



UNIVERSITY OF LEEDS

This is a repository copy of *Assessment acting as intervention: findings from a study of perinatal psychosocial assessment*.

White Rose Research Online URL for this paper:  
<http://eprints.whiterose.ac.uk/79510/>

Version: Accepted Version

---

**Article:**

Darwin, Z, McGowan, L and Edozien, LC (2013) Assessment acting as intervention: findings from a study of perinatal psychosocial assessment. *Journal of Reproductive and Infant Psychology*, 31 (5). 500 - 511. ISSN 0264-6838

<https://doi.org/10.1080/02646838.2013.834042>

---

**Reuse**

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.



[eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk)  
<https://eprints.whiterose.ac.uk/>

**Title**

Assessment acting as intervention: findings from a study of perinatal psychosocial assessment

**Authors**

Dr Zoe Darwin\*

Research Fellow, Department of Health Sciences, University of York, YO10 5DD

Dr Linda McGowan

Senior Lecturer in Women's Health, School of Nursing, Midwifery and Social Work,  
University of Manchester, Oxford Road, M13 9PL

Dr Leroy C Edozien

Consultant Obstetrician and Gynaecologist and Honorary Senior Lecturer, Institute of Human  
Development, University of Manchester, St Mary's Hospital, M13 9WL

\*Corresponding author

Address for correspondence: Department of Health Sciences, University of York, Heslington,  
York, YO10 5DD.

Email for correspondence: zoe.darwin@york.ac.uk

## **Abstract**

**Objective:** To consider how psychosocial assessment in the perinatal period may act as an intervention.

**Background:** Psychosocial assessment has been introduced into routine antenatal care in several countries but there has been no consideration of 'measurement reactivity', the effects of such processes on those being measured.

**Methods:** Psychosocial assessment as part of routine antenatal booking and by self-completion of a research questionnaire, followed by interview of a purposive sample of 22 women who scored above threshold on maternal stress measures. Interviews were conducted up to three times during pregnancy and the early postnatal period, to explore women's experiences and understandings of maternal stress and to obtain their views on antenatal psychosocial assessment and social support. Transcribed data and field notes were analysed using Framework Analysis.

**Results:** The potential for assessment to act as an intervention varied across different settings (clinical practice and assessment in a research context), with different methods (self-completion and assessment as part of a consultation or interview), and across individuals. Measurement effects were pronounced through longitudinal involvement, interviewer style and concurrently assessing the origins of psychological health and coping strategies.

**Conclusion:** The analysis illustrates how reflexivity can enable new and often unexpected findings to emerge. The findings raise important questions about how the role of the research(er) is constructed, particularly when evaluating interventions. Clinically, the findings have implications for how we view psychosocial assessment within care pathways.

**Keywords:** measurement reactivity; psychosocial assessment; pregnancy; perinatal mental health; qualitative; reflexivity

## **Introduction**

Routine psychosocial assessment has been introduced into antenatal care in several countries; that is, women are asked about their psychological health and wider social circumstances in an endeavour to provide integrated and holistic care (American College of Obstetricians and Gynaecologists, 2006; Austin, 2003; Carroll et al., 2005; National Collaborating Centre for Women's and Children's Health).

The field of psychometrics has long recognised the phenomenon of measurement reactivity; that is, that the process of measurement changes the very thing being measured (Campbell, 1957; Patterson and Sechrest, 1983). Despite this, psychosocial assessment in clinical practice is generally treated as a relatively inert process, handled no differently to physiological measurement. Where questions have been raised, these have generally focused on issues of acceptability (e.g. Buist et al., 2006) rather than the effects of being assessed. Similarly, psychosocial assessment in reproductive psychology research is rarely considered part of an experimental manipulation, instead being used as a way to investigate relationships between constructs or to evaluate the effectiveness of an intervention.

Recently, a resurgence of interest in measurement reactivity has been found in Health Psychology. This debate is focused on two key areas: designing studies that reduce or control for measurement reactivity effects, and designing interventions (usually based on behaviour change techniques) that attempt to capitalise on measurement effects. Possible steps for the former include using unobtrusive measures, using fewer measures, controlling the order of measures, and randomisation to pre-test measures as well as the intervention or control condition (to allow investigation of independent and combined effects of measurement and intervention; French and Sutton, 2010). Using measurement reactivity, sometimes described as “question-behaviour effects” (Dholakia, 2010), to inform intervention development generally uses questionnaires as the basis of behaviour change interventions such as those designed to promote exercise. There is currently however little evidence of successful implementation of measurement effects (e.g. Ayres et al., 2013) and it has been suggested that further research is needed on the sources of reactivity and the mechanisms through which it occurs (French and Sutton, 2010). Furthermore, where research does exist, it has primarily focused on self-completed measures conducted in a research setting. Little is known about reactivity with different methods (e.g. where data were elicited through interviews and focus groups) and in different settings (e.g. clinical practice).

The Assessing and Responding to Maternal Stress (ARMS) study was designed to investigate psychosocial assessment and inform social support interventions for those experiencing maternal stress (Darwin, 2012). This was a mixed methods study. The quantitative element was primarily concerned with the nature and size of the target problem of maternal stress, the lack of consensus on instruments, and observations of current clinical practice. The qualitative element explored: 1) the origins, nature and impact of maternal stress, 2) views and experiences of assessment in clinical practice and using a research questionnaire (undertaken in the quantitative element) and 3) ways of responding to maternal stress, including helpful and potentially helpful social support. This paper presents findings from the qualitative component.

Whilst the study was not designed to address measurement reactivity, the potential for assessment to act as an intervention was one of the study's key findings. This theme emerged through in-depth analysis of women's accounts and reflexivity, i.e. continuous critical reflection on the potential influences of the researcher, including the processes used, assumptions made and conceptual developments (Kock & Harrington, 1998; Sandelowski, 1986).

Through detailed discussion of the theme, the aim of this paper is to illustrate measurement reactivity in the perinatal period and consider the mechanisms through which it occurs, drawing on differences between assessment methods, settings and individuals.

## **Methods**

The research received favourable ethical opinion from the Greater Manchester East Research Ethics Committee (application number 10/H1013/12).

## **Procedure**

Women (n=191) attending their booking visit (first formal antenatal appointment) at a large, inner-city hospital participated in a psychosocial assessment as part of clinical practice and completed a questionnaire, provided by the researcher who was based in the antenatal clinic. Participation was unrestricted by obstetric factors or type of care but was limited to those

women able to provide written informed consent and complete English-language questionnaires unassisted.

Sequential mixed methods sampling was used (Teddlie & Yu, 2007) whereby the qualitative sample comprised women scoring above threshold on at least one of the questionnaire's measures of symptoms of depression and anxiety (Edinburgh Postnatal Depression Scale, Cox, Holden & Sagovsky, 1987; State-Trait Anxiety Inventory state scale, Spielberger, Gorusch & Lushene, 1987; GAD-2, Kroenke et al., 2007) or psychosocial risk factors for postnatal depression (Antenatal Risk Questionnaire, Austin, 2003). This purposive sampling was used to identify cases where the most could be learnt in relation to the research questions (Ritchie, Lewis, & Elam, 2003). Sampling and participant flow is shown in Figure 1.

Women took part in up to three serial in-depth, semi-structured interviews during pregnancy and the early postnatal period. Interviews were audio-recorded, following informed consent, and conducted in the hospital research suite or participant's home, according to preference.

### **Sample characteristics**

Twenty-two women aged 26-39 years (mean 31.7 sd 4.2) took part. The majority were White British (77%) and multiparous (59%). Using the measures cited above, the sample comprised five women who were high on risk only, five high on symptoms only, and 12 high on both risk and symptoms (the majority of which were high on both anxiety and depression). Gestational age was 10-22 weeks at time1 (mean 16 sd 2.8) and 28-36 weeks at time 2 (mean 33 sd 1.7). Postnatal interviews (time 3) occurred 7-13 weeks following delivery (mean 10 sd 1.4).

### **Data management and analysis**

All interviews were transcribed verbatim, using pseudonyms for names and places. The data, including field notes made following each interview and excerpts from a reflective diary, were managed using a combination of NVivo 9 and Excel software and analysed using Framework Analysis (Ritchie & Spencer, 1994; Ritchie, Spencer and O'Connor, 2003).

Framework Analysis involves five systematic stages that promote rigour: familiarisation, identification of a theoretical framework, indexing, charting, and mapping and interpretation (Ritchie & Spencer, 1994). The process of Framework Analysis was iterative, rather than

comprising five sequential stages, and involved successive analyses over several months. Rigour was also achieved through strategies such as prolonged engagement, member checking (through summarising with participants the discussions that occurred during interviews), discussion of possible bias and search for alternative explanations with the supervisory team.

## **Findings**

The interviews had not been designed to measure the effects of assessment; however, the potential for assessment to act as an intervention emerged through women drawing comparisons across the different methods (self-completed questionnaire and interview) and settings (clinical practice and research) when discussing their views and experiences on assessment in clinical practice and the research questionnaire. Several mechanisms were identified by which assessment acts as an intervention; however the extent to which assessment was reactive varied.

### **Reactivity is reduced when assessment is perceived as routine**

Some women did not remember being asked about mental health or mood at booking, suggesting reduced reactivity in clinical practice. This could reflect the volume of questions asked and that, locally, assessment was commonly self-completed without the opportunity for exploration with health professionals:

*“There’s a lot going on and you’re sat there, surrounded by bits of paper. ... It was just, “I need to get this form filled in” [laughs]” (Amanda, t1)*

The extent to which such questions were perceived as 'routine' varied with women's changing circumstances, as Katie described:

*“I don't know that they asked me those questions this time because I – I think I would have felt more about answering them and probably would have tried to avoid answering them. Whereas the first time, I just thought it was routine questions, like you're asked a million questions, and it didn't cross my mind that they would really be interested in how I was feeling ... because I had never had any problems it never crossed my mind that I would be feeling down or, you know anything, about the pregnancy.” (Katie, t1)*

### **Reactivity occurs through self-appraisal**

Assessment was reactive through raising self-awareness and promoting self-appraisal.

Women found it easier to avoid engaging with such processes in clinical practice where self-completed assessment was used:

*“... [there should be] just a few more questions that make you think about it a little bit more rather than just going, oh, I don't talk about that, I'll just tick no.” (Emily, t1)*

Similarly, Hannah described how the interview process elicited disclosures in a way the questionnaire had not; highlighting the potential to access more private accounts:

*“When you fill out a questionnaire, it's how you want to portray yourself or whatever, but things come out when you talk that you don't necessarily think would. You can sort of put on a face with a questionnaire.” (Hannah, t2)*

Nonetheless, some women had embraced self-reflection through the questionnaires:

*“It was good to look at that and reflect on that and how I really had been doing. I'd been trying not to think about it and just get on with stuff.” (Amanda, t1)*

However, some women felt confronted by their distress following the questionnaire, that “wounds were opened up” (Abbie) and they had been “left to worry on their own” (Ruth). In contrast, interview prompts and the nature of the topic guide enabled some women to constructively engage in deeper reflections; for example, through asking women about the nature of their concerns and encouraging them to connect their thoughts, feelings and behaviours as well as identifying their coping strategies. Abbie described how this had been “really useful actually” and “helped to explore” things further, both with the researcher and herself.

### **Reactivity occurs through validation of an individual's experiences and is influenced by the assessor's reactions**

Some women felt that the questions asked in clinical practice showed increasing awareness of maternal stress in pregnancy, which they valued and contrasted with their own or their



sisters' previous experiences of maternity services. Similarly, the research study itself offered a sense of normality and provided reassurance, as Charlotte explained:

*"I was reading through the questions thinking that lots of women may be having the same experiences, similar thoughts, and it just makes you feel like well it's not you either, you know, being weak or not being able to deal with things, it's quite natural. ... it just makes you feel like that you're not going bonkers."* (Charlotte, t1)

Assessment that occurred through interview or consultation offered additional opportunity for validation or indeed stigmatisation. Some women were concerned that disclosing distress could lead to unwanted interference, for example by social services or scrutiny by health professionals, whereas others reported third-party reactions that were negative due to being dismissive:

*"[health visitor] said, "If I didn't know you any better Rebecca, I'd say you've got postnatal depression because you failed it [Edinburgh Postnatal Depression Scale]". She didn't know me any better!"* (Rebecca, t1)

Others responses from health professionals were viewed as more positive. Steph, who had felt that depression was "the worst word in the world", described how her booking midwife had been "amazing" following her endorsement of the depression case finding questions. Similarly, Emily relayed a positive account of her GP's reaction to her maternal anxiety that was described as "normal but important"; that is, acknowledging that the impact of maternal stress can be significant for a woman, and indeed her partner, whilst also providing reassurance that this is not abnormal, or a failure on her part. Although not necessary for all women, as the interviewer, there was the opportunity to convey this message, helping to validate and normalise a woman's feelings and concerns, reducing their anxieties about their psychological distress.

### **Reactivity occurs when assessment acts as a listening visit**

The process of analysis highlighted (quite literally) that with most women the majority of the interaction was spent talking about issues that were important to them and led by them. This was particularly apparent at time 1, where the interview often offered women the first opportunity to 'offload'. Women could readily speak for an hour and appeared to really need

to talk. Some women, even those who were seemingly less forthcoming, commented that this was the first opportunity they had been given to talk about their feelings and experiences:

*“It’s my first time, like, having a one to one chat with somebody, I don’t normally do that. I normally brush off things all the time, but this time I just said, I wanted to say my mind. Just to share sometimes is good.” (Dorothy, t1)*

Similarly, Katie’s comment at time 2 was not expected as she had not always appeared as comfortable in talking about her experiences:

*“Do you think by doing these interviews you change the results a little bit? Because actually talking to somebody if you’re anxious makes you less anxious. Because you’re giving people an opportunity to release any tension [laughs]. And I would say that’s mostly what you need, someone to listen to. That’s not offered.” (Katie, t2)*

Women's accounts showed that they valued interactions where health professionals “really listened” and did not seem to be simply “going through the motions” of psychosocial assessment. Additionally, the research offered continuity that was not available with the midwives and other health professionals who conducted psychosocial assessment in clinical practice. Completely unprompted, Louise described the effect of this ongoing contact:

*“It’s been really nice seeing you. It’s been support in itself doing the questionnaires and just sort of saying it all as it comes into my head. So it’s been a support just doing the research and doing the questionnaires, and having the same face.” (Louise, t3)*

### **Reactivity occurs when assessment induces the individual to seek support**

For some women, assessment embedded in the research had led them to seek support from significant others and/or professionals. At time 1, several women volunteered that they had spoken to their partner about the questionnaire. Hannah emailed the interviewer a few days after the second interview to say that she had asked her midwife to be referred for further support. Ruth said at time 2,

*“I think what triggered getting everything sorted out was actually talking to you about it. ... And I actually went and spoke to a counsellor after I had spoken to you and it’s the most liberating thing I’ve ever done.” (Ruth, t2)*

Ruth and Hannah may have chosen to access such services anyway; however, their comments and actions indicated that the interview had encouraged support-seeking. Reactivity here may have been partly due to the interview asking about current and desired support, and their barriers to accessing support. Additionally, both women had wanted to know how their experiences compared with those of other women, seemingly legitimising the seeking of professional support and the researcher had offered signposting to appropriate services.

## **Discussion**

The aim of this paper was to examine the phenomenon of measurement reactivity in the context of perinatal psychosocial assessment. Analysis of women's accounts identified that reactivity occurred through raising self-awareness and encouraging self-management strategies. Women experiencing stress could 'offload' their concerns and those with anxieties about their psychological distress could take reassurance from having their experiences validated; however these mechanisms were partly dependent on the interaction with the assessor. Women commonly engaged with self-appraisal, validating their own experiences, and some initiated strategies such as seeking support from significant others and/or professionals.

In some circumstances, the process of psychosocial assessment was relatively passive. Women's descriptions suggested that this was more likely when assessment was perceived as routine antenatal care, with little attention afforded to it, and that this could change with a woman's changing circumstances, highlighting the significance of context.

Taking part in the research provided participants with validation and acceptance of their experiences; an observation noted elsewhere (McGowan, Luker, Creed & Chew-Graham, 2007). For some, the very existence of psychosocial assessment, regardless of the method or setting, acted as an intervention by legitimising women's feelings and providing validation and normalisation of their experiences, consistent with literature on clinical use of the Edinburgh Postnatal Depression Scale (Cox & Holden, 2003).

For others, psychosocial assessment required that they confront their distress, causing further distress by preventing the use of denial which, particularly in the short-term, may offer adaptive coping (Jerry & Fletcher, 1985). Thus, if psychosocial assessment is to be implemented as an effective intervention, some women need it to be guided or accompanied by further support. The research interviews appeared to meet this need for some women in the ARMS study.

Physical and psychological health improvements follow expressive writing about emotional experiences (Pennebaker, 1997). It is therefore possible that the interview setting elicited greater reactivity due to greater detail, rather than the human interaction. However, detailed transcription demonstrated signs of the researcher being a “supportive and engaged listener” (Lambertz, 2011), suggesting similarities between the interviewer style and interventions such as listening visits, which have been recommended for the pregnant population (Clement, 1995; National Collaborating Centre for Mental Health, 2007). Transcription also demonstrated ‘empathic receipts’ to women's distress, which is critical given women's potential fears of labelling and unwanted professional involvement in the perinatal period (McIntosh, 1993).

Greater reactivity of interviews may have arisen by encouraging women to connect their thoughts, feelings and behaviours; this shares characteristics with cognitive behavioural therapy which is effective in the prevention and treatment of common mental health disorders (Hollon, Stewart, & Strunk, 2006) and may have application in the perinatal population. Additionally, asking women about helpful and potentially helpful social support could potentially influence their coping and asking women about their barriers to accessing support may share overlap with approaches such as motivational interviewing (Rollnick & Miller, 1995).

Greater reactivity in the research as opposed to clinical context may be informed by reframing the interviews with a ‘support transactions’ lens (Shumaker & Brownell, 1984). Here, support received through the research would be less ‘visible’ (Bolger, Zuckerman & Kessler, 2000) due to having fewer costs of support seeking and support acceptance than, for example, accessing counselling or contacting a health professional. Reasons include greater reciprocity (due to the participant helping others through participation in research) and that

the focus of the research concerned ‘maternal stress’ which is likely to be less stigmatised than the focus in clinical practice on ‘mental health’.

### **Implications for research**

Assessment acting as an intervention raises implications for the ethical aspects of research conduct and validity of research findings. As is required in therapeutic settings such as counselling, researchers should be skilled and appropriately supervised, to ensure opportunities for debriefing, noting the blurring of boundaries and helping with signposting (Dickson-Swift, James, Kippen & Liamputtong, 2008).

Although necessary from an ethical perspective, aspects of interviewing such as empathetic responses, providing reassurance and signposting to services are likely to promote reactivity. Such measurement effects may be considered problematic a) in observational studies where the natural trajectory of the phenomenon being studied (e.g. psychological distress in the perinatal period) is potentially confounded with assessment and b) in experimental studies where an intervention and its evaluation are potentially confounded.

In such situations, it is important to consider strategies that may minimise reactivity. Strategies recommended elsewhere have focused on quantitative data collection and primarily self-completed measures, for example, controlling the order of measures or using a Solomon design to randomise to pre-test measures as well as intervention conditions (e.g. French and Sutton, 2010). Strategies to minimise reactivity of qualitative assessment could include: the use of a more structured interview schedule, the use of telephone interviews and the use of multiple researchers for longitudinal research. Possible effects should also be examined through reflexivity, which was promoted here by comparing assessment across different methods and settings, and deep engagement through the transcription process and field notes. Such strategies are not only key to achieving rigour; dissecting the role of the research(er) can inform future intervention development by postulating the mechanisms through which change is achieved.

### **Implications for practice**

Booking visits are viewed as an opportunity to gather information that informs subsequent care pathways. Treating psychosocial assessment as a neutral information-gathering exercise that happens independently of a care pathway does not capitalise on the opportunity for early

intervention and additionally risks unwanted and unanticipated effects. Assessment offers an opportunity for midwives and other health professionals to shape women's understandings of maternal stress, self-appraisal, future disclosures and support-seeking behaviours. This can happen both through explicit information provision and through demonstrating core communication skills such as empathy and active listening, which are fundamental in psychological therapies (Cape, Barker, Buszewicz & Pistrang, 2000). Often women are accompanied to the booking visit by their partner, friend or family member and it is therefore also an opportunity to provide information to the woman's potential support network and mobilise support. There is thus a need for the training of health professionals to develop these core skills and support to implement such skills, for example by considering the time allocated to consultations.

### **Limitations and extending the findings beyond the sample**

Although qualitative research does not have the same need for representativeness, it is important to acknowledge the views that are being represented. The findings are based on clinical assessment at one tertiary unit and interviews with one researcher. Furthermore, interviews were limited to women with high levels of maternal stress (as defined by the chosen measures) who volunteered to take part in serial in-depth interviews; a group where measurement reactivity may be most likely.

### **Conclusions**

Psychosocial assessment in a perinatal context should not be treated as a non-reactive process. The potential for assessment to act as an intervention requires consideration in both research design and analysis. Clinically, assessment should be considered an opportunity for early intervention rather than treated solely as a test on which to determine appropriate care pathways.

### **Acknowledgements**

This doctoral research was supported by a University of Manchester Strategic Studentship Award, receiving funding from the Medical Research Council and Tommy's Baby Charity. The research could not have happened without the women who shared their experiences.

## References

- American College of Obstetricians and Gynecologists. (2006). Psychosocial risk factors: Perinatal screening and intervention. ACOG Committee Opinion Number 343. *Obstetrics and Gynecology*, 108, 469-477.
- Austin, M. P. (2003). Psychosocial assessment and management of depression and anxiety in pregnancy: Key aspects of antenatal care for general practice. *Australian Family Physician*, 32, 119-126.
- Ayres, K., Conner, M., Prestwich, A., Hurling, R., Cobain, M., Lawton, R., & O'Connor, D.B. (2013) Exploring the question-behaviour effect: Randomised controlled trial of motivational and question-behaviour interventions. *British Journal of Health Psychology*, 18, 31-44.
- Bolger, N., Zuckerman, A., & Kessler, R.C. (2000) Invisible support and adjustment to stress. *Journal of Personality and Social Psychology*, 79(6), 953-961.
- Buist, A., Condon, J., Brooks, J., Speelman, C., Milgrom, J., Hayes, B., Ellwood, D., Barnett, B., Kowalenko, N., Matthey, S., Austin, M-P., & Bilszta, J. (2006) Acceptability of routine screening for perinatal depression. *Journal of Affective Disorders*, 93(1), 233-237.
- Campbell, D.T. (1957) Factors relevant to the validity of experiments in social settings. *Psychological Bulletin*, 54(4), 297-312.
- Cape, J., Barker, C., Buszewicz, M., & Pistrang, N. (2000) General practitioner psychological management of common emotional problems (II): A research agenda for the development of evidence-based practice. *British Journal of General Practice*, 50, 396-400.
- Carroll, J. C., Reid, A. J., Biringer, A., Midmer, D., Glazier, R. H., Wilson, L., Permaul, J.A., Pugh, P., Chalmers, B., Seddon, F., & Stewart, D.E. (2005). Effectiveness of the antenatal psychosocial health assessment (ALPHA) form in detecting psychosocial concerns: A randomized controlled trial. *Canadian Medical Association Journal*, 173(3), 253-259.

Clement, S. (1995). 'Listening visits' in pregnancy: A strategy for preventing postnatal depression? *Midwifery*, 11, 75-80.

Cox, J., & Holden, J. (2003). *Perinatal mental health: a guide to the Edinburgh Postnatal Depression Scale (EPDS)*. London: Gaskell.

Cox, J., Holden, J., & Sagovsky, R. (1987). Detection of postnatal depression: Development of a 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 150, 782-786.

Darwin, Z. (2012). *Assessing and Responding to Maternal Stress (ARMS): Antenatal Psychosocial Assessment in Research and Practice*. Unpublished doctoral dissertation, University of Manchester, UK.

Dholakia, U. M. (2010). A critical review of question-behavior effect research. *Review of Marketing Research*, 7, 147-199.

Dickson-Swift, V., James, E.L., Kippen, S., & Liamputtong, P. (2008). Risk to researchers in qualitative research on sensitive topics: Issues and strategies. *Qualitative Health Research*, 18(1), 133-144.

French, D.P. & Sutton, S. (2010). Reactivity of measurement in health psychology: How much of a problem is it? What can be done about it? *British Journal of Health Psychology*, 15, 453-468.

Hepburn, A. (2004). Crying: Notes on description, transcription, and interaction. *Research on Language and Social Interaction*, 37(3), 251-290.

Hollon, S. D., Stewart, M. O., & Strunk, D. (2006). Enduring effects for cognitive behavior therapy in the treatment of depression and anxiety. *Annual Review of Psychology*, 57, 285-315.

Jerry, S., & Fletcher, B. (1985). The relative efficacy of avoidant and nonavoidant coping strategies: A meta-analysis. *Health Psychology*, 4(3), 249-288.



Kock, T. & Harrington, A. (1998) Reconceptualizing rigour: The case for reflexivity. *Journal of Advanced Nursing*, 28(4), 882-890.

Kroenke, K., Spitzer, R. L., Williams, J. B. W., Monahan, P. O., & Lowe, B. (2007). Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Annals of Internal Medicine*, 146, 317-325.

Lambertz, K. (2011). Back-channelling: The use of yeah and mm to portray engaged listenership. *Griffith Working Papers in Pragmatics and Intercultural Communication*, 4(1/2), 11-18.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

McIntosh, J. (1993) Postpartum depression: Women's help-seeking behaviours and perceptions of cause. *Journal of Advanced Nursing*, 18, 178-184.

McGowan, L., Luker, K., Creed, F., & Chew-Graham, C.A. (2007). 'How do you explain a pain that can't be seen?': The narratives of women with chronic pelvic pain and their disengagement with the diagnostic cycle. *British Journal of Health Psychology*, 12, 261-274.

National Collaborating Centre for Mental Health. (2007). *Antenatal and postnatal mental health. The NICE guideline on clinical management and service guidance*. Leicester: The British Psychological Society and The Royal College of Psychiatrists.

National Collaborating Centre for Women's and Children's Health. (2008). *Antenatal care: Routine care for the healthy pregnant woman*. London: RCOG Press.

Patterson, D.R. & Sechrest, L. (1983). Nonreactive measures in psychotherapy outcome research. *Clinical Psychology Review*, 3, 391-416.

Pennebaker, J. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8, 162-166.

Ritchie, J., Lewis, J., & Elam, G. (2003). Designing and selecting samples. In J. Ritchie & J. Lewis (Eds.), *Qualitative Research Practice*. (pp. 77-108). London: Sage.

Ritchie, J. & Spencer, L. (1994) Qualitative data analysis for applied policy research. In A. Bryman & R. G. Burgess (Eds.) *Analyzing qualitative data*. (pp.172-194). London: Routledge.

Ritchie, J., Spencer, L., & O'Connor, W. (2003). Carrying out qualitative analysis. In J. Ritchie & J. Lewis (Eds.), *Qualitative Research Practice*. (pp. 219-262). London: Sage.

Rollnick, S., & Miller, W. R. (1995). What is motivational interviewing? *Behavioural and Cognitive Psychotherapy*, 23(4), 325-334.

Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Science*, 8, 27-37.

Sechrest, L. & Phillips, M. (1979) Unobtrusive measures: An overview. *New Directions for Methodology of Behavioral Sciences*, 1, 1-17.

Shumaker, S.A., & Brownell, A. (1984) Toward a theory of social support: Closing conceptual gaps. *Journal of Social Issues*, 40(4), 11-36.

Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1987). *The State-Trait Anxiety Inventory: Test Manual*. Palo Alto: Consulting Psychological Press.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1, 77-100.

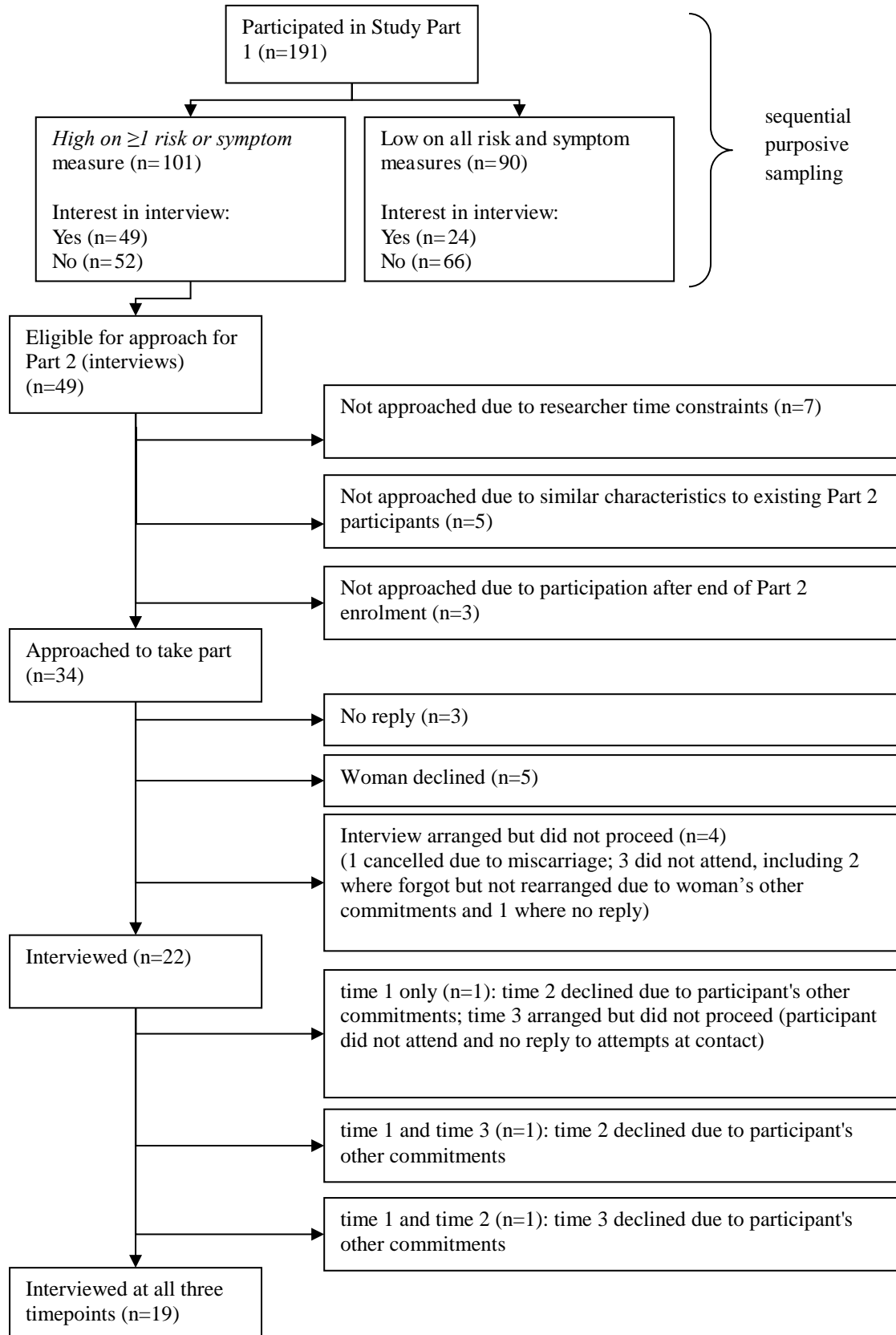


Figure 1 Participant flow