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The emotional and professional wellbeing of Australian midwives: A comparison between those providing continuity of midwifery care and those not providing continuity

Jennifer Fenwick^{1, 2, 3} RM PhD

Professor of Midwifery & Clinical Chair

j.fenwick@griffith.edu.au

Mary Sidebotham^{1, 2} RM PhD

Associate Professor of Midwifery

m.sidebotham@griffith.edu.au

Jenny Gamble^{1, 2} RM PhD

Professor of Midwifery

j.gamble@griffith.edu.au

Debra K. Creedy^{1, 2} RN PhD

Professor of Perinatal Mental Health

d.creedy@griffith.edu.au

¹ School of Nursing and Midwifery, Griffith University

Logan Campus, University Drive, Meadowbrook, QLD, Australia, 4131.

² Menzies Health Institute Queensland, Griffith University

Griffith Health Centre, Gold Coast Campus, Griffith University, QLD, 4222.

³ Gold Coast University Hospital

1 Hospital Blvd, Southport, QLD, 4215.

Corresponding Author:

Professor Jennifer Fenwick

School of Nursing and Midwifery

Logan Campus, University Drive, Meadowbrook, QLD, Australia, 4131.

+61410479985

ABSTRACT

BACKGROUND: Continuity of midwifery care contributes to significant positive outcomes for women and babies. There is a perception that providing continuity of care may negatively impact on the wellbeing and professional lives of midwives.

AIM: To compare the emotional and professional wellbeing as well as satisfaction with time off and work-life balance of midwives providing continuity of care with midwives not providing continuity.

METHOD: Online survey. Measures included; Copenhagen Burnout Inventory (CBI); Depression, Anxiety and Stress Scale-21; and Perceptions of Empowerment in Midwifery Scale (PEMS-Revised). The sample (n=862) was divided into two groups; midwives working in continuity (n=214) and those not working in continuity (n=648). Mann Whitney U tests were used to compare the groups.

RESULTS: The continuity group had significantly lower scores on each of the burnout subscales (CBI Personal $p=.002$; CBI Work $p<.001$; CBI Client $p<.001$) and Anxiety ($p=.007$) and Depression ($p=.004$) sub-scales. Midwives providing continuity reported significantly higher scores on the PEMs Autonomy/Empowerment subscale ($p<.001$) and the Skills and Resources subscale ($p=.002$). There was no difference between the groups in terms of satisfaction with time off and work-life balance.

CONCLUSION: Our results indicate that providing continuity of midwifery care is also beneficial for midwives. Conversely, midwives working in shift-based models providing fragmented care are at greater risk of psychological distress. Maternity service managers should feel confident that re-orientating care to align with the evidence is likely to improve workforce wellbeing and is a sustainable way forward.

Words: midwives; burnout; depression; anxiety; continuity of midwifery care; caseload care; empowerment

STATEMENT OF SIGNIFICANCE

Problem or Issue	Perceptions of excessive workloads, long hours on-call, professional isolation and difficulty achieving work-life balance have hindered the widespread roll-out of midwifery caseload care.
What is Already Known	Caseload care is a primary, social model of health where the midwife provides continuity of perinatal care. Compelling evidence shows that caseload midwifery care yields significant benefits for mothers and babies.
What this Paper Adds	Australian midwives providing continuity of midwifery care reported lower levels of burnout, depression and anxiety and higher levels of professional identity and autonomy compared to those working in non-continuity models. Re-orientating maternity care to align with the evidence around midwifery continuity and caseload models may improve workforce wellbeing and satisfaction.

INTRODUCTION

There is strong evidence of the benefits of continuity of midwifery care to childbearing women and their babies ¹, and increasing evidence of the advantages it bestows on midwives ²⁻⁴. In the last decade, Australia has introduced government policy, legislation and midwifery education standards ⁵⁻⁹ to drive evidence into practice and promote the re-orientation of maternity services to ensure more women have access to continuity of midwifery care. Despite this, changes to mainstream service delivery and expansion of existing midwifery continuity models remains slow with less than 10% of women reported to have access to a known midwife ¹⁰. In part, some of the resistance to re-orientating services is born out of a commonly voiced perception that providing continuity of midwifery care may negatively impact on midwives' emotional wellbeing ⁴. Despite a lack of empirical evidence excessive workloads, long hours on call, professional isolation and difficulty achieving a work-life balance, potentially contributing to burnout, have been suggested as reasons why maternity organisations should be cautious about supporting the transition of mainstream services towards a midwifery continuity model ^{4,11-14}. Professional discourses of this nature may well be contributing to the inertia around implementing new services providing continuity of care, expansion of existing continuity /caseload practices and sustainability overall ⁴.

Extending our understanding about how providing continuity of care impacts on midwives' professional and personal wellbeing will inform discussion about this issue of concern. In line with some of the earliest published work on this topic (see for example Sandall ^{15,16} and Stevens and McCourt ¹⁷), recent research confirms that midwives providing continuity of care in a caseload model report high levels of professional fulfilment and satisfaction ^{3,4,18}. Having the capacity to develop meaningful relationships with women, working across the full scope

of midwifery practice, experiencing occupational autonomy and flexibility, and acknowledging their ability to make a difference for women have all been identified as reasons why those midwives providing continuity are highly satisfied ^{3,4,14,18-21}.

In contrast to earlier thinking, the flexibility afforded by activity based work patterns inherent in caseload is rated highly by midwives ^{3,18,19}. Australian researchers demonstrated that midwives readily learned how to manage the 'on-call' aspect of continuity of care in relation to workload and their family commitments ³. The result was a better work-life balance ^{3,19}. These findings are also in line with a growing body of work emerging from New Zealand where midwifery continuity delivered in a caseload model is a well-established norm for most women ². Relationships with colleagues, working in partnership with women and having autonomy around workload and work life balance were all key factors that contributed to the satisfaction and sustainability of providing continuity in a caseload model ^{21,22}. More importantly there appears to be mounting evidence that providing midwifery continuity of care to women may be protective of burnout as opposed to a contributor ^{2,4,21,23}.

The study outlined in this paper sought to contribute to the debate about the sustainable organisation of midwifery care by comparing the emotional and professional wellbeing, including satisfaction with time off and work-life balance, of a large number of Australian midwives providing continuity of care with midwives not providing continuity. For the purposes of the paper continuity of care was defined as midwifery care provided by one or two midwives (no more than three) to a defined number of women across the antenatal, intrapartum and post-natal period (commonly referred to as midwifery caseload care).

METHOD

The data reported in this paper were collected as part of the Australian arm of the WHELM study (Work, Health and Emotional Life of Midwives) ²⁴. The overarching aim of WHELM was to explore midwives emotional wellbeing and examine relationships with their work environment. Participants completed an online survey distributed by the Australian College of Midwives to College members and by the researchers through professional networks. The survey consisted of several validated tools including the Copenhagen Burnout Inventory (CBI) ²⁵, Depression, Anxiety and Stress Scale-21 (DASS-21) ²⁶, and Perceptions of Empowerment in Midwifery Scale Revised (PEMS-Revised)²⁷ (summarised in Box 1). Midwives rated their satisfaction with time off and work-life balance (low v high). One thousand and thirty seven surveys were received. Ethical approval was obtained from Griffith University (NRS/39/11/HRC) (see Creedy et al; Hildingsson et al ^{24,28} for more detail about WHELM research design).

Statistical analyses

Data for this study were extracted from the larger WHELM Australian data file. Responses from registered midwives working in a clinical midwifery role are reported. Those midwives employed predominantly in research, education, management or administrative roles were excluded. The sample was divided into two groups (continuity vs non-continuity) separating those midwives who indicated they were working in a 'continuity of midwifery care model' defined as *'providing midwifery care to a woman across the continuum of pregnancy, labour and birth, and the early parenting period'*.

Preliminary analyses compared demographic and work related characteristics of the two groups. Non-parametric statistics were used given the non-normal distribution of scale scores. Chi square tests (for categorical variables) and Mann-Whitney U tests (continuous variables) were conducted along with appropriate effect size statistics. Cohen's criteria were used to evaluate the size of the phi and z coefficients (.1=small effect, .3=medium effect, .5=large effect). Mann Whitney U tests compared groups on their levels of burnout (CBI), emotional wellbeing (DASS-21) and perceptions of empowerment (PEMS-Revised). Given the number of analyses undertaken in this study a more conservative alpha level of $p < .01$ was used to assess statistical significance.

RESULTS

Sample characteristics

The sample consisted of a total of 862 midwives, with 214 (24.8%) working in a continuity of midwifery care model and the remaining 648 (75.2%) working in positions not involving continuity of care. The demographic characteristics of each group are shown in Table 1 and were similar to those of the general midwifery population such as gender, age and marital status²⁹. The national data set, however, does not facilitate comparisons in terms of model of care.

The only difference between groups detected at the adjusted alpha level of $p < .01$ was the size of city/town ($p < .001$). This difference recorded a small effect size. The highest proportion of midwives working in continuity of care were located in small rural communities (40.2%) and remote locations (38.7%). Although not reaching statistical significance, on average midwives in the continuity group tended to be older ($M=47$ years) than those working in the

non-continuity group (M=45 years), and had worked in midwifery longer (M=16 vs M=15 years).

Burnout, depression and anxiety

Group comparisons showed statistically significant differences on all three CBI subscales measuring burnout (CBI Personal Mean = 50 v 58.3 $p=.002$; CBI Work Mean = 35.7 v 46.4 $p<.001$; CBI Client Mean = 8.3 v 16.7 $p<.001$). The continuity group recorded significantly lower median scores on each scale, indicating lower levels of burnout (see Table 2). The continuity group reported lower levels of depression and anxiety which were significantly different from non-continuity midwives on the Anxiety ($p=.007$) and Depression ($p=.004$) subscales of the DASS (Table 2).

Perceptions of Midwifery Empowerment

The two groups showed significantly different scores on two of the four Perception of Empowerment in Midwifery Scale (Revised) subscales. The continuity group recorded significantly higher levels of empowerment particularly on the Autonomy/Empowerment subscale ($p<.001$) with a medium effect size ($r=.45$), and the Skills and Resources subscale ($p=.002$) which produced a small effect ($r=.11$).

Time off and work life- balance

Ratings between groups were similar on the single item questions related to moderate to high satisfaction with time-off (continuity 76.2% vs non-continuity 79%) and work-life balance (continuity 58.9% vs non-continuity 63.3%). There was no statistical difference between midwives working in continuity and those in the non-continuity group in terms of low or moderate to high satisfaction with time off and work-life balance.

DISCUSSION

This is the first Australian study reporting on the wellbeing of a significant number of midwives working in continuity of care across the country. Working in a continuity of care model contributed to lower levels of burnout, depression and anxiety and higher levels of midwifery empowerment compared to midwives not providing continuity. There were no differences between groups in regards to satisfaction with time off and work-life balance. Over three-quarters of all midwives reported moderate to high satisfaction with time off. Around 60% of midwives, regardless of model of care reported moderate to high satisfaction with work-life balance. These are significant findings given our sample size, and provide evidence that most midwives in the continuity group were not dissatisfied with time off or work life balance.

In terms of burnout the results are consistent with the Australian work of Newton et al ⁴ and the more recent published NZ work of Dixon et al ² and the Danish work of Jepsen et al ²³. In all four studies the CBI was used to measure and compare burnout between midwives providing continuity and those in standard or core/employed hospital services where a shift based work pattern was the norm. Direct comparisons are therefore possible notwithstanding the fact that the cultural context needs to be taken into consideration. Across the four continuity groups mean score patterns were similar with the personal domain attracting the highest score followed by work related burnout. Client related burnout was very low [8.3 versus 11.3 ⁴; versus 10.2 ²³; versus 23.8 ²]. Likewise the three burnout mean domain scores of Australian, Victorian, Danish and New Zealand midwives working in standard or non-continuity models were comparable and all were higher than their continuity or caseloading counterparts. Even client related burnout which was low was still statistically significantly higher in the non-continuity groups.

In addition, the Dixon et al ² study used the DASS-21 to measure depression, anxiety and stress as well as the Perceptions of Empowerment in Midwifery Scale (PEMS revised) ²⁷. In terms of the DASS while higher rates were reported on all domains for employed (non-continuity) midwives, statistically significant differences were only reached on the Anxiety scale ($p=.001$) ². Our group of non-continuity midwives, however, were not only suffering significantly higher levels of anxiety than those in the continuity group but also higher rates of depression.

There was also some similarity between our results and those of Dixon et al ² in terms of midwifery empowerment. In both studies midwives providing continuity scored significantly higher on the autonomy and professional recognition domain. This domain captures concepts related to advocacy, autonomy, empowerment, midwife-led practice, control, respect, collegial support and professional recognition by the medical profession ²⁸. Our group of Australian midwives providing continuity of care, however, also scored statistically significantly higher on the domain labelled 'Professional development, skills and resources' than their non-continuity counterparts. The items in this domain seek to assess the midwife's perception of the knowledge, skills and necessary resources available to her/him to work across the full scope of midwifery practice and provide quality woman centered care. Matthews et al ³⁰ the original developers of the tool, argued this was an essential element of midwifery empowerment.

Our results support the burgeoning body of evidence that shows providing continuity of care to women within a caseload or activity based model is not only beneficial to childbearing women but also to midwives. The significantly lower levels of burnout and emotional distress and the higher levels of empowerment in those providing continuity of midwifery care attest to the protective nature of the model and align with the work of others ^{14,21,31}, emotional

distress ². Likewise, our findings resonate with those that have identified that midwives working in shift based patterns have high levels of burnout ^{2,4,14,23,32} emotional distress ² and consider themselves to be less autonomous, and less skilled ². Over the last two decades work has also shown that many midwives report high levels of job dissatisfaction as a result of feeling unable to provide woman centred care, heavy workloads, consistent change/upheaval, not knowing the woman, and the chaotic and unpredictable nature of fragmented care based in an acute care model ^{15,16,33-37}.

There is evidence in the literature that hospital based midwives experience high levels of harassment, bullying and abuse in the workplace ^{14,38} no doubt contributing to high levels of depression, anxiety and burnout in some midwives. Our work adds to a growing body of health services research interested in the association between burnout and depression ^{24,39,40}. Because of the retrospective design of many workforce studies, it remains unclear whether clinicians experience depression and anxiety and subsequently become burnt out or whether burnout precedes anxiety and depression. Certainly, there is an argument to suggest that these conditions have a high level of co-morbidity. The inverse correlation between low PEMS and high CBI scores suggests that burnout and disempowerment in the workplace may contribute to feelings of low self-esteem and hopelessness. Perpetuation of these feelings may then contribute to the more pervasive depression and anxiety.

The high proportion of midwives reporting moderate to high satisfaction with time off and work life balance across groups is encouraging. This is a positive finding given the concern that providing continuity of care and being on-call for women is disruptive to family life ⁴. Interestingly, however, the longitudinal work undertaken by Newton et al ⁴ found that after two years of providing caseload care, their small group of midwives reported an improved

lifestyle compared to those midwives not providing continuity. Similarly, in their qualitative follow-up, midwives described how the occupational autonomy and flexibility afforded by the caseload model maximised their work-life balance and improved their health and wellbeing³. Edmondson and Walker¹⁹, who described the experience of seven caseload midwives in North Queensland, also reported that midwives considered their work-life balance to be improved working in the caseload model. New Zealand researchers have reported similar findings from their qualitative explorations of caseload midwives' perceptions of working in sustainable group practices. The midwives in this work identified the importance of embedding strategies within their group practices to protect work life balance which ultimately improved satisfaction and long term sustainability^{21,22}

Limitations

The results need to be interpreted within the limitations of the study. Midwives self-selected when deciding to participate in the study which means some midwives experiencing severe burnout and/or depression may not have participated or they may be over represented. In addition, as the survey was distributed to members of the Australian College of Midwives and through professional networks there may be a difference between this group and non-College members. Measuring outcomes at only one point in time also limits understanding and may be a reason why the benefits of continuity in terms of work life balance and time off were not as evident as they were in the longitudinal work undertaken by Newton et al⁴. In addition, assessing satisfaction with time off and work-life balance with single item questions gave a blunt appraisal. Future research should consider using validated measures in these areas. However, our use of other well validated tools produced some interesting results that lend themselves to further national and international comparisons. Finally, the sample size of 214

midwives working in continuity of care is a strength of the study given previous Australian work in this field has reported on much smaller numbers (ie., Jordan et al ⁴¹ n=58; Mollart et al ⁴² n=56; Newton et al ⁴ n=22 caseload midwives and n=133 midwives working in standard care).

CONCLUSION

When compared to their non-continuity counterparts, Australian midwives providing continuity of midwifery care reported better emotional and professional wellbeing. They had lower levels of burnout, depression and anxiety and reported higher levels of professional identity and autonomy. In addition, they considered themselves more able to draw on the knowledge, skills and resources required to work across the full scope of midwifery practice and provide woman centered care. These findings resonate with the growing body of national and international evidence that providing continuity of midwifery care is not only beneficial for women but also for midwives. The work outlined in this paper makes a substantial contribution to the debate on the sustainable reorganisation of the midwifery workforce. Leaders of maternity services should feel increasingly confident that re-orientating care to align with the evidence will improve workforce wellbeing and satisfaction. Finally, and importantly, the results highlight that those midwives working in shift based models where care is fragmented are at significant risk of experiencing psychological ill health. Finding ways to better message the benefits of continuity to those who have no experience of the model, increasing availability of this model throughout Australia, and subsequently supporting midwives to transition into providing caseload care is a priority.

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Table 1 Participant characteristics

Characteristic	Continuity group	Non-continuity group	Statistic
	n=214 (24.8%)	n=648 (75.2%)	
Sex (n, %)			Chi sq=.22 df=1 p=.64 phi=.03
Female	209 (24.7%)	638 (75.3%)	
Male	5 (33.3%)	10 (66.7%)	
Age	M=47.14 (SD=9.77) Md=49 Range 22-66 yrs	M=45.34 (SD=11.39) Md=47 Range 22-79 yrs	Z=1.98 p=.048 r=.07
Marital status			Chi sq=5.51 df=3 p=.138 phi=.14
Single	20 (20.6%)	77 (79.4%)	
Married/Defacto	168 (25.4%)	494 (74.6%)	
Separated/Divorced	25 (28.1%)	64 (71.9%)	
Widowed	0 (0%)	12 (100%)	
Children			Chi sq=3.35 df=1 p=.07 phi=.07

Yes	178 (26.4%)	497 (73.6%)
No	36 (19.5%)	149 (80.5%)

Years in midwifery	M=16.49 (SD=10.38)	M=15.15 (SD=12.21)	Z=2.28 p=.023 r=.08
	Md=15	Md=13	
	Range 1-40 yrs	Range 1-50 yrs	

Australian State	Chi sq=14.84 df=7 p=.038 phi=.13
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ACT	10 (40%)	15 (60.0%)
NSW	39 (20.4%)	152 (79.6%)
NT	7 (43.8%)	9 (56.3%)
QLD	63 (26.9%)	171 (73.1%)
SA	22 (30.6%)	50 (69.4%)
TAS	8 (38.1%)	13 (61.9%)
VIC	51 (23.3%)	168 (76.7%)
WA	14 (17.1%)	68 (82.9%)

Registration	Chi sq=.53 df=1 p=.465 phi=.03
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Midwife only	51 (27.1%)	137 (72.9%)
Midwife and nurse	163 (24.2%)	511 (75.8%)

Location

Chi sq=25.08 df=4

p<.001 phi=.17*

Capital city	60 (19.2%)	252 (80.8%)
Metropolitan	54 (25.7%)	156 (74.3%)
Large regional	38 (20.8%)	145 (79.2%)
Small rural	33 (40.2%)	49 (59.8%)
Remote	29 (38.7%)	46 (61.3%)

Table 2 Comparison of scores on the CBI, DASS-21, PEM-Revised, for midwives employed in continuity models versus those employed in non-continuity models.

Scale	Continuity		Non-Continuity		Statistic
CBI	n	Md	n	Md	
Burnout – Personal	204	50	619	58.3	Z=3.15 p=.002 r=.11*
Burnout – Work	205	35.7	608	46.4	Z=4.82 p<.001 r=.17*
Burnout - Client	205	8.3	613	16.7	Z=3.20 p=.001 r=.11*
DASS					
Stress	203	8	607	10	Z=1.84 p=.065 r=.07
Anxiety	204	2	608	4	Z=2.70 p=.007 r=.10*
Depression	204	2	606	4	Z=2.9 p=.004 r=.10*

PEM (Revised)

Autonomy/Empowerment	197	4.5	584	3.75	Z=13.35 p<.001 r=.45*
Support of Manager	195	3.4	584	3.4	Z=1.88 p=.061 r=.07
Professional Recognition	196	3.8	585	3.6	Z=2.37 p=.018 r=.09
Skills and Resources	196	4.0	585	4.0	Z=3.033 p=.002 r=.11*

Satisfaction with time off	n	%	n	%	Chi sq=.65 p=.419 phi=.03
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Low satisfaction	51	23.8	135	20.9
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Moderate to high	163	76.2	511	79.1
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satisfaction

Satisfaction with work life balance	n	%	n	%	Chi sq=1.16 p=.281 phi=.04
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Low satisfaction	88	41.1	237	36.7
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Moderate to high 126 58.9 409 63.3

satisfaction

CBI: Copenhagen Burnout Inventory; DASS: Depression, Anxiety and Stress Scale; PEM

(Revised): Perceptions of Empowerment in Midwifery Scale; PES-Midwives: Practice

Environment Scale (Midwives); Md=median; p=probability; r=effect size statistic (.1=small

effect, .3=medium effect, .5=large effect Cohen, 1988); phi=phi coefficient effect size

statistic (.1=small effect, .3=medium effect, .5=large effect Cohen, 1988);*statically

significant

Box 1: Summary of measures

<p>Copenhagen Burnout Inventory (CBI) ²⁵</p>	<p>Three subscales;</p> <ul style="list-style-type: none"> • Personal (6 items) - <i>How often do you feel tired?</i> • Work – related (7 items) - <i>Does your work frustrate you?</i> • Client – related (6 items) - <i>Do you find it hard to work with women?</i> <p>All items use a 5-point scale with scores being adjusted so that the possible score range for all three subscales range from 0 (low burnout) to 100 (severe burnout)</p> <p>Burnout Scores;</p> <ul style="list-style-type: none"> • 50-74 moderate • 75 – 99 high • 100 > severe
<p>The Depression, Anxiety and Stress Scale - 21 (DASS-21) ²⁶</p>	<p>Three subscales;</p> <ul style="list-style-type: none"> • Anxiety (7 items) <i>I was aware of dryness of my mouth</i> • Depression (7 items) - <i>I felt down-hearted and blue</i> • Stress (7 items) - <i>I found myself getting agitated</i> <p>Scoring;</p> <p>Scores classified into a number of clinical categories (normal, mild, moderate, severe, extremely severe)</p>
<p>Perceptions of Empowerment in Midwifery Scale (revised) ²⁷</p>	<p>Four subscales;</p> <ul style="list-style-type: none"> • Autonomy/Empowerment - <i>I have autonomy in my practice</i> (4 items) • Manager Support - <i>I am valued by my manager</i> (5 items) • Professional Recognition - <i>I am valued by my manager</i> (5 items) • Skills and Resources - <i>I am adequately educated to perform my role).</i> (5 items) <p>Scoring;</p>

	<p>5-point scale (strongly disagree to strongly agree)</p> <p>Higher scores indicate stronger feelings of empowerment</p>
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