Measuring Psychological Health in the Perinatal Period

Workshop Consensus Statement 19th March 2013

This consensus statement is the result of an invited workshop funded by the Society for Reproductive and Infant Psychology on Measuring Psychological Health in the Perinatal Period which was held in Oxford on the 19th March 2013. The details of those who participated in the workshop can be found at the end of the consensus statement. The workshop evolved out of recognition that a major limitation to research and practice in the perinatal period is identifying valid, reliable and clinically relevant measures of psychological health.

Work Shop Aims:

To explore the definition and measurement of key components of psychological health and related constructs, in maternity care research.

To discuss design and reporting standards of measures in the perinatal period to support measurement development and appropriate use.

Defining psychological health in the perinatal period

We chose to use the term psychological health in our workshop discussions instead of more familiar terms such as well-being, mental health and quality of life, as we wanted to use a term that would allow us to open up our thinking rather than use terms that already have distinctive usage and associations in the current literature. In

doing so we aimed to initiate a debate that could help redefine and progress our thinking on how we currently perceive psychological health in the perinatal period.

As much of the research in the field historically has explored psychological *ill* health, this consensus paper aims to redress the balance by exploring psychological health as a continuum. By exploring the whole continuum of psychological health we would like to draw the debate towards an approach that is inclusive and non-stigmatising, and that could enhance well-being as well as support women and their families experiencing psychological ill health during this significant life event.

We worked to a bio-psychosocial model recognising that psychological health is best understood through the combination of physical, psychological and social factors rather than working to a medical model aimed at identifying and categorising disease. The bio-psychosocial model acknowledges the importance of an interdisciplinary approach, the complexity of the constructs being defined and the uniqueness of the pregnancy and childbirth experience thus aiding the conceptualisation of psychological health in the perinatal period and providing an important framework in which to interpret research findings.

Our time frame of interest encompassed maternity care as the defining boundary as we wanted to highlight not only the importance of progressing our understanding of psychological health through research but the importance of translating our research into benefit in practice. As a group we value the need for measures that are

meaningful to both practitioners and to those in their care by moving beyond theory and research. Most of our discussion revolved around pregnancy and childbirth but it is important to note that many of the issues raised have resonance in the broader perinatal period from conception through the first year of life. What happens to children before they are born and in their early years can affect their health and opportunities later in life. This is such an influential time of life for the whole family that using the opportunity that maternity care brings to maximise psychological health is vital.

Defining key components of psychological health

A number of overlapping constructs of psychological health, as opposed to ill health, were discussed including well-being , quality of life, salutogenesis and resilience that need further debate and study in the perinatal period. Brief definitions of the four constructs are outlined below. They are by no means exhaustive in terms of exploring the more positive aspects of psychological health. Rather, they represent a starting point in identifying what needs to be defined and measured alongside more traditional constructs such as anxiety, depression, mood, worry and post-traumatic stress.

Well-being: There has been a steady increase in well-being research in recent decades. Well-being has been widely reported to consist of two distinctive affective and cognitive components. The *affective* component includes both positive affect, e.g. affection, interest, joy, as well as negative affect in a full assessment of well-being, e.g. sadness, anger, worry and stress**.** The *cognitive* component is widely

referred to as life satisfaction involving the development of one's potential, having some control over one's life, having a sense of purpose (e.g. working towards valued goals), and positive evaluation of relationships. As the cognitive component reflects the conditions and circumstances of life as a whole, additional measurement of domain satisfaction can also be included i.e. focused evaluation of some specific aspect of one's life such as childbirth. While domain satisfaction and life satisfaction are generally highly correlated, measurement of domain satisfaction allows the examination of variations in well-being related to specific circumstances. A detailed review of assessment of well-being can be found in Diener (2009).

Quality of Life: Quality of life, also often referred to as health related quality of life, is a widely used term in health literature and many measures exist but there has been inconsistency in definition. As with well-being, there is now considerable agreement that quality of life is a multi-dimensional construct and may incorporate physical functioning (ability to undertake activities of daily living including self-care and mobilising), psychological functioning (emotional and mental well-being), social functioning (relationships with others and ability to take part in social activities) and perception of health status, pain and general satisfaction with life. Quality of life measures also exist within a range of specific disease and health domains. Bakas et al, (2012) provides a review of models of health related quality of life used in current literature.

Salutogenesis: The term salutogenesis (the word literally means 'origin of health') is less widely known and was developed by Antonovsky, a medical sociologist. It has been proposed as an outcome measure for birth and a way of maximising the potential for optimum birth experience (Downe and McCourt 2004). Salutogenesis explores the generation of well-being, focusing on health and how to promote it

rather than illness and how to cure it. Downe and McCourt (2004) describe salutogenic well-being as an end product of complex, personal and societal interactions. So while stress may be considered ubiquitous in the perinatal period, promoting positive resources available to a woman, even in the light of potentially negative events, enables her to bring these salutogenic aspects of her clinical, emotional, social, spiritual and family history into the birth experience. Such an approach acknowledges the uniqueness of each woman's circumstances, prioritising and maximising positive well-being as the primary approach.

Resilience: The broad definition of resilience is the individual's ability to cope with stress and adversity. Resilience research has its roots in risk, stress and coping psychology. It has variably been defined as a trait, process or outcome but consensus appears to be emerging on viewing resilience as a process. Positive adaptation and risk are two important constructs in conceptualising the resilience process. Positive adaptation reflects that ability to achieve tasks that would normally be expected at a particular age or life stage, in this case pregnancy and child birth. Risk factors may be multiple life stressors, a single traumatic event or cumulative stress from multiple factors. Protective factors and vulnerability factors are also part of the central construct. Protective factors modify risk in a positive direction and may originated at personal, family or social levels, e.g.self esteem, optimism, social skills, ability to see failure as a form of helpful feedback, family cohesion, emotionally responsive caregiving and supportive peer networks. Vulnerability factors exacerbate the negative effects of risk, for example teenage motherhood (Harrop et al provide a definition and review of resilience).

In addition to exploring core components, a key consideration when defining psychological health is the need to identify potential mediator and moderator variables. In the course of our discussions a number of variables that may act as moderator or mediator variables were identified including adaptation, attachment, experience of care, locus of control, personality, and self-efficacy.

Why do we need to measure psychological health?

Recent decades have seen a number of changes, nationally and internationally, that impact on the approach we take to measuring psychological health in research and in practice. For example, the development of national well-being indicators as an alternative to economic indicators, changing practices in relation to the diagnosis of mental illness, the continuing evolution of health service quality indicators, public health crises such as obesity, alcohol use and stress all impact on why we measure what we measure in relation to psychological health in the perinatal period. In addition, certain aspects of psychological health in the perinatal period may have specific cultural relevance and may not translate well across cultures. A lack of international collaboration was noted in relation to measurement which imposes a number of restrictions on current research knowledge, primarily what is generalisable across culture and what is not.

Women and their families need to be at the centre of our approach to psychological health in the perinatal period; we need to listen to their views and experiences of

pregnancy and childbirth and to engage them in theory and measurement development. We need to recognize the importance of promoting well-being, rather than solely striving for the absence of illness, as the majority of women giving birth are well and have a positive experience of the perinatal period. It is this need to balance the care of women who are healthy while meeting the needs of the substantial minority who require additional support that is central to why we need to measure psychological health. It was a recurring theme in our discussions that much more research needs to be conducted on the potential benefits of this major life experience for mother, partner and infant rather than continually focussing on the negative. We acknowledge the urgent need to introduce measures into practice that can identify women who may need additional support, however introducing measures into routine care without careful consideration can increase the risk of 'overpathologising' pregnancy and the over-referring of women to specialist services. In short, we run the risk of causing more concern and anxiety for more women and their families by introducing ill-conceived screening tools and interventions if we do not pause to reflect on what we are measuring and why we are measuring it (Ayers and Olander, 2013).

Measuring psychological health in the perinatal period

There are many ways of measuring psychological health including observation, diary keeping and reports by significant others in addition to self-report measures. Short self-report measures are attractive for routine clinical practice because they are easy to use and cut offs can be introduced to aid practitioner decision making. However measures should not be seen as a replacement of clinical skills and expertise but

part of a broader decision making process. This is explored further in Jomeen et al (2013) in this special edition.

The need to keep measurement simple in practice has led to restrictions that can impact on interpretation of results. Research and practice in the field often demonstrates a reliance on a single construct. However, as this consensus statement highlights, when working with complex constructs within the bio-psychosocial model there is a need for a more strategic, collaborative approach to measurement. Similarly, consideration of relevant theories or explanatory frameworks, such as the bio-psychosocial model, is critical in deciding what to measure and why. Even when explanatory frameworks are not explicitly recognised by researchers, our implicit beliefs about causal frameworks will affect what we measure and how we interpret results. Consideration and use of theoretical frameworks therefore has a number of benefits including more coherent research, explicit recognition and testing of assumptions guiding the research, contributions to theory testing and development, and therefore increased theoretical understanding of perinatal well-being (Ayers & Olander, 2013). Most importantly, greater understanding of perinatal well-being should inform the development of more effective interventions in practice.

There are a number of key questions that should direct our thinking going forward.

What do we want to know from the measure?

From a research perspective, two central questions are: what predicts perinatal psychological health and what are the consequences of perinatal psychological health? For example, research to date suggests that psychological ill health in pregnancy is associated with poor short, medium and long term outcomes for mother and infant. However we also need to know what aspects of psychological health in the perinatal period contribute to good physical health and strong family relationships. Therefore measurement needs to reflect the multi-dimensional nature of psychological health. We also need to measure changes over time to explore normal variations in psychological health over the perinatal period and to explore causal relationships between bio-psychosocial factors.

From a practice perspective, short, easy to use instruments are needed that monitor psychological health to facilitate timely and appropriate intervention whether that be to identify need, to be used as a screening instrument for additional services or to introduce change. An increased interest in perinatal mental health has led to the introduction of mental health indicators into maternity care, for example, the Whooley questions are recommended in the National Institute for Health and Care Excellence (NICE) guidelines for use in routine practice (NICE, 2007). It is important that these questions are open to on-going critique and analysis like every other measure. Also, considering the uniqueness of this population in health terms, the views and experiences of women are vital in the on-going development and use of measures of psychological health. We need to know how acceptable current measures are to women and what women think needs to be measured to reflect the different bio-psychosocial components of their experience of psychological health during pregnancy and childbirth.

What measures should we use and when?

There is a tension between using generic measures as opposed to domain measures developed to be relevant to the perinatal period, for example, pregnancy specific well-being. At this stage, we need to acquire more knowledge of both to help develop our understanding of underlying constructs and how they might be influenced. Many generic measures have not been thoroughly tested in the childbearing population which is problematic as certain measurement assumptions may not be met during the perinatal period. Further consideration should be given to the stability of the measurement construct over time. For example, state anxiety and pregnancy specific anxiety may fluctuate at different stages in pregnancy reflecting natural changes during pregnancy rather than instrument instability (Newham and Martin, 2013).

In addition, retrospective measures should be considered with caution if exploring pregnancy experiences after birth. While retrospective measures are recognised to be problematic in regard to accuracy of recall (Hawkins and Reid, 1990), this may be exaggerated when retrospectively reporting pregnancy affect because experiences around the time of birth may contribute to a hindsight bias. For example, for a woman who has had a premature birth this may colour her retrospective recollection of pregnancy with a tendency to remember negative events and emotions. Similarly, a woman who has a healthy baby may be more likely to remember the positive aspects of pregnancy. Finally, some measures are used frequently in research, often for good reason such as to allow for comparison across different studies, however if we do not take time to reflect on what we are measuring we also run the risk of using

a measure because it has a high profile rather than necessarily being the best measure of psychological health.

Reporting Standards

Psychometric standards are addressed in this journal issue in the paper by Martin and Savage-McGlynn (2013). The focus of that paper is necessarily related to methodological approaches, particularly within the context of rigour and statistical appropriateness. However, there are broader conceptual and ethical issues in the analysis, reporting and interpretation of data. Much time and effort is employed in engaging women in research to develop these measures and, to maximise the successful development of these measures, there is a need for psychologists to uphold scientific research rigor not only in theory development, recruitment of samples but also the methodology and analytical methods employed.

There is much to be gained from new statistical techniques and approaches when developing measures to capture the complexity of psychological health in the perinatal period, and indeed more generally, but we need to acknowledge their strengths and the limitations and gain a fundamental understanding of the statistical rules underpinning these techniques, to facilitate appropriate analysis and interpretation. Ignorance of these issues may lead to misrepresentation and misinterpretation of data and consequently the diminished reliability and validity of finding. Embracing such approaches creates many opportunities for the researcher, but transparent reporting of complex or new techniques is vital to improve our application and replication of these approaches.

OVERALL CONCLUSIONS

The aim of this consensus statement was to identify key issues around defining and measuring psychological health in the perinatal period on which workshop participants agreed further exploration and debate was needed. The participants in the workshop came from diverse backgrounds with different emphases on measuring psychological health which enhanced the discussion and highlighted the diversity of issues that need to be addressed moving forward. The statement acknowledges the importance of a continuum approach to psychological health in the perinatal period and the value of using of a bio-psychosocial model in developing our thinking. While our discussions highlighted many gaps in our current knowledge, more importantly, they identified gaps in communication of valuable knowledge we already have from other areas. For example, measuring well-being in the perinatal period is lagging behind in comparison to well-being research more generally (Diener, 2009). Clearer definition of perinatal psychological health is needed but it is unrealistic to consider that one measure or one unifying construct can be signed up to internationally although consensus on key components of psychological health may be feasible and worthy of exploration.

There are many potential pitfalls ahead and we need to be proactive in addressing these. Moving forward we need good synthesis of current knowledge to identify gaps in concept, psychometric data and application of measures. We need to identify ways of increasing our knowledge base, for example, by building evaluation of measurement into intervention studies or by including psychological health measures

into perinatal epidemiological or clinical studies (an example is provided in this journal edition by Alderdice, Savage-McGlynn and Martin 2013). But we also need to exercise caution; better measurement is needed not *more* measurement. Better measurement needs careful consideration about *what* we are measuring and what we hoping to achieve by measuring it.

Whatever we measure requires rigorous and robust evaluation of the measure both in terms of psychometric standards and interpretation of those standards. We need to listen and consider what is acceptable to women and we need to work collaboratively, strategically and in partnership with practitioners to realise improvements in family psychological health and to affect a paradigm shift in how we perceive psychological health within maternity care. Without adequate reflection progressing research into practice will continue to be hindered.

Consensus workshop participants

Workshop Chair: Fiona Alderdice, Professor in Perinatal Health and Well-being, School of Nursing and Midwifery, Queens University Belfast

Susan Ayers, Professor of Maternal and Child Health, School of Health Sciences, City University London

Zoe Darwin, Research Fellow, Department of Health Sciences, University of York

Josephine M Green, Professor of Psychosocial Reproductive Health, Department of Health Sciences, University of York.

Julie Jomeen, Professor of Midwifery, Faculty of Health & Social Care, University of Hull

Sarah Kenyon, Senior Lecturer, School of Health and Population Sciences University of Birmingham

Colin Martin, Professor of Mental Health, Buckinghamshire New University.

Jane Morrell, Associate Professor in Health Research, School of Health Sciences, University of Nottingham

James Newham, Post-doctoral Research Associate, Institute of Health and Society, Newcastle University

Maggie Redshaw Senior Research Fellow, Social Scientist, Policy Research Unit for Maternal Health and Care, National Perinatal Epidemiology Unit, University of Oxford

Emily Savage-McGlynn, Researcher in Statistics and Child Health, Policy Research Unit in Maternal Health, National Perinatal Epidemiology Unit, University of Oxford

Judi Walsh, Senior Lecturer, School of Psychology, University of East Anglia

References

Alderdice, F., Savage-McGlynn, E., Martin, C.R., McAuliffe, F.M., Hunter, A., Unterscheider, J., Daly, S., Geary, M.P., Kennelly, M.M., O'Donoghue, K., Morrison, J.J., Burke, G., Dicker, P., Tully, E.C., Malone, F.D. (2013) The Prenatal Distress Questionnaire: An Investigation of Factor Structure in a High Risk Population. *Journal of Reproductive and Infant Psychology*

Ayers S & Olander (2013) What are we measuring and why? Using theory to guide perinatal measurement. *Journal of Reproductive and Infant Psychology.*

Bakas, T., McLennon, S.M., Carpenter, J.S., Buelow, J.M., Otte, J.L., Hanna, K.H., Ellett, M.L., Hadler, K.A., and Welch, J.L. (2012). Systematic review of health-related quality of life models *Health and Quality of Life Outcomes*, 10:134 doi:10.1186/1477-7525-10-134

Deiner E (2009) Social Indicators Research Series No39 Assessing Well-Being: The Collected Works of Ed Deiner Springer USA.

Downe S, McCourt C. (2004) From being to becoming: reconstructing childbirth knowledges. In: Downe S (editor). *Normal Childbirth: evidence and debate*. Philadelphia: Churchill Livingstone.

Harrop E, Addis S, Elliott E, Williams G. Resilience, coping and salutogenic approaches to maintaining and generating health: a review. http://www.gserve.nice.org.uk/nicemedia/pdf/Behaviour_Change-Review_on_Resilence_coping_and_salutogenic_approaches_to_health.pdf

Hawkins SA, Reid H (1990). Hindsight: Biased judgements of past events after the outcomes are known. *Psychological Bulletin* 107 3 311-327 doi: 10.1037/0033-2909.107.3.311

Jomeen J title to be confirmed *Journal of Reproductive and Infant Psychology*

Newham J & Martin C (2013) Reflections on the applications of ecological momentary assessment in pregnancy *Journal of Reproductive and Infant Psychology*

Martin C & Savage-McGlynn E (2013) Title to be confirmed *Journal of Reproductive and Infant Psychology*

NICE (2007) Antenatal and postnatal mental health: Clinical management and service guidance http://publications.nice.org.uk/antenatal-and-postnatal-mental-health-cg45