Maternal Grief after Abortion and Related Factors

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Objective : *To investigate maternal grief after abortion and the factors that might relate to the intensity of maternal grief.*
Design : *Cross-sectional, descriptive study.*
Subject : *132 women who attended the abortion clinic, Department of Obstetrics and Gynecology, Faculty of Medicine, Siriraj Hospital, Thailand.*
Method : *The subjects were asked to complete the questionnaires including demographic characteristics, history of previous pregnancy, and Perinatal Grief scales, two weeks after abortion. The data was then analyzed to determine maternal grief and related factors of grief intensity.*
Results : *There were 7 women with severe grief intensity (5.3%), 50 with moderately grief intensity (37.9%) and 75 with mild grief intensity (56.8%). The factors associated with PGS scores were low income, had had ultrasonography, gestational age of > 16 weeks and methods of treatment.*
Conclusion : *Grief is worldwide among women who have recently aborted. The related factors with grief intensity can be used for screening psychological problems of the women who experience abortion. If found, the physicians can closely observe and help them to work through their coping mechanism and prepare them to get another successful pregnancy in the future.*

Keywords : *Maternal grief, Abortion, Related factors*

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When a woman experiences pregnancy, she prepares herself, seeks medical care and anticipates that the outcome of pregnancy will be the birth of a healthy infant. However, such an outcome will not be met by every pregnant woman. Pregnancy loss can be found in about 25% of all pregnancies in the form of abortion, stillbirth, or neonatal death[1]. The incidence of all types of abortion in Siriraj Hospital in 2003 was 74.6/1,000 pregnancies.

The experience of loss following abortion is usually not recognized or validated by many key people in a woman's life including her physician. For the mother, the perceived loss of a fetus or an infant is the most devastating and critical experience that has ever happened. It may seem life threatening and cause long-term emotional sequelae[2]. Abortion is a sudden and unexpected nature of the loss that leaves the mother unprepared. The feeling and emotions associated with the bereavement, namely *grief* has been defined as a universal subjective response following loss of a valued object. It is considered as a compensatory process of adaptation, not a pathological process, that rather can bring healing and higher level of personal integrity and transformation[3]. The grief process has been identified into 5 stages: denial, anger, bargaining, depression, and acceptance. Although this response occurs normally, it has many effects on the mother and all involved persons in physical, psycho-emotional, and social ways such as exhaustion, loss of appetite, sleeplessness, loss of concentration, guilt, helplessness, loss of self-esteem, sense of failure, preoccupation with the deceased, doubt about reproductive competence, withdrawal from normal activity, isolation from spouse, family, or friend[4].

If the physicians can recognize these psychological problems, they could help the mothers who lose their babies to use a coping mechanism effectively and accomplish grief work, and progress through the stage of grief[5]. In prenatal loss, grief is the greatest

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immediately after the loss. For most women, the reaction peaks and begins to ebb around 4 to 6 weeks, resolving almost fully by the third or fourth week after abortion. In general, how one copes 1 week after abortion is a good predictor of coping at 4 months suggest that delayed grief reactions are uncommon[6]. Unfortunately, for most mothers who lose their babies require hospital admission for a few days. The short time of hospitalization of women does not allow physicians to provide effective caring especially psychological support. Therefore, the screening of prenatal loss mothers who are at risk of abnormal grief by using identifying factors is very important to prevent any psychological sequelae that may be social a problem as well.

However, data on the frequency of maternal grief occurring after abortion in Thailand is still limited. Therefore, the goals of this descriptive study were to investigate the prevalence of maternal grief after abortion and the factors that might relate to the intensity of maternal grief.

Material and Method

The present study was approved by the institutional ethic committee. A total of 132 women who attended the abortion clinic, Department of Obstetric and Gynecology, Faculty of Medicine Siriraj Hospital, two weeks after abortion between January and April 2004 and agreed to participate were enrolled. Women with the diagnosis of mental illness, neurosis or cognate impairment, those who could not communicate in Thai and those who did not agree to participate were excluded.

Before the subjects met their physician for a check up, the researcher approached them individually to solicit their participation in a study about the factors related to maternal grief after abortion. They were assured that their responses would be confidential and anonymous, and that refusal to participate would in no way affect their treatment at the clinic. After informed consent was obtained, the translated questionnaire of a short version of the Perinatal Grief Scale (PGS) of Toedter et al (1989) was used to collect data[5] The PGS is the only measure of grief after perinatal loss which has been checked for reliability and for internal consistency[5]. The translated PGS was validated by a psychiatrist, a psychologist, and an obstetrician and reliability was tested, with coefficient alpha = 0.89.

The short version of the Perinatal Grief Scale consisted of 33 items using Likert-type answer which vary from strongly agree[1] to strongly disagree[5] with reverse scores in 2 items. The PGS consisted of three subscale scores; Active grief, Difficulty coping and Despair[5]. Possible total scores range from 33-165. Higher scores mean lower grief and lower scores mean higher grief. The intensity of grief was divided into three levels, mild (score >120), moderate (score between 77-120), and severe grief (score < 77).

In addition to the Perinatal Grief scales, the questionnaire was designed to collect data on demographic variables, previous pregnancy and abortion, marital relationship, number of antenatal care visits and ultrasonography, course of abortion and methods of treatment. Participants were asked to complete 33 items of PGS by themselves. The researcher was available to answer questions. In a few cases in which the respondent's reading level was a problem, the researcher read the items to the subject.

All data were analyzed by the SPSS for Windows version 11. Descriptive statistics was used to describe demographic data. Prevalence of various grief intensity levels was estimated. Student t-test and analysis of variance were used to compare mean of PGS scores between related factors as appropriate. Level of significance was set at 0.05.

Results

A total of 132 women who agreed to participate were enrolled in the present study. Their age ranged from 17-44 years (Mean $\pm$ SD = 28.98 $\pm$ 7.09). Table 1 shows that almost half of the women completed secondary school level (42.4%) and majority were employees (45.5%). Incomes were less than

Table 1. Demographic characteristics of 132 women

	N	*%*
Age(Mean$\pm$SD)	28.97$\pm$7.09	
Occupation		
Government officer	15	11.4
Employee	60	45.5
Commerce	18	13.6
Housewife	35	26.5
Other	4	3.1
Education		
Primary school	47	35.6
Secondary school	56	42.4
Bachelor or higher	29	22.0
Marital status		
Married	106	80.3
Never married	23	17.4
Separated/divorced	3	2.3
Incomes (baht/month)		
< 5,000	57	43.2
5,000-10,000	59	44.7
> 10,000	16	12.1

10,000 baht per month in about 88% of the cases. The majority of samples (80.3%) were married and 2.3% were either separated or divorced. Data on the history of a previous pregnancy are shown in Table 2. More than half of the samples had never had a child before (55.3%), and 76.5% had never experienced abortion in her life.

Table 3 shows data about recent abortion. Abortion occurred during 1st trimester in more than half of the women (62.1%) and most of these abortions were spontaneous abortion (65.2%). More than half of the women did not have any antenatal care (56.8%). However, ultrasonography had been performed in a similar proportion of the women (56.1%).

Of 132 women, severe grief intensity was found in 7 cases (prevalence 5.3%), moderate intensity was found in 50 cases (prevalence 37.9%) and mild grief intensity was found in 75 cases (prevalence 56.8%).

Table 4 shows means and standard deviations of each 3 subscales and total scores. Mean score of active grief subscales was slightly less than the others, which means that they had a higher intensity of active grief than difficulty coping and despair.

One way analysis of variance and student t test were conducted to compare means of PGS scores between certain characteristics. The results are shown in Table 5, 6 and 7. Significant lower scores were observed among groups with incomes less than 5,000 baht per month with regard to the difficulty coping subscale. No difference in scores was observed among different history of previous pregnancies. The results also showed that women who had a previous ultrasonographic examination and those with > 16 weeks of gestation had significantly lower scores of active grief. With regard to methods of treatment, scores on active grief and total score were significantly lower among those whose pregnancies were terminated with misoprostol and oxytocin, compared to other methods.

Table 2. History of previous pregnancy (n = 132)

History of pregnancy	*N*	*%*
Parity		
0	73	55.3
1	37	28.0
≥ 2	22	16.7
Previous abortion		
Never	101	76.5
≥ 1	31	23.5

Table 3. History of recent abortion

History of abortion	*N*	*%*
Cause of abortion		
Spontaneous	86	65.2
Induced	46	34.8
Gestational age		
0-12 weeks	82	62.1
13-16 weeks	27	20.5
> 16 weeks	23	17.4
Antenatal care		
Yes	57	43.2
No	75	56.8
Ultrasonography		
Yes	74	56.1
No	58	43.9
Methods of treatment		
Dilatation & curettage	88	66.7
Cytotec with D&C	25	18.9
Cytotec with oxytocin	19	14.4

Table 4. Grief scores of 132 women stratified by each subscale

Scales	*Mean ± SD*
PGS Active grief	32.57 ± 9.23
PGS Difficulty coping	42.53 ± 6.26
PGS Despair	40.92 ± 8.09
PGS Total	116.02 ± 20.57

Discussion

An important characteristic of the PGS is that it can distinguish between women who experience a "normal" grieving process and women who seem to be at risk of more severe sequences from their loss. Normal grieving process will present with lower in Active grief scores and higher in Difficulty coping and Despair scores [5]. It might be explained that although they had higher grief, they still coped with it well and had a little despair.

In the present study, mean scores of active grief was lower than other subscales which indicated that grief response following abortion of the women in the present study appeared to be normal response. Similar results have been reported previously[5]. Although these results showed the normal grief response of the mothers, the authors found that nearly half of the samples had severe and moderate intensity (43%), so physicians should pay attention to and recognize these psychological problems in addition to their physiological problems. The authors recommend that women with severe and moderate grief intensity should be counseled and followed up by using this PGS to assess the improvement at 6 weeks and 6 months after abortion[7].

The authors also found that incomes, ultrasonography, gestational age and methods of treat-

Table 5. Factors related to grief scores, stratified by each subscale (demographic characteristics)

	Active grief	*Difficulty coping*	*Despair*	*Total*
Education				
Primary school	35.11 ± 11.02	42.38 ± 6.34	40.15 ±9.22	117.64 ± 23.96
Secondary school	30.84 ± 8.07	42.43 ± 6.62	40.98 ± 7.20	114.25 ± 18.57
Bachelor or higher	32.57 ± 7.35	42.97 ± 5.55	42.03 ± 7.92	116.79 ± 18.63
Marital status				
Married	32.43 ± 8.92	42.67 ± 6.25	41.16 ± 7.96	116.26 ± 19.89
Never married	32.47 ± 9.98	42.35 ± 5.91	40.43 ± 7.94	115.52 ± 21.76
Separated/divorced	36.00 ± 17.09	39.00 ± 10.39	36.00 ±14.93	111.00 ± 40.95
Incomes (Baht/month)				
< 5,000	31.21 ± 9.54	40.89 ± 5.62*	39.60 ± 8.22	111.70 ± 20.51
5,000-10,000	33.93 ± 9.20	44.00 ± 6.53*	52.02 ± 7.21	119.95 ± 19.45
> 10,000	32.38 ± 7.93	42.94 ± 6.36	41.56 ± 10.33	116.88 ± 22.98

* One-way ANOVA, $p < 0.05$

Table 6. Factors related to grief scores, stratified by each subscale (history of pregnancy)

	Active grief	*Difficulty coping*	*Despair*	*Total*
Parity				
0	32.04 ± 8.97	43.11 ± 6.75	41.07 ± 7.72	116.22 ± 20.56
1	32.14 ± 9.28	42.11 ± 4.85	40.73 ± 8.69	114.97 ± 20.59
≥ 2	35.05 ± 10.03	42.53 ± 6.26	40.73 ± 8.63	117.09 ± 21.43
Previous abortion				
Yes	31.13 ± 9.99	42.13 ± 6.04	41.71 ± 7.37	114.97 ± 20.20
No	33.13 ± 9.00	42.65 ± 6.35	40.67 ± 8.32	116.34 ± 20.77

Table 7. Factors related to grief scores, stratified by each subscale (characteristics of recent abortion)

	Active grief	*Difficulty coping*	*Despair*	*Total*
Antenatal care				
Yes	34.02 ± 9.00	42.56 ± 5.74	40.21 ± 7.51	116.79 ± 19.09
No	31.47 ± 9.32	42.51 ± 6.66	41.45 ± 8.52	115.43 ± 21.73
Ultrasonography				
Yes	30.97 ± 8.84*	41.84 ± 6.00	40.50 ± 8.00	113.31 ± 20.49
No	34.60 ± 9.40*	43.41 ± 6.52	41.45 ± 8.26	119.47 ± 20.32
Cause of abortion				
Spontaneous	33.24 ± 9.31	43.00 ± 6.11	41.44 ± 7.72	117.69 ± 19.69
Induced	31.30 ± 9.06	41.65 ± 6.50	39.93 ± 8.74	112.89 ± 22.00
Gestational age				
0-12 weeks	32.73 ± 8.52	43.20 ± 6.06	40.70 ± 7.59	116.63 ± 18.46
13-16 weeks	35.85 ± 10.46*	42.33 ± 6.46	43.00 ± 7.91	121.19 ± 22.44
> 16 weeks	28.13 ± 8.79*	40.39 ± 6.49	39.22 ± 9.77	107.74 ± 23.72
Methods of treatment				
Dilatation & curettage	33.51 ± 8.90	42.84 ± 6.16	41.10 ± 7.53	117.45 ± 19.10
Misoprostol with D&C	34.32 ± 9.98*	43.72 ± 6.00	42.72 ± 8.41	120.76 ± 21.57*
Misoprostol with oxytocin	25.89 ± 7.02*	39.53 ± 6.48	37.68 ± 9.60	103.11 ± 21.84*

* One-way ANOVA, $p<0.05$

ment were significantly related with PGS scores. Those with low incomes had significantly lower scores in the difficulty coping subscale. It might be explained that they may have had many problems coping with their unstable economic status or no one in their family supported them. Late pregnancy (≥ 16 wk) had significantly more active grief intensity than early gestational age. This was similar to another study which previously

reported that gestational age was related to grief scores, such that women who had been pregnant longer experienced stronger grief[8]. Active grief seems to be a frequency sequence and its moderately strong association with gestational age at the time of the loss contributes to the hypothesis that it is a normal feeling. This suggested that gestational age plays a greater role in the more short-term and "normal" reaction (Active grief) than in what are thought to be the more long standing and trouble reaction described by difficulty coping and despair[5]. It might be explained that maternal attachment to the fetus increases with duration of pregnancy [9]. Because the women have identified their baby as an individual, they would increase their loving bond with their unborn baby[10].

The women who had a previous ultrasonography had a significantly higher Active grief but not total grief scores. The explanation was quite similar as gestational age about the attachment to the fetus might increase if they saw their baby by ultrasonography. The other reason is that the more frequently the ultrasound was performed in the women whose baby was diagnosed with immortal abnormality and must have a therapeutic abortion in the late stage of their pregnancy.

Methods of treatment are also related with intensity of grief, in both active grief subscale and total scores of PGS. This might be from the fact that women treated by misoprostal and oxytocin were usually in higher gestational age, which also affected the grief scores.

Marital status was not significantly related to grief intensity, but means of subscale of Difficulty coping and Despair in the group of separated and divorced tended to decrease. This might indicate their lack of spouse support made it difficult to cope with the problem and they felt more despair. It was similar to a previous study that mothers who had good marital relationships had less grief than those with poor marital relationships and one of the most powerful factors supported mothers working through the grieving process was a social network that perceived the loss in the same way as the mother[11]. However, the samples of separated or divorced women in the present study were too small to reach such a conclusion.

The number of parity was not a significantly related factor, but the childless and women with only 1 child had slightly higher active grief intensity. It might be explained that these women had a higher expectation in their pregnancy. This result supported several studies which reported that childless women showed more intense grief at the time of loss[4,12].

Previous abortion was not significantly related with maternal grief intensity. Previous abortion may either aggravate or alleviate the current grief. A previous study found that the intensity of grief was related to previous reproductive loss[13]. Like the other psychological problem such as depressive symptoms or disorders, one study that evaluated psychological outcome following a first or recurrent abortion showed that the risk of depression for women with recurrent abortion did not elevate when related to a single abortion[14].

Conclusion

In summary, the present study revealed that intensity of grief in 57 of 132 samples (43%) who attended the abortion clinic at our institution two weeks after their recent abortion, were in the level of moderate or severe. This finding suggested that physicians should pay attention not only to physical problems, but also to psychological problems. physicians may use these related factors including incomes, ultrasonography, gestational age and methods of treatment to screen for psychological problems of women who experienced abortion.

Although the present study could not demonstrate certain factors that were strongly related to grief intensity, it may help other physicians to understand the relationships of some factors and grief response. Additional research should be conducted to explore other factors in more details in the future. In addition, interventions should be established to identify and support this group of women to help them cope with their grief successfully.

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ภาวะโศกเศร้าในสตรีหลังการแท้งบุตรและปัจจัยที่เกี่ยวข้อง

เนตรนิภา พรหมนารท, สุชีรา ภัทรายุตวรรตน์, ดิฐกานต์ บริบูรณ์หิรัญสาร, ประเสริฐ ศันสนียวิทยกุล

วัตถุประสงค์ *: เพื่อศึกษาความรุนแรงของภาวะความโศกเศร้าหลังการแท้งบุตร และหาปัจจัยที่เกี่ยวข้อง*

ชนิดของการวิจัย *: การวิจัยเชิงพรรณนา*

กลุ่มตัวอย่าง *: สตรีหลังแท้งบุตรที่รับการตรวจติดตามการแท้งบุตร ที่คลินิกหลังการแท้งบุตร ภาควิชาสูติศาสตร์-นรีเวชวิทยา คณะแพทยศาสตร์ศิริราชพยาบาล จำนวน 132 คน*

วิธีการศึกษา *: ทำการสัมภาษณ์สตรีหลังแท้งบุตร2สัปดาห์ โดยใช้แบบสอบถามเกี่ยวกับข้อมูลทั่วไป, ข้อมูลทางสูติกรรม และแบบประเมินความโศกเศร้าหลังการแท้งบุตร ข้อมูลจะนำมาวิเคราะห์เพื่อหาความรุนแรงของภาวะโศกเศร้าหลังแท้งบุตรและปัจจัยที่เกี่ยวข้อง*

ผลการวิจัย *: จากการศึกษาพบสตรีที่มีภาวะโศกเศร้าระดับรุนแรง 7 ราย (5.3%) ระดับปานกลาง 50 ราย (37.9%) ระดับไม่รุนแรง 75 ราย (56.8%) และพบว่าปัจจัยที่สัมพันธ์กับภาวะโศกเศร้าหลังการแท้งบุตร คือ รายได้ต่ำ, การได้รับการตรวจด้วยคลื่นเสียงความถี่สูง, อายุครรภ์เมื่อแท้ง มากกว่า 16 สัปดาห์, และวิธีการรักษา*

สรุป *: ปัจจัยที่สัมพันธ์กับระดับความโศกเศร้าหลังการแท้งบุตรที่ได้จากวิจัยนี้ สามารถนำไปใช้ตรวจคัดกรองปัญหาทางจิตใจของสตรีหลังการแท้งบุตรได้ ถ้าพบปัจจัยดังกล่าว แพทย์ควรดูแลผู้ป่วยอย่างใกล้ชิด ให้ความช่วยเหลือเพื่อให้สตรีที่มีความโศกเศร้าจากการแท้งบุตรสามารถผ่านพ้นปัญหา และพร้อมสำหรับการตั้งครรภ์ที่สมบูรณ์ในอนาคต*