

Final Report to the Burdett Trust

Empowering Health Visitors to predict and detect deleterious mental health during pregnancy and the postnatal period and promote optimal care for childbearing women.

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Financial Summary

Pay		33,420.02
Stats		
Consultancy		1200
Non Pay		
	<i>Office Consumables</i>	499.66
	<i>Project Consumables</i>	
	<i>Fees</i>	
	<i>Sundries</i>	
	<i>Travel</i>	50
	<i>Hospitality</i>	115
	<i>Conference</i>	300
	<i>Overheads</i>	8,770.70
Spend to date	20/02/2013	42,805.38
	Remaining Balance	199.62

Background

Perinatal Mental Health (PMH) as an issue that spans the spectrum of pregnancy and childbirth is acknowledged as an important public health issue. Health Visitors (HVs) have had a traditional remit to identify and manage post natal depression (PND), but not the broader spectrum of PMH. Whilst training has shown to impact on HVs ability to identify and manage PND, no studies have considered PMH more broadly and it remains unclear how components of training relate to effective clinical decision-making.

The study: mixed methods

72 HVs, 6 student HVs, 14 non HVs attended a training session provided by a Specialist PMH Team. The Illness Perception Questionnaire (IPQ(R); to determine the impact of the training on practitioner knowledge, illness perceptions and confidence, was administered before and after the training. A follow-up questionnaire was distributed at eight weeks to determine the enduring impact of training. The qualitative component of the study involved the collection of data 2 weeks pre and 8 weeks post training through focus group discussions. Ethical approval and permission was obtained from the University Faculty Ethics Committee and the Research and Development Trust Headquarters of relevant Trusts.

IPQ(R)

The IPQ(R) (Moss-Morris et al, 2002) aims to assess the components of illness representation: Identity; timeline (acute/chronic, cyclical); control (personal, treatment); consequences and cause; emotional representation and illness coherence. Pre and post comparisons were analysed using SPSS.

Data Analysis

We used responses to the IPQ (R) items to calculate knowledge and confidence scores, which could be compared across the three time points.

Paired t-tests (with bootstrapping) were done for changes in Knowledge and Confidence scores between the time points). Covariates of Age, Years of Experience and Completion of a Specialist Module were included as factors in a three-way ANOVA with the change in score over time as the dependent variable for any of these scores. Age Groups and Years of Experience were also treated as interval level covariates.

Qualitative data were audio-recorded, transcribed verbatim and analysed using a qualitative thematic process (Braun and Clark 2006).

Results

Demographics

This was a predominantly female population, ages ranged from 20 to above 60. Length of time qualified ranged from 1 to over 20 years. The sample was taken from 2 localities. 7.6% reported receiving no previous PMH training, 57.5% reported previous training. Types of training for PMH were varied – 29.3% reported further training through study days, with pre registration training featuring as the second highest PMH training type (16%). Combined pre registration/study day

training was reported at 13%, and 12% undertook a specialist academic module in Woman and Mental Health.

Quantitative Findings

Illness Perceptions

Identity sub-scale

Table 1 illustrates perceptions of the symptoms associated with Childbearing, Anxiety and Depression, and Severe Perinatal Mental Health (SPMH).

Time-line subscale

- Time line acute/chronic

58.7% agreed that PMH problems lasted a short time. 55.4% agreed that problems started before the birth of the baby, with 85.9% agreeing that symptoms continued afterwards. Almost half the sample (53.2%) agreed that symptoms improved in time.

- Time line cyclical

56.5% agreed that symptoms changed from day to day, with 67.2% identifying that the condition involved cycles that got better and worse.

Consequences

90.2% agreed that PMH had major consequences. 60.9% agreed that problems strongly affected the way others see women who have them. 37% agreed that problems were associated with adverse birth outcomes, and 45.7% were neither in agreement or disagreement in relation to problems being associated with assisted deliveries. 43.5% agreed that problems were associated with poor attendance at antenatal clinics. 78.3% agreed that problems were associated with PND and impaired fetal attachment (87%).

Control subscale

- Personal control

81.6% agreed that what women did impacted upon their symptoms.

- Treatment control

84.8% were in agreement that treatment was effective and 85.8% agreed that treatment controlled the symptoms.

Illness Coherence

81.5% did not agree that problems didn't make sense to them; however 34.8% had a clear understanding of PMH, with 39.1% neither agreeing nor disagreeing.

Emotional representation

83.2% and 85.9% respectively were in agreement that symptoms made women feel afraid and angry.

Contributory Factors

Table 2 illustrates the frequency of responses for contributory factors.

The impact of training on midwives knowledge, confidence and illness perceptions

Results from the identity subscale of the IPQ(R) demonstrated that scores for SPMH, Combined Anxiety and Depression and Physical Symptoms did not change significantly across the three time points.

There were positive changes in knowledge and confidence scores for IPQ-Contributory factors items (bootstrapped p-value for t-test = 0.001 in both cases). IPQ Timeline Acute/Chronic, Consequences, and Personal Control Knowledge score changes were also statistically significant (bootstrapped p-values for t-test = 0.027, 0.001 and 0.003 respectively), with changes in the direction of greater knowledge at time two. For the two items forming IPQ illness coherence, a sign test showed that participants moved towards more disagreement with the statement '*PMH doesn't make sense*' (exact p=0.010) and more agreement with '*I have a clear understanding of PMH problems*' (exact p<0.001) after training.

Years of Experience was a significant covariate for the change in Anxiety and Depression knowledge, with the longer they'd been qualified the greater the increase in knowledge (p=0.02) and Age Group was a significant covariate for the change in IPQ Timeline Cyclical knowledge, with the older they were, the greater the increase in knowledge (p=0.044). The time three data reveals a similar pattern.

Self rated knowledge and confidence

All HVs demonstrated increased knowledge of Anxiety and Depression and SPMH, confidence to identify and manage Anxiety and Depression and SPMH post training (bootstrapped p = 0.001 in all cases).

The change in self-rated knowledge of Anxiety and Depression (p = 0.024) and change in confidence to manage Anxiety and Depression (p = 0.045), and SPMH (p = 0.029) was greater for those who had not already completed a specialist training module.

Less experienced HVs reported the greatest self-reported improvement in confidence to manage Anxiety and Depression (p=0.038), change in SPMH knowledge (p=0.027), change in confidence to identify (p=0.002) and manage SPMH (p=0.020). These patterns of positive change continued into time three.

Qualitative Findings

Analysis of the focus group interview data illustrated HV knowledge and how this is applied to practice, confidence, and empowerment.

Pre training focus group discussion (PreTFGD)

Participants in the PreTFGD commonly experienced many challenges. Four main themes listed below were developed through a process of thematic analysis¹.

- Referral Processes

¹ Thematic analysis/ HV quotes available if required

- Lack of Training/Inadequate Preparation for PMH Problems
- Services not Tailored to Women's Needs
- Changes

Post training focus group discussion (PostTFGD)

The PostTFGD demonstrates a shift in attitudes towards the care of women. The key elements are strongly associated with new knowledge, greater understanding and a feeling of positivity in relation to PMH.

- New Perspectives of PMH
- Practitioner Growth/Self Efficacy
- Recognition of the Value of Complementary Support
- Enabling/Promoting Self Care
- Encouraging Reciprocal Caring

Discussion

The results lucidly highlight the positive impact of training on knowledge and accurate illness perceptions in relation to the spectrum of perinatal mental health problems (PMHP).

HVs generally demonstrate the ability to match symptoms to an illness label or condition; for several symptoms the greatest proportion gave a response congruent with the correct answer, findings also suggest, however, that they believed the symptoms were associated with one of the other conditions/aspects (Table 1). In some cases this was also reflective of the correct answer, highlighting how the overlap between symptoms of pregnancy, birth and the postnatal period, and those of PMHP are a challenge in terms of identification. This finding is not a negative one, as what is important in the recognition of PMHP is not diagnosis, but identification of abnormality.

There was a positive impact in relation to knowledge of, and confidence in their knowledge about timeline and consequences of PMHP. The significance of this is that HVs have traditionally focused on the identification and management of PND only. The increase in knowledge regarding consequences suggests that post training they are better able to consider PMHP across a broader spectrum. This is reinforced by the increase in positive responses to IPQ timeline acute items such as *'PMHP are likely to start before the birth of the baby'* and *'the symptoms of PMH problems are likely to continue after the birth of the baby'*. Knowledge and confidence about contributory factors also increased post training suggesting an increase in the sophistication of their understanding. HVs demonstrate both quantitatively and qualitatively, increased knowledge and confidence in the belief that women can be supported to impact on their own symptoms.

The findings related to Years of Experience may appear contradictory, however, it seems that training facilitates the more appropriate contextualisation of experiential learning gained from clinical practice, hence training facilitates the 'unlocking' of existing knowledge and facilitates more understanding of PMHP. A similar explanation could be applied to those who have not undertaken a specialist module, in that training embeds new knowledge into an existing erudite framework, which facilitates feelings of confidence to manage those conditions.

It is important to note that in the areas where training had no impact on scores, knowledge and illness perceptions were already good. What the results do demonstrate is a lack of confidence pre-training. The positive impact of the training on self-reported confidence to apply increased knowledge to identification and management is evident. HVs in their pre-training accounts lucidly display a lack of confidence in their knowledge but also in their ability to ‘accurately’ identify and manage women.

“... Depression is depression whether it is antenatal or ... you just think of it as depression ...” (Our edit) (HV 2) PreTFGD

The perceived value of the training to their practice is exemplified in the post-training accounts;

“I think it’s the vastness of it (PHM) really, yes it is (agreement from HV 2), there’s more out there than you think, yeah” (Our edit) (HV 3) PostTFGD

“Well it made me confident about some of the issues that I felt, I knew some of them, and that contributed to the confidence overall I think of how I approached things, it’s certainly altered my, the way I do things I think as well, it’s a bit more probing the questions, rather than just accepting what they say” (Our edit) (HV 3) PostTFGD

That self-reported confidence to both identify and manage PMHP across the spectrum is pleasing. Awareness of the existence and accessibility of services to support women appears to effectively empower HVs to identify women. HVs explain in the FGDs how this provides a clear care pathway for women, whereas previously the lack of provision may have led to fear of uncovering a problem which may then engender a subsequent responsibility for its management.

Conclusion

- Findings from this study suggest that training is not just about imparting new knowledge
- Seeing training as a way of enhancing and “unlocking” existing knowledge, increasing perceptions of support, and clarifying service provision, led to the increased confidence and empowerment of HVs to more effectively care for women
- The combination of increased knowledge along with an understanding of referral processes and support offered by other services, empowered HVs to approach women with PMHP in a more multifactorial way
- Training empowers HVs’ to have confidence in their own skills to support women but also to draw on community and other resources, including women’s own ability to support each other
- Providing training, leads to PMHP becoming a topic for discussion, not only with women experiencing difficulties, but also with colleagues and mental health professionals
- In this study, we adapted the IPQ(R), which although a relatively elaborate questionnaire appears to be effective in identifying change in knowledge and illness beliefs across time

Appendices

Table 1: Identity (The most popular response chosen by HVs for each symptom is represented in red font)

	SPMH	SPMH + Anx.	SPMH + Dep.	SPMH + Phys. Sympts.	SPMH + Anx. + Dep.	SPMH + Anx. + Phys. Sympts.	SPMH + Dep. + Phys Sympts.	SPMH + Anx. + Dep. + Phys Sympts. (ALL)	Anx.	Anx. + Dep.	Anx. + Phys. Sympts.	Anx + Dep. + Phys Sympts.	Dep.	Dep. + Phys. Sympts.	Phys. Sympts.
Constipation	0	0	3.3	3.3	1.1	0	3.3	13	0	1.1	3.3	7.6	2.2	14.1	43.5
Leg cramps	2.2	1.1	1.1	2.2	0	0	2.2	8.7	1.1	1.1	10.9	1.1	1.1	0	56.5
Self harm	23.9	4.3	32.6	0	28.3	0	0	4.3	1.1	1.1	0	0	1.1	1.1	1.1
Hearing voices	69.6	1.1	9.8	0	10.9	0	0	5.4	0	0	0	0	0	0	1.1
Being elated or euphoric	30.4	4.3	10.9	7.6	9.8	2.2	3.3	8.7	0	1.1	0	1.1	0	4.3	9.8
Extreme mood swings	28.3	1.1	21.7	0	27.2	0	3.3	12	0	0	0	0	2.2	0	0
Risk taking behaviour	43.5	1.1	25	0	12	0	0	5.4	2.2	3.3	0	0	1.1	0	0
Having beliefs that baby is a threat or is in danger	34.8	13	15.2	0	20.7	0	1.1	8.7	2.2	2.2	0	0	0	0	0
Having thoughts of harming the baby	46.7	0	31.5	0	12	0	1.1	3.3	0	0	0	0	2.2	0	0
Reduced interest in appearance	0	0	31.5	0	18.5	0	9.8	22.8	0	2.2	0	4.3	7.6	2.2	0
Difficult making decisions	0	0	6.5	0	46.7	0	0	27.2	3.3	9.8	0	1.1	0	3.3	0
Feelings of failure	0	3.3	14.1	0	43.5	0	2.2	22.8	0	7.6	0	1.1	2.2	1.1	0
Headaches	0	3.3	1.1	0	18.5	0	0	38	5.4	7.6	5.4	7.6	1.1	1.1	4.3
Nausea	0	0	1.1	1.1	14.1	4.3	0	27.2	10.9	4.3	8.7	9.8	0	0	15.2
Weight loss	0	2.2	5.4	2.2	32.6	1.1	2.2	26.1	2.2	5.4	3.3	5.4	7.6	0	0

	SPMH	SPM H + Anx.	SPMH + Dep.	SPMH + Phys. Sympts.	SPMH + Anx. + Dep.	SPMH + Anx. + Phys. Sympts.	SPMH + Dep. + Phys Sympts.	SPMH + Anx. + Dep. + Phys Sympts. (ALL)	Anx.	Anx. + Dep.	Anx. + Phys. Sympts .	Anx + Dep. + Phys Sympts .	Dep.	Dep. + Phys. Sympts.	Phys. Sympts.
Worrying thoughts about the baby	5.4	7.6	5.4	1.1	32.6	3.3	1.1	29.3	2.2	3.3	0	2.2	0	0	4.4
Weight gain	1.1	0	3.3	1.1	1.1	0	10.9	21.7	1.1	6.5	5.4	6.5	7.8	16.3	17.4
Anger	8.7	3.3	10.9	0	38	0	1.1	16.3	4.3	7.6	0	0	2.2	0	4.3
Dizziness	3.3	1.1	2.2	2.2	5.4	1.1	1.1	22.8	9.8	3.3	16.3	8.7	0	1.1	16.3
Tearfulness	0	0	3.3	1.1	12	0	2.2	53.3	1.1	5.4	1.1	12	1.1	2.2	4.3
Indigestion or discomfort in abdomen	0	1.1	2.2	0	3.3	1.1	2.2	21.7	10.9	1.1	22.8	8.7	0	0	17.4
Having distress and disruptive beliefs and thought	28.3	2.2	13	0	35.9	0	0	15.2	1.1	2.2	0	0	0	0	0
Being shaky and unsteady	3.3	4.3	2.2	3.3	13	4.4	0	21.7	15.2	6.5	9.8	5.4	2.2	0	4.3
Fear of worse happening	2.2	8.7	7.6	1.1	31.5	0	1.1	25	5.4	8.7	3.3	2.2	1.1	1.1	0
Aches and pains	2.2	0	2.2	2.2	4.3	0	4.3	35.9	1.1	3.3	7.6	9.8	0	5.4	19.6
Feelings of panic	1.1	12	0	0	40.2	3.3	0	13	15.2	6.5	3.3	1.1	0	0	0
Sadness	0	0	10.9	0	26.1	0	4.3	17.4	0	12	1.1	1.1	21.7	2.2	1.1
Upset stomach	0	2.2	1.1	0	7.6	1.1	2.2	20.7	16.3	0	19.6	5.4	1.1	0	10.9
Vomiting	1.1	5.4	2.2	0	4.3	3.3	1.1	14.1	15.2	2.2	18.5	3.3	1.1	0	19.6
Loss of interest in other people	3.3	1.1	22.8	0	41.3	0	1.1	7.6	1.1	4.3	0	1.1	10.9	0	1.1
Suicidal thoughts	27.2	0	48.9	0	18.5	0	0	2.2	0	0	0	0	1.1	0	0

	SPMH	SPM H + Anx.	SPMH + Dep.	SPMH + Phys. Sympts.	SPMH + Anx. + Dep.	SPMH + Anx. + Phys. Sympts.	SPMH + Dep. + Phys Sympts.	SPMH + Anx. + Dep. + Phys Sympts. (ALL)	Anx.	Anx. + Dep.	Anx. + Phys. Sympts .	Anx + Dep. + Phys Sympts .	Dep.	Dep. + Phys. Sympts.	Phys. Sympts.
Feelings of guilt	1.1	1.1	8.7	0	0	31.5	1.1	20.7	4.3	12	2.2	4.3	4.3	2.2	1.1
Reduced interest in enjoyable activities	1.1	0	15.2	0	40.2	0	2.2	9.8	0	9.8	0	3.3	12	2.2	0
Self criticalness	1.1	0	3.3	0	39.1	1.1	0	17.4	0	13	0	3.3	9.8	1.1	0
Increased or decreased appetite	0	0	5.4	0	16.3	0	1.1	37	0	10.9	2.2	13	5.4	3.3	3.3
Difficulty regulating emotions	1.1	1.1	7.6	0	40.2	0	4.3	27.2	0	6.5	0	3.3	2.2	0	2.2
Fatigue	1.1	0	1.1	1.1	8.7	0	7.6	53.3	1.1	1.1	1.1	8.7	5.4	5.4	0
Reduced motivation	0	1.1	17.4	0	30.4	0	3.3	14.1	0	12	0	3.3	12	2.2	0
Breathlessness	0	0	0	0	4.3	3.3	0	19.6	18.5	2.2	27.2	1.1	2.2	1.1	9.8
Sleep disturbance	2.2	0	5.4	0	17.4	0	1.1	57.5	1.1	3.3	0	4.3	0	3.3	1.1
Loss of interest in sex	0	0	3.3	0	7.6	1.1	3.3	62	0	1.1	1.1	4.3	6.5	6.5	1.1
Feelings of being punished	28.3	2.2	20.7	0	22.8	0	0	8.7	1.1	4.3	1.1	0	3.3	1.1	0
Unable to relax	1.1	8.7	0	0	34.8	1.1	0	21.7	12	12	2.2	1.1	2.2	0	0

Table 2: Pre Training Contributory Factors

	Most frequent Response %	2nd Most frequent Response (%)
Stress or worry	63 Agree	27.2 Strongly agree
Genetic Factors	58.7 Agree	22.8 Neither
Virus	46.7 Neither	30.7 Disagree
Diet	37 Agree	37 Neither
Chance or bad luck	32.6 Neither	28.3 Agree
Psychiatric history	51.1 Agree	39.1 Strongly agree
Women's own behaviour	48.9 Agree	37Neither
Women's mental attitude	56.5 Agree	22.8 Neither
Relationship problems with partner	67.4 Agree	23.9 Strongly agree
Difficult birth experience	62 Agree	27.2 Strongly agree
Something being wrong with baby	67.4 Agree	13 Strongly agree/Neither
Fear of Something being wrong with baby	70.7 Agree	10.9 Neither
Women not in relationship	39.1 Neither	27.2 Disagree
Being older mother	41.3 Neither	26.1 Disagree
Substance misuse	58.7 Agree	17.4 Strongly agree
Stopping smoking	46.7 Neither	23.9 Agree
Hormonal imbalance	58.7 Agree	17.4 Neither
A major life event	62 Agree	27.2 Strongly agree
Womens personality	50 Agree	25 Neither
Low social support	62 Agree	17.4 Strongly agree
Unplanned pregnancy	40.2 Agree	32.6 Neither
Unwanted pregnancy	57.6 Agree	20.7 Neither
Teenage pregnancy	42.2 Neither	27.2 Agree
Family history of PMH problems	64.1 Agree	13 Neither
Family history of mental health problems	63 Agree	15.2 Strongly agree

Poor relationship with mother	54.3 Agree	17.4 Neither
Work factors	59.8 Agree	26.1 Neither
Previous miscarriage or lost pregnancy	70.7 Agree	12 Neither
Perceived loss of identity	72.8 Agree	15.2 Neither
First pregnancy	53.3 Neither	22.8 Agree
Assisted fertility treatment	44.6 Agree	37 Neither
Changes in status and role	70.7 Agree	15.2 Neither
Responsibility of motherhood	69.6 Agree	17.4 Neither
Physical changes in body weight and shape	60.9 Agree	25 Neither
Being a victim of DV	56.5 Agree	34.8 Strongly agree
Changes to maternal sleep patterns	64.1 Agree	18.5 Neither
Infant temperament	58.7 Agree	20.7 Neither
Feeding problems	67.4 Agree	18.5 Neither
Infant care problems	63 Agree	19.6 Neither

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