

Quality of life outcomes' in early motherhood in Austria

–The impact of internal and external resources

Eva MAUTNER¹⁾

(Received 2014.2.10)

The aim of this paper is to provide results of two studies, which were conducted in Austria to examine the impact of internal and external factors on quality of life and depressive symptoms in early motherhood.

In general early motherhood may be a critical life event for a woman and their partner and can lead to decreased well-being. Emotional aspects such as depression affects not only the quality of life of the mothers but also her new-born child, her other children, partner and relatives. In our studies we investigated the impact of pregnancy diseases, psychosocial factors and resilience on quality of life outcomes and depressive symptoms in early motherhood in Austria. We found that external resources e.g. social support from the partner and relevant others, the economic background, preterm birth, the health of the child and internal resources like a lack of fear or depressive symptoms in pregnancy and resilience had a positive impact on the quality of life of mothers in early motherhood.

The identification of risk factors and resources are important to support mothers. Women will benefit from external support systems and from the support of their partner. The well-being can be improved by educational interventions on common responses and coping strategies in early motherhood. This will have a positive impact on the development of the child and the well-being of the whole family. Learning processes are necessary for mothers and fathers to cope with the new situations in early motherhood.

Key words: learning of mothers, quality of life, early motherhood, support

1. Introduction

Quality of life (QoL) is a useful concept measuring the health state experienced by women. It has become recognized and established as an outcome variable and health status indicator in medical and public health research. Quality of life is an “individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns” (WHO QOL Group 1995). The concept of QoL is based on the WHO definition of health that describes ‘health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.’ The main dimensions of quality of life

are perceived physical health, psychological well-being and social relationships. The concept of QoL is multidimensional and can include additional areas such as environmental factors or level of independence. Quality of life consists of the relative importance or meaning attached to each particular dimension and the extent of the person's enjoyment with respect to each dimension. In this way quality of life is adapted to the lives of all humans, at any time, and from their individual perspectives.

In Austria most births takes place in hospitals. The birth rate in Austria has been quite stable during the last years. Currently there are 1.4 children per woman. The average age of fertility is 30.02. This has been rising in the last few years. In Austria, the average age of mothers at first birth is 28.7 (Statistik

1) Medical University Graz, Visiting Associate Professor at Hiroshima University Graduate School of Education, Department of Learning Science (Oct.2013 – Mar.2014)

Austria 2012). Compared to the average age of mothers in Japan (29.2 at first birth) this is quite similar. The rate of 1.4 children per woman is also similar to Japan (World Bank, 2012). 67.3 percent of Austrian women are employed. In Japan the employment rate of women is 60.7 percent. There are large differences across OECD countries regarding the share of children born outside marriage: approximately two percent of Japanese couples are not married compared to 38 percent of Austrian couples who are not married at the birth of their child.

Generally mothers receive 16 weeks maternity leave in Austria, which has to be taken before and after the child's birth. Parents may also take up to three years supported parental leave, if both parents take at least six months. Austria is a federal state with nine provinces, each with its own government. Each province has full responsibility for social welfare and early childhood education and care. Austrian children can receive early childhood education in nurseries under the age of three. These are mainly day-care centers. Children can attend kindergarten from the age of three to five. This is the traditional form of pre-primary education in Austria. More rarely, children go to private child-minders and attend playgroups (Greimel 2010).

Pregnancy, birth and the postpartum period lead to physiological, emotional and social changes and may be critical life events for a woman. Emotional aspects such as mood disturbances and postnatal depression affect not only the quality of a woman's life and her experience of motherhood but also her newborn child, her other children, partner and relatives (Cox et al 2003). Postnatal depression is reported to occur in 10 to 20% of all childbearing women (Pope 2000, Matthey 2003, Hagan 2004) and it has an impact on the development of the child. The term 'postnatal depression' is commonly used to describe a sustained depressive disorder in women following childbirth; the condition is characterized by low, sad mood, lack of interest, anxiety, sleep difficulties, reduced self-esteem, somatic symptoms such as headache and weight loss, and difficulty coping with day-to-day tasks (Cox and Holden, 2003). The term was used first in 1980 to describe a sustained depressive disorder

occurring in women in the first year after childbirth (Wellburn, Oakly 1980). Research over the past 10 years, has increasingly revealed that depression is a negative outcome of childbirth for women in diverse countries and cultures. Adverse effects on the mother-infant relationship and the feelings of both mother and baby are well documented. Mothers with depression were less sensitively attuned to their infants and were less affirming and more negating of infant experience (Murray et al, 1996). In children 3 ½ years of age and beginning school, both postnatal and more recent maternal depression were associated with significantly raised levels of child disturbance, particularly among boys and those from lower social class families. These unwanted effects persist even longer. Hay et al (2001) found that 11-year-old children, especially boys, had significant lower IQ scores, more problems with their attention and reading, greater difficulties in mathematical reasoning and were more likely to have special educational needs than children of mothers who had not had post-partum depression.

Early parenthood is known as a period of transition and learning. Especially women are confronted with new tasks and have to adapt to the new situation. Quality of life research can help to identify risk factors and leads to possibilities to improve the well-being of mothers and their families.

2. Quality of life Outcomes Studies in early Motherhood in Austria

2.1 The impact of medical and psychological factors on QoL and depressive symptoms in early motherhood

In a longitudinal study we investigated the impact of psychosocial factors and three major pregnancy diseases (pregnancy induced hypertension, gestational diabetes, preterm birth compared to a normal group) on QoL and depressive symptoms in early motherhood. The study was conducted at the Medical University Hospital of Graz (Mautner et al 2009, 2010). Pregnant women between 24 and 37 weeks of gestation with sufficient German language skills who planned to deliver at this clinic were recruited to take part in this questionnaire

survey. Exclusion criteria were illiteracy and severe mental impairment. Assessments were made during three periods: First between the 24 and 37 week of gestation, second between the second and the fifth day postpartum, and third between three and four months postpartum. A total of 112 women participated.

Measures:

Two validated questionnaires were used to measure QoL and mood disturbance, the WHO-QOL Bref and the Edinburgh Postnatal Depression Scale (EPDS).

The WHO QOL-BREF, a 26-item short version of the WHOQOL-questionnaire, was used to measure QoL. The WHO QOL-BREF is a cross-culturally valid generic questionnaire which measures four specific domains of QoL: physical, psychological, social and environmental domains and a global QoL scale (Angermeyer et al 2000, The WHO Group, 1994). This instrument was developed simultaneously in more than 15 cultural settings. It can be used to assess variations in QoL across different cultures, to compare subgroups within the same culture, and to measure changes across time in response to changes in life circumstances. This instrument conceptually fits with the WHO definition of health and QoL. It is a self-report questionnaire including 26 items grouped into four domains (physical health, psychological well-being, social relationships and environment).

The EPDS was used to measure mood disturbances. It is a screening instrument for postnatal depression and was validated in 18 countries. The EPDS is a specific scale for use during pregnancy and in the postpartum period for screening depression. A cut-off score of 10/11 is recommended in German-speaking countries to detect almost all cases of depression, with very few false negatives (Muzik, 2000). A Japanese Version is available. A cut-off score of 8/9 was recommended for the Japanese Version (Okano et al. 1998).

Example questions of the EPDS:

7. 不幸せなので、眠りにくかった。
はい、ほとんどいつもそうだった
はい、ときどきそうだった

いいえ、あまり度々ではなかった
いいえ、全くなかった

German: Ich war so unglücklich, dass ich nur schlecht schlafen konnte.

8. 悲しくなったり、惨めになった。
はい、たいていそうだった
はい、かなりしばしばそうだった
いいえ、あまり度々ではなかった
いいえ、全くそうではなかった

German: Ich habe mich traurig oder elend gefühlt.

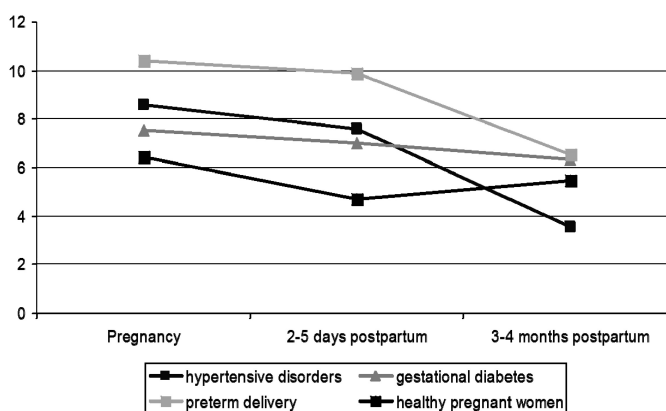
Why is a lower cut-off score for Japanese women recommended? In some cultures, e.g. Japan, women tend to express emotional problems by referring to physical (somatic) problems or concerns for the baby rather than expressing their feelings when they are depressed. The EPDS does not contain any somatic items which might raise practical problems if the dominant way in which depression presents is a physical or somatic symptom (Department of Health, Western Australia 2006).

Results:

The impact of pregnancy diseases

Firstly, we examined the impact of pregnancy diseases on quality of life and depressive symptoms and found that the preterm group (followed by the hypertensive disorders group) had statistically significant higher depression scores compared to healthy pregnant women (shown in Figure 1). Females with hypertensive disorders had the second most depressive symptoms. Additionally we found that women with a preterm delivery had lower QoL scores on the physical domain in pregnancy compared to women without complications (not shown in Figure 1). Physical and global QoL and depressive symptoms improved significantly from late pregnancy and early postpartum period to late postpartum (Mautner 2010).

Figure 1 The impact of pregnancy diseases on depressive symptoms



*Higher scores indicate more depressive symptoms

The impact of psycho-social factors

Secondly, we investigated the three time points separately (pregnancy, 2 to 5 days postpartum and 3 to 4 months postpartum) and looked at the impact of pregnancy diseases and psychosocial factors.

- In pregnancy risk factors for decreased quality of life were poor social support from the partner and important others (friends and relatives), an unwanted pregnancy and a poorer financial situation.

- From the second to the fifth day postpartum, risk factors for depressive symptoms were depressive symptoms in pregnancy, an early week of gestation at birth and fear of labor pain in pregnancy.

- Three to four months postpartum, risk factors for depressive symptoms and decreased quality of life were depressive symptoms in pregnancy, poor social support, a poor financial situation, migration and a poorer health status of the child (Mautner, 2009).

2.2 The impact of resilience in early motherhood

In another study we investigated the influence of resilience as an internal resource in a group of women after a severe pregnancy disorder called preeclampsia (PE). PE is not only the most frequent obstetric complication of pregnancy (reported incidence of approximately 10 %), it is also one of the three leading causes of maternal morbidity and mortality worldwide. It seriously affects the mother's and also the fetus' health. PE and related disorders,

such as HELLP syndrome and Eclampsia, are most often characterized by a rapid rise in blood pressure that can lead to seizure, stroke, multiple organ failure and death of the mother and/or the baby. In one study we showed that the severity of the disease has an impact on the quality of life of mothers (Stern et al 2013).

Definition of Resilience:

Wagnild & Young (1993) postulated a two-dimensional structure of resilience formed by two factors: "Acceptance of Self and Life" and "Personal Competence". Resilience is defined as the ability to successfully withstand a threatening and challenging situation. It also refers to recovery from extreme distress and trauma. From a conceptual perspective, resilience is associated with curiosity and intellectual skills and the ability to cope with problems. It also applies to the capacity to mobilize resources (Agabi & Wilson 2005). Friberg regards resilience as a construct comprising various dimensions. The concept refers not only to psychological skills, but also to the possibilities for the individual to take advantage of family, social and external support systems in order to cope better with stress. Generally speaking, resilient people are more flexible than vulnerable people, and they protect themselves against stress by making use of various protective resources. These resources may be internal or external. In various investigations protective resources were classified as psychological-internal

characteristics, support from family and friends and external support systems (Friborg et al 2003). Rutten et al (2013) found three important psychological building blocks of resilience: secure attachment in childhood, experiencing positive emotions and having a purpose in life.

Method:

The impact of resilience was examined in a group of 67 women from 1 to 4 years after preeclampsia. All had 1 to 4 children. Some of them were pregnant again. We used a 13-item German questionnaire (RS-13) to measure resilience (Leppert et al 2008). The RS-13 is the short German version of the RS-25 from Wagnild & Young (1993). Two groups of women with high and low resilience were generated based on reference values. These two groups of women were compared regarding QoL and depressive symptoms. The German (SF-12) was used to evaluate the physical and mental QoL. It is the most widely used and standardized instrument to determine self-assessed QoL in self-or interviewer administration. The EPDS was used to measure depressive symptoms. The questionnaires were used, because it can be carried out easily in daily clinical routine.

Results:

Women with higher resilience showed a significant better mental health state and significant lower depressive symptoms as measured by the EPDS in the first four years after childbirth. The mean depression score of women with less resilience (M=11.5, SD=6.2) was above the cut-off score of 10

for Austria, indicating more depressive symptoms for women with low resilience following Preeclampsia (see also Mautner et al 2013) (shown in table 1).

3. Conclusions:

Many internal and external factors have an influence on the well-being of mothers. External resources are e.g. social support, the economic background, preterm birth and the health of the child. Internal resources may be a lack of fear or depressive symptoms in pregnancy. Additional resilience is a protective variable indicating low levels of depression and better mental quality of life.

The identification of risk factors and resources are important to support mothers. Women will benefit from external support systems. The well-being of mothers can be improved by educational interventions on common responses and adaptive reactions in early motherhood. Consequently women can get more personal competence and gain self-control over their problems. Psycho-educational interventions about coping strategies will improve quality of life and reduce depressive symptoms.

In early motherhood especially women are confronted with new tasks and have to adapt to the new situation. External support systems are important to improve the wellbeing of mothers, the mother-child relationship and will have a positive impact on the development of the child. Learning processes are necessary to cope with the new situations in early motherhood.

Table 1: Physical and mental quality of life and depressive symptoms (EPDS) in women with low and high resilience after preeclampsia

	Low resilience (n = 27)	High resilience (n = 40)		
	<i>M ± SD</i>	<i>M ± SD</i>	<i>p</i>	<i>Eta²</i>
Physical QoL*	47.5 ± 9.2	48.1 ± 7.5	0.78	0.00
Mental QoL*	40.8 ± 12.7	49.9 ± 10.3	<0.01	0.14
EPDS**	11.5 ± 6.2	6.8 ± 5.1	<0.01	0.15

*Higher scores in the QoL domains indicate better quality of life

**Higher scores in the EPDS indicate more depressive symptoms

References:

- Agaibi CE, Wilson JP: Trauma, PTSD and Resilience. A review of the literature. *Trauma, Violence & Abuse* 2005, 6:195-216.
- Angermeyer MC, Kilian R, Matschinger H. WHOQOL-100 und WHOQOL-BREF. Handbuch für die deutschsprachige Version der WHO Instrumente zur Erfassung von Lebensqualität. Göttingen – Bern – Toronto – Seattle: Hogrefe 2000.
- Cox J, Holden J. Perinatal mental health. A guide to the Edinburgh postnatal depression scale (EPDS). Postnatal depression: an overview. London: The Royal College of Psychiatrists, 2003:1-14.
- Cox J, Holden J. Perinatal mental health. A guide to the Edinburgh postnatal depression scale (EPDS). The origins and development of the Edinburgh Postnatal Depression Scale. London: The Royal College of Psychiatrists, 2003:15-20.
- Department of Health. Government of Western Australia. Using the Edinburgh Depression Scale. Translated into other languages than English. 2006.
- Friborg O, Hjemdal O, Rosenvinge JH, Martinussen M: A new rating scale for adult resilience: what are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research* 2003, 12:65-76.
- Greimel E. Early Childhood Education and Care in Austria. Yearbook Hiroshima University 2010.
- Hagan R, Evans SF, Pope S. Preventing postnatal depression in mothers of very preterm infants: a randomised controlled trial. *BJOG* 2004;111:641-47.
- Hay DF, Pawlby S, Shapr D, Asten P, Mills A, Kumra R. Intellectual problems shown by 11-year-old children whose mothers had postnatal deression. *Journal of child psychology and psychiatry*, 2001, 42(7),871-889.
- Matthey S, Barnett B, Howie P, Kavanagh J. Diagnosing postpartum depression in mothers and fathers: whatever happened to anxiety? *J Affect Disord* 2003;74:139-47.
- Mautner E, Greimel E, Trutnovsky G, Egger JW, Lang U. Quality of life outcomes in pregnancy and postpartum complicated by hypertensive disorders, gestational diabetes and preterm birth, *J Psychosom Obstet Gynecol* 2009;30:231-237.
- Mautner E, Greimel E, Trutnovsky G, Egger JW, Lang U. Pre- und postpartale Risikofaktoren für die Lebensqualität, *Geburtsh Frauenheilk* 2010;70:298-303.
- Mautner E, Stern C, Deutsch MT, Nagele E, Greimel E, Lang U, Cervar-Zivkovic M. The impact of resilience on psychological outcomes in women after preeclampsia: an observational cohort study. *Health and Quality of Life Outcomes* 2013;11:194.
- Muzik M, Klier CM, Rosenblum KL, Holzinger A, Umek W, Katschnig H: Are commonly used self-report inventories suitable for screening postpartum depression and anxiety disorders? *Acta Psychiatr Scand* 2000,102(1),71-73.
- Murray D, Cox JL. Screening for depression during pregnancy with the Edinburgh Postnatal Depression Scale (EPDS). *J Reprod Infant Psychol* 1990,8:99-107.
- Leppert K, Koch B, Brähler E, Strauß B. Die Resilienzskala (RS) – Überprüfung der Langform FS-25 und einer Kurzform RS-13. *Klin Diagnostik u. Evaluation* 2008,1:226-243.
- Oakley A, *Women Confined: Towards a Sociology of childbirth*. Oxford: Martin Robertson. 1980
- Okano T, Nagata S, Hasegawa M, Nomura J & Kumar R. (1998). Effectiveness of antenatal education about postnatal depression: a comparison of two groups of Japanese mothers. *Journal of Mental Health (UK)*, 7, 191-198. 29
- Pope S, Watts J, Evans SF, McDonald SJ, Herderson J. Postnatal depression: a systematic review of published scientific literature to 1999 (Information Paper). Canberra: Commonwealth of Australia National Health and Medical Research Council, 2000.
- Rutten BPF, Hammels C, Geschwind N, Menne-Clouthmann C, Pishva E, Schruers K, van den Hove D, Kenis G, van Os J, Wichers M: Resilience in mental health: linking psychological and neurobiological perspectives. *Acta Psychiatr Scand* 2013, 128:3-20.
- Statistik Austria, Rohe Geburtenrate, Gesamtfertilitätsrate, durchschnittliches Fertilitätsalter und Unehelichengquote. Wien: Statistik Austria 2012.

- Stern C, Trapp E, Mautner E, Deutsch MT, Lang U, Cervar-Zivkovic M. The impact of severe preeclampsia on maternal quality of life, Qual Life Resear 2013, DOI 10.1007/s11136-013-0525-3.
- Wagnild GM, Young HM: Development and psychometric evaluation of the resilience scale. Journal of Nursing Measurement 1993, 1:165-78.
- The WHOQOL Group: The World Health Organization Quality of Life Assessment (WHOQOL): Position paper from the World Health Organization. Soc. Sci. Med. 41 (1995) 1403-1409.
- The WHOQOL-Group. The development of the World Health Organization quality of life assessment instrument: The WHOQOL. In J. Orlex & W. Kuyken (eds.). Quality of life assessment: International perspectives. Berlin: Springer, 1994:41-57.
- Welburn V, Postnatal Depression. Glasgow: Collins. 1980