The limerick lullaby project: an intervention to relieve prenatal stress.
(Research Unwrapped)
Wray, J

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The limerick lullaby project: an intervention to relieve prenatal stress

Julie Wray unwraps a recent research paper which assesses the value of singing in pregnancy and the perinatal period

With the festive period looming I felt that the topic of this paper 'singing lullabies' resonated with the custom of singing at Christmas time, but more than that, the joy and peace of singing, regardless of the festivity, is far reaching. I am not a singer (I wish I was) but people who do sing tell me how happy it makes them feel. There can be no doubt that singing is synonymous with a sense of wellbeing and good health. Indeed, Carolan et al provide extensive supporting literature of the positive effects of maternal singing and music therapy on infants and note the benefits to preterm infants within their paper (Carolan et al 2011: 2). So I present to you for this Research Unwrapped, a detailed appraisal of this paper alongside a warm gesture of respect for those of you who can sing!

Research Unwrapped is a popular bi-monthly series to help readers make sense of published research by undertaking a detailed appraisal in a logical manner. In doing so we are seeking to advance your knowledge and understanding of the research topic as well as the skill of evaluating research. Critical appraisal is fundamentally the process of weighing up the evidence to see how useful it is in decision-making and whether it can be applied to practice.

Background and principles to unwrapping research

The research method selected by Carolan et al (2011) is qualitative, so it is important to understand this type of research from the outset. The well established Critical Appraisal Skills Programme (CASP) in Oxford offers easy to understand information and useful appraisal tools to facilitate research appraisal/critique. In my teaching experience, student feedback concerning these resources is positive with both undergraduate and postgraduate students. CASP suggests that there are three broad areas that need to be considered when appraising the reporting of any - but in this case qualitative - research:
Rigour: has a thorough and appropriate approach been applied to key research methods in the study?
Credibility: are the findings well presented and meaningful?
Relevance: how useful are the findings to you and your organisation?

There are a number of guiding research appraisal frameworks available in the literature (such as CASP (2011)) or Introduction, Method, Research and Design (IMRAD) (Day 1989), but regardless of the framework you prefer to use, the following stages need to be considered, as informed by both Crombie (1996) and Wickham (2006):

Is it research?
What is the research design (may influence the type of appraisal tool)?
Read, read and read again!
Break it down.
What are the strengths and weaknesses?
What is it telling you?
Trustworthiness?
Relevance?

Looking in detail at the research
In the first instance, I always start by examining the abstract, highlighting key words before reading the whole paper. It is a worthwhile and informative first step and I recommend that you take some time to assess research abstracts. In this way you start to ask some preliminary questions about the study generally, but also it helps you to decide if this is a research paper that needs to be read in more depth; in other words whether a full and detailed critique is necessary.

Returning to the appraisal in some detail, the following broad headings are used to structure my critique as they best reflect the key questions posed by Crombie (1996), Wickham (2006) and CASP (2011) as follows.

Background
In this section the authors are expected to provide a reliable and succinct overview of the literature in support of the purpose for undertaking the research study. Carolan et al do provide a clear section covering relevant literature and previous research from disciplines such as psychology, psychiatry, sociology, obstetrics (medicine), midwifery, epidemiology and music. The background demography of the geographical area in which the study is located (Limerick, Ireland) is contextualised, telling us how financial stress or rising unemployment escalate the risks of maternal stress. They make obvious associations between stress, anxiety and depression in relation to childbirth and the psychological benefits of music therapy. The need and desire to offer non-pharmacological therapy so as to avert negative impacts of treatments for stress and anxiety in pregnancy upon the developing fetus are well explained. Of interest is the emerging evidence of the benefits of singing and music therapy on infants, maternal infant attachment and maternal stress, and of note in the authorship of the paper is an academic of music and dance. This section concludes with the aim of the study: to explore the impact of a programme of singing and playing lullabies in an Irish setting and whether such a programme would be acceptable to women and show benefits for both mothers and infants.

Methods
(including sample, study setting, data...
collection/analysis and ethical issues
Being able to judge whether the
cast of the study (the right methods
and people) fits with its purpose (Long
2002, Polit and Beck 2008), lies in this
section of the report. Carolan et al’s
recruitment strategy was directed at
primiparous women over 18 years with
an uncomplicated singleton pregnancy,
decisions which are not fully explained.
There are reflective points in the
discussion section concerning the
recruitment, which mainly refer to low
uptake to participate. Women were
recruited from antenatal classes at the
Regional Maternity Hospital in Limerick
(no details of size or births per annum
at this unit are provided). In total six
women participated in the study,
despite 40 women declaring an
interest. Ethical approval was obtained
by the hospital and university ethics
committees.
The study hinged upon women
attending a series of four group singing
sessions where they learnt three
lullabies and were encouraged to
practise singing at home.
Data were collected via face to face
interviews ‘approximately’ three
months post partum, and focused on
the experience and value of learning to
sing lullabies in pregnancy. It would
have been useful to know what
‘approximately’ meant and some
insights into the frequency or patterns
of singing that women adopted. That
said, the researchers provide the
questions used in each interview. Brief
information about data analysis using
Burnard’s steps (Burnard 1991) is
outlined.
I always recommend to students that
questions about the methods and
analysis be emailed to the author as I
find most are happy to assist and offer
further information.

Findings
Carolan et al display a table showing
the characteristics of the six
participants, who were above average
age for primiparous women in Ireland
at 29.7 years, five of the six were
employed and all were well educated
to tertiary level). Once again in the
discussion section, reflective points are
made regarding the homogeneity of the
participants - good practice in
qualitative research reporting. Analysis
revealed four broad themes outlined:
connection, communication, stress
reduction and confidence building and
fetal attachment. Each theme is then
explained with relevant direct
quotations from women by way of
providing primary evidence in support
of the theme. The authors’ overall
message in this section is that the aim
of the study was achieved; moreover
they claim that benefits extended
beyond their intentions. For example,
women described how singing lullabies
in the early postpartum period
facilitated infant attachment, helped
settle infants and acted as a source of
relaxation.

Discussion
This section is refreshing as the authors
provide a substantive, honest and reflective discussion with supporting literature. They acknowledge that recruitment was a disappointing feature and that the nature of the six women who participated, limiting. Overall they feel convinced that they have provided further evidence that a programme of singing lullabies enables pregnant women and new mothers to feel calm and improve attachment and bonding, thus having scope to reduce maternal stress. I would urge you to read this paper in full, draw your own conclusions, but realise that scope does exist to promote singing in pregnancy and in motherhood for positive benefits.

Readability and relevance
I found the paper readable with a good, logical flow and easy style of writing. The topic is relevant; encouraging mothers to engage in such a singing programme is easy, low in cost and fun! As Caralon et al note, the programme is low risk by design, with no negative impacts and potentially huge benefits to mother and infant. TPM

References