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SPECIAL ISSUE

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Complicated grief after traumatic loss

A 14-month follow up study

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Abstract The traumatic loss of an unborn child after TOP due to fetal malformation and/or severe chromosomal disorders in late pregnancy is a major life-event and a potential source of serious psychological problems for those women. To obtain information on the course of grief following a traumatic loss, 62 women who had undergone TOP between the 15th and 32nd gestational week were investigated in a longitudinal study design and compared with 65 women after spontaneous delivery of a full-term healthy child. Grief, posttraumatic stress, depression, anxiety and psychiatric disorders were evaluated 14 days, 6 months and 14 months after the event, implementing validated self-report and clinician rated instruments. Compared to women after spontaneous delivery, women after induced TOP were significantly more stressed regarding all psychological outcomes at all three measuring points. Especially, 14 months after TOP 13.7% of the women fulfilled all criteria of a complicated grief diagnoses following Horowitz et al. (1997, Am J Psychiat 154:7904–7910). 16.7% were diagnosed as having a manifest psychiatric disorder according to DSM-IV. All in all, 25% of these women were critically affected by the traumatic loss. TOP for fetal anomaly is to be seen as a major life event, which causes complicated grief reactions and psychiatric disorders for a substantial number of women.

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Introduction

One outcome of further differentiating prenatal diagnostics is that fetal abnormalities have been increasingly diagnosed and prognostically assessed during pregnancy. However, the opportunities of prenatal therapy remain limited in numerous disorders. Once the diagnosis has been made, parents are confronted with a traumatic reality and a difficult emotional choice: whether to continue or to terminate the pregnancy. To continue the pregnancy has far reaching effects on many significant aspects of their further life. To terminate this otherwise desired pregnancy means opting for the death of their own fetus and consequently an often-agonizing wait for the labor pains to set in and for the delivery of a stillborn fetus. Taking all these considerations into account, a substantial number of women with a diagnosed fetal malformation decide to terminate the pregnancy [17, 21].

Induced termination of pregnancy (TOP) in 2nd or 3rd trimester due to fetal malformation is a major life-event and a potential source of serious psychological problems for a substantial number of women [10, 13, 16, 24].

In particular, retrospective studies revealed that TOP in late pregnancy was related to severe parental posttraumatic stress response and intense grief reactions that were still detected some years later [14, 15]. Davies et al. [7] showed in a prospective study design that compared to termination of pregnancy in the first trimester the second trimester termination was associated with a higher risk of posttraumatic symptoms.

However, the studies published to date reveal several methodological limitations. They were based

Table 1 Proposed diagnostic criteria for complicated grief disorder [12]

A. *Event criterion/prolonged response criterion*
Bereavement (loss of a spouse, other relative, or intimate partner) at least 14 months ago
B. *Signs and symptoms criteria*
In the last month, any of the following seven symptoms with a severity that interferes with daily functioning
Intrusive symptoms
1. Unbidden memories or intrusive fantasies related to the lost relationship
2. Strong spells or pangs of severe emotion related to the lost relationship
3. Distressingly strong yearnings or wishes that the deceased were there
Signs of avoidance and failure to adapt
4. Feelings of being far too much alone or personally empty
5. Excessively staying away from people, places, or activities that remind the subject of the deceased
6. Unusual levels of sleep interference
7. Loss of interest in work, social caretaking, or recreational activities to a maladaptive degree

Table 2 Demographic and obstetric details of the study sample

	TOP ($N = 62$)	CON ($N = 65$)	Test-statistic	P
Mean age (years)	34.3 (5.0)	32.1 (4.7)	2.50 [a]	0.014[a]
Married/cohabiting (%)	75.8	78.5	0.13[b]	0.722 n.s.[b]
Maternal education (%)			23.10[c]	<0.001[c]
Low	25.8	3.0		
Medium	41.9	24.6		
High	32.3	72.4		
Obstetric data (%)				
Having living children	48.4	100	41.18[b]	<0.001[b]
Miscarriage before	22.6	18.5	0.33[b]	0.565 n.s.[b]
Abortion before	19.4	3.1	8.57[b]	0.003[b]
Stillbirth before	8.1	1.5	3.00[b]	0.083 n.s.[b]
Mean gestational week [range]	20.2 (3.8) [15–32]	40.0 (1.3) [37–43]	39.35[a]	<0.001[a]

[a] Two-tailed *t*-test[b] Pearson χ^2, 2 × 2 table, df = 1
[c] Pearson χ^2, 3 × 2 table, df = 2

on relatively small numbers of cases [10, 24], and in some instances no validated measuring instruments were used [7, 10, 15, 16]. The specific grief symptoms were rarely recorded [4, 5, 10, 13]. Furthermore control groups of women having given birth to a healthy newborn were usually not available [4, 5, 7, 10, 13, 15, 16]. In addition to that, none of the existing studies used standardized assessment techniques for psychiatric disorders according DSM-IV.

The aim of the present study was to evaluate the grieving process of women after a traumatic loss. The majority of women were expected to adapt well to this traumatic event, showing uncomplicated grief reactions and no severe psychological impairments. However, some women were expected to fulfill diagnostic criteria of complicated grief as defined by Horowitz et al. [12] (see Table 1) and/or develop a psychiatric disorder following this traumatic loss.

Methods

Sample

Between June 2000 and December 2003, 62 women with induced TOP due to fetal malformation in the 2nd or 3rd trimester were treated at the Department of Gynecology and Obstetrics of the University of Muenster, Germany, by a multidisciplinary team and agreed to take part in the study. The fetal diagnoses comprised chromosomal anomalies or multiple fetal malformations. Counseling was offered in the decision-making process regarding induced TOP as well as during the hospitalization period and after discharge. A total of 65 women after a spontaneous delivery of a healthy child served as controls. The ethics committee of the medical faculty of the University of Muenster approved of the study protocol. The protocol was performed in accordance with the ethical standards laid down in the Declaration of Helsinki. Written informed consent was given before participation.

Demographic and obstetric characteristics of the two groups are presented in Table 2. No significant differences were found regarding proportion of lifetime psychiatric disorders as evaluated by the SCID interview (χ^2 (1) = 0.90, $P = 0.342$, n.s.). 104 (81.9%) of the initially participating women completed interviews and questionnaires 6 months and 89 women (70.1%) 14 months after the event. Completers and non-completers did not differ significantly on any of the relevant criteria as age, having living children, traumatic, depressive or anxious symptoms, except for clinician rated anxiety.

Instruments

Complicated grief, posttraumatic stress, depression, anxiety and psychiatric diagnosis were assessed 14 days (T1), 6 months (T2) and 14 months (T3) after the TOP. Along with demographic and obstetric details, further information on potential predictor variables were recorded (stressful life events, strength of religious faith, having living children, having taken part at the funeral, extent of belief in necessity of psychotherapeutically support, extent of fear that the child is not healthy).

Table 3 DSM-IV diagnoses as a function of time and group

Diagnoses	Lifetime		2 weeks		6 months		14 months	
	TOP ($N = 62$)	CON ($N = 65$)	TOP ($N = 62$)	CON ($N = 65$)	TOP ($N = 47$)	CON ($N = 57$)	TOP ($N = 36$)	CON ($N = 53$)
DSM-Diagnoses %	33.9	26.2	22.6	6.2	21.3	0	16.7	0
Test statistic	0.90[a], $P = 0.342$, n.s.		27.04[a], $P = 0.008$**		13.42[a], $P < 0.001$**		9.47[a], $P = 0.002$**	
Affective Disorders %	21.0	18.5	11.3	6.2	10.6	0	11.1	0
Anxiety Disorders %	6.5	1.6	1.6	0	6.4	0	5.6	0
Stress Disorders %	1.6	3.2	8.0	0	2.1	0	0	0
Other Disorders %	6.5	1.6	1.6	0	2.1	0	0	0

[a] Pearson χ^2, 2 × 2 table, df = 1
**$P < 0.01$
Affective disorders = Major depressive disorders, both single episodes and recurrent or Dysthymic disorder; Anxiety disorders = Phobic and panic disorders, Obsessive-compulsive disorders, Somatoform disorders; Stress related disorders = Adjustment disorder, Acute stress disorder, Posttraumatic stress disorder

Psychiatric diagnoses (acute and life-time diagnoses) were confirmed using the German Version of the *Structured Clinical Interview for DSM-IV* (SCID I; [8]; German Version [28]).

A modified German version of the *Complicated Grief Module* (CGM, [12], German version [18]) was applied to assess the degree of complicated grief. This interview provides 35 symptoms of complicated grief in a SCID-module format. Three categories of symptoms are defined: *Grief related intrusions* (14 items, e.g., "unbidden memories or images of the deceased"), *behavior to avoid grief-related emotional stress* (nine items, e.g., "avoiding places that remind of the deceased") and *difficulties/failures to adapt to the loss* (11 items, e.g., "significant difficulty with new close relationships"). Each symptom is rated on a seven point Likert-type severity scale (ranging from 0 to 6). The questions of the German-language version of the SCID-type interview had been modified in order to meet the special needs of the homogenous group of women after induced TOP. The diagnostic allocation following the algorithm of Horowitz et al. [12] is used as well as the continuous total interview-rated grief scores (CGM Score).

A modified German version of the *Perinatal Grief Scale* (PGS, [3, German version, 26]), a specific instrument measuring grief after the loss of an unborn child in pregnancy or after perinatal loss, was implemented. The instrument contains five subscales: sadness (six items), fear of loss (five items), guilt (five items), anger (three items), and search for meaning (three items). Items were rated on a 5-point scale ranging from 1 to 5, and satisfactory psychometric properties were found [3].

The *Impact-of-Event-Scale-Revised* (IES-R; [27, German version: 20]) is a self-report instrument to assess posttraumatic stress reactions on three dimensions of responses: intrusive experiences (seven items), avoidance of thoughts and images associated with the event (eight items), and symptoms of hyperarousal (seven items). The 22 items were rated according to the frequency of symptoms in the past 7 days, scores range from 0 to110. The scale has been shown to have satisfactory test–retest reliability (0.66–0.80), and good validity [27].

The *Beck Depression Inventory* (BDI; [2, German version: 11]) is a widely used well-validated 21-item self-report questionnaire measuring severity of depressive symptoms. Scores range from 0 to 63, and the BDI has been shown to provide good internal consistency and convergent validity [1].

Self-reported anxiety was assessed with the *Spielberger State-Trait Anxiety Inventory* [25, German version: 19]) which includes two 20-item scales measuring state (current) or trait (chronic) anxiety. Scores on each scale range from 20 to 80.

Statistical analysis

Within the group of women after induced TOP changes of *grief* (measured with CGM and PGS) across time were explored in a prospective study-design using repeated-measures analyses of variance (ANOVA) with the within-subjects factor time (T1 vs. T2 vs. T3; repeated measures) and a priori contrasts for single time points. Effects across time on dichotomous variables were analyzed using Cochran's *Q*-test. Repeated-measures analysis of variance (ANOVA) with the between-subjects factor group (TOP, CON) and the within-subjects factor time (T1 vs. T2 vs. T3; repeated measures)—in case of violation of sphericity with the Greenhouse–Geisser correction—was computed on psychopathological variables to investigate effects across time. The co-variation of demographic variables and potential predictors (subject characteristics or situational characteristics) with measures of psychosocial distress was analyzed. Variables with a relevant ($P < 0.15$) association with the outcome measures were included into a hierarchical regression analysis to explore the best predicting power on measures of psychological distress.

Results

Psychiatric diagnoses

Psychiatric diagnoses of the sample (following DSM-IV) are presented in Table 3. Testing revealed two weeks post partum and 14 months after the event a significantly higher percentage of women after TOP with relevant psychiatric diagnoses (T1: 22.6%; T3: 16.7%) compared to controls' diagnoses (T1: 6.2%; T3: 0%). Women after spontaneous birth only reported affective disorders (6.2%), whereas in women after TOP affective disorders (11.3%), anxiety disorders (1.6%) eating disorders (1.6%) and stress-related disorders (8.0%) occurred.

Grief and complicated grief

Table 4 gives proportions of diagnoses and results of the repeated-measures ANOVAs with a-priori-contrasts to examine the course of grief across time as measured by the CGM and the PGS on completers. 14 months after TOP due to fetal anomaly, 25% of the women were diagnosed having clinically relevant psychiatric disorders: 13.9% with a diagnosis of complicated grief (Horowitz et al. [12]), 5.6% with an additional psychiatric disorder, and further 11.1%

Table 4 Diagnoses and mean scores (standard deviation) of grief in women after induced abortion and test-statistics across time on completers ($N = 36$)

Scale	T1 M (SD)	T2 M (SD)	T3 M (SD)	F (df: 2, 34)[a]	*P*	Con (T1 − T2)[b]	Con (T2 − T3)[c]
Complicated grief %	[38.9][d]	[16.7][d]	13.9	9.73[e]	0.009**	*	n.s.
SKID-diagnoses %	25.0	25.0	16.7	1.00 [e]	0.589, n.s.	n.s.	n.s.
Double diagnoses %	[14.5][d]	[10.6][d]	5.6	–	–	–	–
CGM							
Total	1.5 (0.81)	1.2 (0.88)	0.9 (0.78)	15.94[a]	<0.001**	**	**
Intrusion	2.2 (1.21)	1.5 (1.20)	1.0 (0.92)	17.20[a]	<0.001**	**	**
Avoidance	1.1 (0.99)	0.9 (1.03)	0.6 (0.84)	6.39	0.003**	n.s.	*
Failure to adapt	1.6 (1.24)	1.2 (1.19)	1.1 (1.10)	2.99	0.057[+]	*	n.s.
PGS							
Total	2.9 (0.47)	2.5 (0.53)	2.4 (0.54)	27.57[a]	<0.001**	**	n.s.
Sadness	3.5 (0.74)	3.0 (1.01)	2.6 (0.96)	22.04[a]	<0.001**	**	**
Fear of loss	3.5 (0.76)	3.0 (0.95)	2.8 (0.95)	14.16	<0.001**	**	n.s.
Guilt	1.8 (0.75)	1.4 (0.62)	1.4 (0.65)	13.35	<0.001**	**	n.s.
Anger	1.9 (0.71)	1.8 (0.69)	2.0 (0.91)	1.63	0.200, n.s.	n.s.	n.s.
Search for meaning	3.4 (0.57)	3.2 (0.74)	3.3 (0.64)	1.34	0.270, n.s.	n.s.	n.s.

[a] Greenhouse–Geisser adjusted degrees of freedom
[b] Contrast between T1 and T2
[c] Contrast between T2 and T3
[d] Criteria of complicated grief following Horowitz apart from time criterion
[e] Cochrans *Q* (df 2)
**$P < 0.01$
*$P < 0.05$

merely with a psychiatric disorder as defined in DSM-IV.

Repeated-measures ANOVAS with contrast analysis on CGM revealed significant decreases on total score, intrusion, and avoidance, whereas failure-to-adapt did not improve across time. Regarding the PGS, significant improvements were found for total score, and the subscales sadness, fear-of-future-loss, and guilt. Only on the subscales anger, and searching for meaning no significant changes were found. In the present sub-sample, CGM and PGS demonstrated good internal consistency as measured with Cronbach's alpha (CGM ranging from 0.92 to 0.94; PGS: ranging from 0.86 to 0.88).

Posttraumatic stress, depression, and anxiety

Table 5 presents means, standard deviations and results of *t*-tests on posttraumatic, depressive and anxious symptoms of the two groups at all three measuring points. Women after TOP showed at all three measuring points, significantly higher symptoms than women after spontaneous delivery on all psychopathological scales. Repeated measures ANOVAs on completers (N=36) showed on all measurements significant effects for group and time as well as significant interaction effects (group × time), except for the subscale STAI trait with no interaction effect (F (1.75, 87) = 1.19, P = 0.301, n.s.).

Predictor analysis

Correlations among all *potential* predictor variables and all outcome variables 14 months after TOP were conducted (Pearson's r; sum scores of CGM, PGS, IES-R, BDI, STAI-state, STAI-trait).

Maternal age, marital status, educational level, stressful live events, gestational age, having living children, and having taken part at the funeral did not correlate significantly with any of the psychopathological instruments at any time point. Variables with a relevant association with any of the outcome measures ($P < 0.15$, Table 6) were strength of religious faith, extent of belief in necessity of psychotherapeutically support, extent of fear that the child is not healthy, wish for a child, extent of social support, and life time mental health. These variables were integrated into hierarchical multiple regression analysis employing a stepwise regression procedure to investigate the most central predictors for psychological distress 14 months after TOP. Sample size restricted the use of statistical multivariate control. Results are shown in Table 6. The best predictors for grief measured with CGM were fear of getting an unhealthy child ($\beta = 0.48$) and social support ($\beta = -0.43$), explaining 34% of its variability. For self-report grief (PGS) strength of religious faith ($\beta = 0.43$) and social support ($\beta = -0.39$) were the best predictors, explaining 30% of variability of PGS. According to posttraumatic stress fear of an unhealthy child ($\beta = 0.46$) was the only significant predictor. Severity of depression, both self- and clinician-rated, was significantly predicted by social support ($\beta = -0.56$ and -0.40) and strength of religious faith ($\beta = 0.39$ and 0.46), explaining 43% and 33%, respectively. In general, the perceived social support 6 months after the abortion turned out to be the best predictor for most of the dependent variables (β ranging from -0.36 to -0.56).

Table 5 Mean scores (standard deviation) of both groups as a function of time and test-statistics.

Scale (T1)	TOP ($N = 62$) M (SD)	CON ($N = 65$) M (SD)	*t*-statistic	P
IES-intrusion	18.8 (7.77)	4.6 (4.68)	12.43	<0.001**
IES-avoidance	11.3 (7.43)	1.2 (2.20)	10.24	<0.001**
IES-hyperarousal	14.0 (8.22)	2.2 (2.64)	10.77	<0.001**
BDI	13.1 (8.77)	5.1 (3.77)	6.63	<0.001**
STAI-state	47.5 (12.18)	34.5 (7.05)	7.35	<0.001**
STAI-trait	44.7 (10.47)	35.0 (6.84)	6.16	<0.001**
Scale (T2)	TOP ($N = 47$) M (SD)	CON ($N = 57$) M (SD)	*t*-statistic	P
IES-intrusion	13.9 (7.89)	3.5 (3.71)	8.30	<0.001**
IES-avoidance	9.2 (7.12)	0.6 (1.67)	8.14	<0.001**
IES-hyperarousal	11.3 (8.34)	0.7 (1.17)	8.79	<0.001**
BDI	8.0 (8.35)	4.1 (3.18)	3.01	0.004**
STAI-state	41.4 (12.88)	33.3 (6.03)	3.98	<0.001**
STAI-trait	41.0 (11.58)	33.7 (6.15)	3.92	<0.001**
Scale (T3)	TOP ($N = 36$) M (SD)	CON ($N = 53$) M (SD)	*t*-statistic	P
IES-intrusion	12.6 (8.33)	2.9 (3.28)	6.67	<0.001**
IES-avoidance	8.8 (7.39)	0.4 (1.26)	6.76	<0.001**
IES-hyperarousal	9.6 (8.20)	1.0 (1.76)	6.15	<0.001**
BDI	7.6 (6.45)	4.0 (3.40)	3.09	0.003**
STAI-state	41.1 (11.20)	34.9 (8.19)	2.88	0.006**
STAI-trait	41.3 (10.96)	34.3 (6.92)	3.43	<0.001**

$^{**}P < 0.01$

Table 6 Correlations and results of multiple regression analysis for grief, posttraumatic stress, depression, and anxiety 14 months after loss of the child

	CGM	MGS	IES-r Total	BDI	STAI-state	STAI-trait
Correlations						
Strength of faith	0.24	0.43*	0.30^{+}	0.40*	0.10	0.18
Therapeutic necessity	$-0.27^{\#}$	−0.42*	−0.26	-0.35^{+}	−0.10	−0.35*
Wish for a child	$0.25^{\#}$	$0.28^{\#}$	0.17	0.17	0.07	0.06
Fear of getting an unhealthy child	0.45**	0.18	0.43*	0.43*	0.10	0.16
Life time diagnoses	0.40*	0.38*	0.24	0.24	0.43**	0.50**
Social support	−0.52**	−0.42*	$-0.27^{\#}$	$-0.27^{\#}$	−0.47**	−0.63**
Beta-weigths						
Strength of faith	–	0.43**	0.21	0.39**	–	–
Therapeutic necessity	−0.15	−0.15	–	−0.01	–	−0.24*
Wish for a child	0.13	0.27	–	−0.10	–	–
Fear of getting unhealthy child	0.48**	–	0.46**	0.13	–	–
Life time diagnoses	−0.01	0.01		0.02	0.20	0.12
Social support	−0.43**	−0.39*	0.22	−0.56**	−0.47**	−0.52**
Total R^2	0.378	0.347	0.210	0.469	0.222	0.378
Total R^2 adj	0.336	0.299	0.189	0.430	0.199	0.335
F Model	8.83**	7.18**	8.27**	11.93**	9.71**	8.81**

$^{**}P < 0.01$
$^{*}P < 0.05$
$^{+}P < 0.10$
$^{\#}P < 0.15$

Discussion

This study was set out to examine the course of grief following a traumatic loss. To the best of our knowledge it is the first investigation in this field that diagnosed complicated grief and psychiatric disorders according to DSM-IV after TOP using standardized self and clinician rated assessment techniques. Overall, our results showed, that the majority of women adapted well to the TOP. However, 14 months after the event still 16.7% of the women after TOP were diagnosed with psychiatric disorders, compared to none in the control group of women having given birth to a healthy newborn. It is interesting to note, that the spectrum of psychiatric disorders changed over time within the group of women after TOP. Whereas shortly after the loss affective disorders (11%) and anxiety disorders (2%) as well as acute stress disorders (8%) were diagnosed, 14 months post loss only affective (11%) and anxiety disorders (6%) predominated in the spectrum of psychiatric disorders. Despite the development of massive post-traumatic symptoms in the affected women, the traumatic

loss did not result in post-traumatic stress disorders. Whereas previous studies already emphasized the extent of psychological distress after TOP [10, 15, 16], the present study for the first time verified manifest psychiatric disorders according to DSM-IV in a substantial number of women (16.7%).

Additionally, 13.9% of these women received the diagnosis of complicated grief following Horowitz et al. [12] 14 months post loss. The much lower proportion of only 2.6% women with pathological scores of grief in the study of Korenromp et al. [15] might be attributed to several factors. Firstly, compared to 14 months in the present study, the loss of the child in the Korenromp study [15] dated back for 2–7 years. Hence, spontaneously occurring remission of complicated grief reactions might have reduced complicated reactions in this population. Secondly, advanced gestational age at TOP in the present study (20.2 compared to 18.0 [15]) might have led to a stronger maternal attachment to the unborn child resulting in an intensified grief reaction. Finally, different theoretical and empirical approaches (Prigerson et al. [22, 23]) used in Korenromp and Horowitz et al. [12] applied in the present study) result in different prevalence rates of complicated grief reactions [9].

Considering the process of grieving, in the present study the grief score significantly decreased during the investigated time period of 14 months. However, the large extent of psychological disturbances after TOP in the 2nd and 3rd trimenon, which is described in previous studies [10, 15, 16], is confirmed in comparison to a control group of women after birth of a healthy newborn. Especially the high degree of depression and anxiety reflects the psychological strain of this distressing life event. Women after TOP were significantly more depressed and experienced significant higher levels of current (state) and chronic (trait) anxiety than the women of the control group.

So far only very few studies have identified variables to predict the course of grief after this traumatic event [15] although reliable predictors are essential to understand underlying processes and mechanisms. In the present prospective study predictor variables were analyzed that help pre-estimate the course of psychological responses after TOP. In our sample of women after TOP initial high fear of getting an unhealthy child and initial high perceived social support positively influenced (clinician rated) grief 14 months later. Regarding self-reported grief, stronger religious faith, and better-perceived social support as assessed 14 days after the loss predicted lower level of grief 14 months later. These results underline the findings in the Korenromp study [15], emphasizing the positive influence of perceived partner support. Contrasting, low education could not be replicated as predictor for poor psychological outcome.

While the present study is the first analyzing the course of complicated grief and psychiatric disorders after TOP due to fetal anomaly, limitations of the study should be noted. In view of the final response rate of 58% completers in the group of women after TOP, the representative nature of the presented results is open to critical discussion. Although there were no significant differences between women who dropped out and those who completed the study referring to demographic variables and psychopathological parameters on the onset, a selective drop out of higher burdened women after TOP cannot be ruled out. One fact pointing in this direction is the higher response rate in the control group of women (82%) who showed significantly less mental distress. On the other hand, the response rate of this present study does not seem to be extraordinary low, when compared with the rates of other longitudinal studies on equivalent samples (e.g. 52% [6]; 69% [24]; 69% [10]).

Despite these restrictions, the results of the present study provide an initial orientation of the course of complicated grief processes following the traumatic loss after TOP due to fetal anomaly in late pregnancy. As surprisingly many women develop a complicated grief reaction and/or a psychiatric disorder after the traumatic loss of their unborn child, the development of specific intervention programs for women after that traumatic loss is recommended.

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