Engagement in self-care behaviour	2.56 (1.09)	−0.30	−0.13
Quality of diet	3.23 (0.84)	−0.35	0.06
Quality of exercise	2.97 (1.12)	−0.29	0.05
Sleep quality	2.30 (0.92)	−0.26	—
Overall quality of health	3.57 (0.86)	−0.53*	0.39*
Professional mental health supports			
No support	62 (88.6%)	0.17	—
Accessing support	8 (11.4%)		
Maternal depression	11.19 (4.87)	0.02	—

*$p < 0.05$, **$p < 0.01$.
[a]SEIFA Index of Social Disadvantage.
M, mean; *SD*, standard deviation; SEIFA, Socio-Economic Indexes for Areas; TAFE, Technical and Further Education.

At the bivariate level (Table 7), poorer overall quality of health ($p = .013$) and a greater severity of child sleep problem ($p = .041$) were significantly associated with the High Distress group. The following variables were approaching significance: low socio-economic status ($p = .062$), quality of exercise ($p = .067$), engagement in self-care behaviour ($p = .085$), and quality of diet ($p = .094$). Combined in a multivariate regression model ($R^2 = 0.39$, $F(6, 64) = 2.50$, $p = .012$), poor overall health quality ($\beta = −0.40$, $t = −2.11$, $p = .03$) was the only significant factor associated with the High Distress group.

Discussion

This study sought to address the gap in evidence about the extent to which fathers attending EPCs experience mental health difficulties. While the majority of fathers reported high levels of fatigue, the proportions of fathers scoring in the Moderate to Extremely Severe ranges for Depression, Anxiety, and Stress were 9%, 6%, 17%, respectively. This is consistent with estimates of postnatal mental health difficulties for fathers reported in previous studies (Matthey et al., 2003; Paulson & Bazemore, 2010; Giallo et al., in press). Of concern, approximately 6% of fathers considered suicide or self-harm in the last month. Two distinct profiles of fathers based on the severity of their depression, anxiety, stress, and fatigue symptoms were found. The majority of fathers (84%) were in the Mild Distress group characterised by moderate to high fatigue, but fewer symptoms of depression, anxiety, and stress. The High Distress group (16%) reported high levels of depression, anxiety, stress, and fatigue. Taken together, these findings highlight that some level of distress is common among fathers attending EPCs, however, there is a distinct group of fathers at risk of experiencing significant mental health difficulties.

Fathers in the present sample reported significantly higher levels of stress than available normative data. Whilst depressive symptoms have received most attention as a key indicator of distress during the postnatal period, these findings suggest that distress among fathers may be experienced as psychological and physiological tension, agitation, and frustration rather than depressed mood. It is also possible that it is more socially acceptable for fathers to report symptoms of stress than depression, consistent with available evidence that fathers tend to under-report depressive symptoms on self-report measures specifically (Condon et al., 2004). Routine assessment of depressive symptoms alone may result in an underestimation of fathers' psychological distress. Identification and support for stress among fathers is important given that stress is associated with a broad range of health problems and impairments in daily functioning (Lovibond & Lovibond, 1995), and less optimal parent–child interactions (Deater-Deckard & Scarr, 1996).

Fatigue was also reported by the majority of fathers attending the EPC, even those in the Mild Distress group. This was not surprising given that parents typically seek support from EPCs for sleep and settling issues with their children and tend to experience significant disruptions to sleep (Giallo et al., 2011b). Fatigue is a potentially serious health concern for parents, associated with symptoms of depression, anxiety, and stress, as well as increased irritability during parent–child interactions (Cooklin, Giallo, & Rose, in press). Fatigue has also been associated with impaired cognitive functioning among 109 mothers attending a private mother-baby unit (Fisher et al., 2002). Finally, there is some evidence that fatigue is a risk factor for depressive symptoms in the postnatal period

(Bozoky & Corwin, 2002; Corwin, Brownstead, Barton, Heckard, & Morin, 2005). Although research into how fatigue may impact specifically upon fathers is needed, these findings suggest that an assessment of fatigue among fathers attending EPCs is also relevant.

To highlight suggested areas of intervention, factors with independent associations with fathers' stress symptoms were increased severity of child sleep problem and currently accessing professional mental health supports. Similarly, child's sleep problem was also a significant predictor of fatigue. Taken together, these findings reinforce the relevance of child sleep and parenting interventions provided by EPCs, not only for improving child outcomes, but also for potentially reducing fathers' stress and fatigue levels.

Variables not explored in this study are likely to be important predictors of depression and anxiety for fathers. None of the variables we assessed provided a significant amount of unique predictive variability in the multivariate analysis. Similarly, with respect to anxiety symptoms, poor quality of overall health was the only significant predictor, and it is likely that anxiety symptoms such as worry may influence fathers' self-report of their overall health quality. Other contributing factors might include aspects of fathers' circumstances including relationship quality, job quality, and employment characteristics which have recently been identified as risk factors for fathers' psychological distress in a large population-based study of Australian children (Giallo et al., 2011a). Such contextual factors contributing to fathers' distress are typically identified during clinical assessment by a psychologist at the EPC.

In order to assist in the identification of the fathers at risk of very high distress on all symptom measures, we sought to identify factors associated with the High Distress class of fathers. Poor overall quality of health was the only significant factor associated with being in the High Distress group, although increased severity of child sleep problem, low socio-economic status, poor quality of exercise and diet, and limited engagement in self-care behaviour were approaching significance. Although the direction of this relationship cannot be ascertained in a cross-sectional study of this kind, it is likely that a reduced capacity to engage in health-promoting, self-care behaviours, including diet, exercise for example, is both a cause of, and a symptom of the distress and stress reported by these fathers. Interventions to promote engagement in self-care behaviour while supporting their partners and children might reduce fatigue and stress and promote mental health and well-being.

Finally, it is important to note that known risk factors associated with fathers' mental health such as age, education, and maternal mental health were not significantly associated with higher distress symptoms in this sample. This sample is unique and few comparison samples of fathers attending a residential parenting centre exist. It is notable however that these fathers were predominantly partnered, employed, reported English as their main language, and most had attained a post-school qualification, and thus likely to be relatively advantaged compared with all Australian fathers in the postnatal period. The sample too was already seeking assistance through established service pathways and possibly protected from some of the more common contributing factors noted in extant literature. However, these findings warrant further consideration in future research and replication in other similar clinical settings.

Limitations

There are several limitations to this study. First, the sample size and overall response rate for the present study was small. EPCs are typically attended by mothers, and of those fathers who are admitted, many only attend the EPC at night, thereby missing the opportunity to complete the survey or attend workshops or appointments with a mental health professional during the daytime. No demographic information for the fathers who chose not to complete the survey was available from the service. Therefore, it was not possible to determine whether these fathers differed from those who opted to complete the survey. Collaborative research with other EPCs may provide an opportunity to obtain a larger, more representative sample of fathers attending EPCs.

Second, findings are based on fathers' self-report of their distress, and clinical diagnosis of depression or anxiety was not confirmed with a structured clinical interview. Third, the majority of fathers were partnered, and results are not generalisable to single or non-resident fathers. Fourth, a broad range of contextual risk factors associated with fathers' mental health difficulties, such as past history of depression, relationship quality, or employment characteristics, were not assessed. However, fathers who were identified as at risk of significant mental health difficulties were offered a consultation with the psychologist, including a comprehensive clinical assessment of their circumstances. Finally, the current study is based on cross-sectional data, and causality cannot be inferred. It is likely that transactional and complex interrelationships exist among fathers' mental health difficulties factors assessed here.

Implications and Conclusions

Despite its limitations, the current study provides important information about the extent to which fathers

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attending an early parenting service experience mental health difficulties. The majority of fathers experience a mild level of distress (Mild Distress class), and this is somewhat expected given the impact of early parenting difficulties on parent well-being. EPCs are in an ideal position to normalise such well-being experiences and provide psycho-education about health and lifestyle behaviours that may help to manage during this period. EPCs can also play a critical role in identifying fathers at risk of very high depression and anxiety (High Distress class) and in establishing referral pathways to link them into appropriate mental health support in their local communities.

Embedding routine assessment and support for fathers into existing services providing support to children and families such as EPCs is an important step towards ensuring that fathers, as well as mothers, have access to appropriate mental health support in the early parenting years. This is not only important for improving the health and well-being of fathers in the early parenting period but for improving outcomes for their children and the whole family.

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