

Posttraumatic positive changes among parents who have experienced the loss of a child – the role of social support

BACKGROUND

In addition to a number of negative consequences, the trauma associated with the loss of a child may also entail the development of positive changes in psychosocial functioning, manifested as posttraumatic growth. An important factor that promotes posttraumatic growth is social support. The aim of the study was to determine the relationship between social support and the occurrence of positive posttraumatic changes resulting from trauma associated with the loss of a child.

PARTICIPANTS AND PROCEDURE

The study analysed a group of 76 persons who reported that the loss of a child (including perinatal and postnatal) was a traumatic event. The majority of respondents were women (55.30%). The age of the participants ranged from 18 to 62 years ($M = 35.88$, $SD = 9.52$). The following Polish versions of standardized tools were used: the *Posttraumatic Growth Inventory*, the *Significant Others Scale* to measure social support, and the visual analogue scale to assess the intensity of the trauma.

RESULTS

The subjects revealed positive changes in all spheres of posttraumatic growth following the loss of a child, greater in the group of people who lost their child after birth. A positive relationship was found between almost all types of analysed social support (except for desired emotional support) and posttraumatic growth. The regression analysis revealed that received practical support fulfils the primary predictive role for posttraumatic growth.

CONCLUSIONS

The use of the assistance of others by persons who have experienced trauma may contribute to the occurrence of growth after trauma.

KEY WORDS

social support; trauma; posttraumatic growth; loss of a child

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BACKGROUND

Experiencing the loss of a child as a result of a sudden and unexpected death is undoubtedly a traumatic event. Loss of a child, both perinatal and postnatal, results in profound grief, distress, anxiety and depression symptoms, for both parents, especially women (Armstrong, Hutti, & Myers, 2009; Brier, 2008; Stankiewicz, 2015); however, perinatal loss seems to be associated with lower levels of grief. Brier (2008) indicates that the intensity of grief may be similar to grief after other types of major losses and is significantly less intense by about 6 months.

In addition to the negative consequences, the experience of a traumatic event may also foster positive changes, manifested as posttraumatic growth (PTG). This concept refers to the process of transformation, which results in the occurrence of positive changes in self-perception, relationships with others and philosophy of life (Tedeschi & Calhoun, 1996, 2004). Transformation associated with bereavement has been conceptualized as a form of learning, which shapes assumptions and expectations about the world, rendering the bereaved person more inclusive, open, reflective and able to change (Black & Wright, 2012; Mezirow, 2003). It indicates that the shattered personal life resulting from such a negative experience as loss of a child provides the opportunity to make a transition towards growth.

Many studies have indicated the occurrence of positive changes among parents who have lost a child (Black & Wright, 2012; Büchi et al., 2007, 2009; Engelkemeyer & Marwitt, 2008; Lichtental, Currier, Neimeyer, & Keese 2010; Martincekova & Klatt, 2016; Pan, Liu, Li, & Kwok, 2016; Polatinsky & Esprey, 2000; Thomadaki, 2012; Znoj, 2006).

Calhoun, Tedeschi, Cann, and Hanks (2010b) stress that unexpected death, such as the death of a child, is less consistent with most assumptive world views than natural death, and as a result may lead to greater growth. The experience of loss of a child may increase perception about oneself and dealing with future life difficulties. The loss of a child can help one to be more compassionate towards others and to develop new possibilities, assume new roles and responsibilities. The experience of the death of a child may make parents more conscious of mortality, which can lead to an increased appreciation of life and deepening of spirituality (Calhoun, Tedeschi, Cann, & Hanks, 2010; Pan, Liu, Li, & Kwok, 2016).

Social support, understood as a resource provided by others, which helps the individual in difficult situations (Şek & Cieślak, 2004), is believed to play an important role in the process of adaptation to trauma. Social support facilitates more effective ways of coping, allows the expression of negative emotions and enhances mental welfare. It is also a factor which in-

creases the likelihood of positive changes after trauma. Its value is associated with the fact that it is believed to mobilize the person who has experienced trauma to cognitive activity, primarily in the form of reflective ruminating concerning the experienced situation, with the aim of finding ways to resolve the problem (Ogińska-Bulik, 2013a, 2016; Tedeschi & Calhoun, 2004).

Previous research, the vast majority of which addressed somatic diseases, indicated the presence of a positive relationship between social support and PTG (Lelorain, Tessier, Florin, & Bonnaud-Antignac, 2012; Nenova, DuHamel, Zenon, Rini, & Redd 2013; Ogińska-Bulik, 2013a; Schroevers, Helgeson, Sanderman, & Ranchor, 2010). A positive but weak correlation between social support and PTG has also been observed in representatives of the emergency services (Ogińska-Bulik, 2013b) and those in mourning after the loss of a loved one to AIDS (Cadell, Regehr, & Hemsworth, 2003).

Nevertheless, some studies indicate a lack of relationship between social support and positive posttraumatic changes (Cieślak et al., 2009; Sheik, 2004). The ambiguity of the results suggests the need for further analysis in this area.

The aim of the present study is to determine whether a relationship exists between social support and the occurrence of PTG following the loss of a child, and to examine its nature. The adopted research model is based on that of the PTG concept by American researchers (Calhoun, Cann, & Tedeschi, 2010a; Calhoun, et al., (2010b), highlighting the important role played by social support in the presence of positive posttraumatic changes. So far, there is no Polish study indicating for the relationship between social support and PTG in people who lost their child. The study addresses the following research questions:

- Does PTG occur in parents who have experienced the loss of their child, and to what extent?
- Are such variables as age, sex, the intensity of the trauma suffered, the circumstances in which there was a loss of a child, and the length of time since an experienced event associated with the severity of PTG?
- Does a relationship exist between social support and PTG?
- Which types of support (received, desirable, emotional, practical) are predictors of growth after trauma?

PARTICIPANTS AND PROCEDURE

The study included 80 parents who had suffered the loss a child as a result of various events. Recruitment was conducted using the snowball method¹. The respondents were informed of the purpose of the study and were assured of their anonymity. They filled in the questionnaires in the presence of the person

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leading the study². The study was approved by the appropriate Commission of Bioethics. In total, 76 people completed the questionnaires, and these were included in the analysis³. This number included 34 men (44.70%) and 42 women (55.30%) aged 18 to 62 years ($M = 35.88$, $SD = 9.52$).

Around half of those studied (47.40%) had lost a child before birth, as a result of miscarriage, and 52.60% after birth as a result of death resulting from various events such as illness, accident, injury or suicide. The time since the loss of the child varied. Around 25.00% of those studied had lost a child in the course of the year before the study, 23.70% in the course of one to two years, 27.60% between two and five years, and 23.70% greater than five years.

A survey was developed for use in this study, including questions about age, sex, time since the loss of a child and circumstances of the loss. The intensity of the suffered trauma was assessed using a visual analogue scale, in which a score of one indicated very low trauma, and ten indicated very high intensity trauma. In addition, two standard tools were used: the *Posttraumatic Growth Inventory* and the *Significant Others Scale*.

The *Posttraumatic Growth Inventory* (PTGI) was designed by Tedeschi and Calhoun and adapted to Polish conditions by Ogińska-Bulik and Juczyński (2010). The tool contains 21 statements (e.g. "I changed my priorities about what is important in life"), which are evaluated with a Likert-type six-point scale indicating the degree of changes occurring as a result of the crisis suffered. The Polish version of the PTGI rates four aspects of posttraumatic growth: changes in self-perception, changes in relations with others, a greater appreciation of life and spiritual changes. The reliability of the inventory is high, with a Cronbach's α of .93 for the whole scale and from .63 to .87 for particular subscales.

The Polish adaptation of the *Significant Others Scale* (authors: Power, Champion, & Aris) by Juczyński (2014) was used to assess four types of social support: emotional and practical, received and desired. The scale consists of items related to different persons such as friends, partner, mother, father, children, brothers, sisters, other relatives, work colleagues, and so on (e.g. "Can you trust, talk to frankly and share feelings with this person?"). The items are evaluated with a Likert-type seven-point scale (from *never* to *always*). The Polish version of the scale has satisfactory psychometric properties: Cronbach's α values are .91 for support received (.83 emotional and .82 practical) and .88 for desired support (.85 emotional and .78 practical)⁴.

RESULTS

The distributions of the two analysed variables, i.e. PTG and social support, were normal, so parametric

tests were used. In the following steps, the mean values of the analysed variables and the correlation coefficients were calculated (Pearson's r) and regression analysis was performed (progressive step version) to evaluate the predictive role of social support for PTG.

Because the way of experiencing mourning after the loss of a child in the perinatal period (before birth) is different from that in the postnatal period (after birth), the analyses were conducted separately, including the results obtained from parents who lost their child before birth (group 1) and from parents who lost their child after birth (group 2).

The result of the PTG of parents from group 1 was lower ($M = 57.89$, $SD = 16.90$) than PTG obtained by the parents from group 2 ($M = 67.52$, $SD = 14.78$, $SD = 14.78$, $t = -2.65$, $p = .010$). However, both analysed groups of parents showed an average level of PTG, taking into account norms for Polish version of the PTGI (Ogińska-Bulik & Juczyński, 2010). Differences were also found in three components of growth: changes in relations with others, appreciation of life and changes in the spiritual realm. The level of these changes was higher in the group of parents who lost their child after birth.

Parents rated the loss of their child as a traumatic event. The intensity of the experienced trauma did not differentiate the examined groups (1. $M = 8.67$, $SD = 1.33$, 2. $M = 9.17$, $SD = 1.05$, $t = -1.85$), with the results ranging from 5 to 10. However, 50.00% of the examined persons from group 2 awarded the event 10 points on the scale, compared to only 33.30% of those from the first group. The intensity of the trauma was not associated with PTG in either of the analysed groups (1. $r = .26$, 2. $r = .17$).

Age of examined parents who lost the child in both groups did not correlate with PTG (1. $r = -.20$, 2. $r = -.11$). Sex was not associated with PTG; men from group 1 presented a similar level of PTG ($M = 56.44$, $SD = 12.30$) as women ($M = 58.37$, $SD = 18.36$, $t = -.29$). Similarly, men from group 2 did not differ in level of PTG ($M = 66.80$, $SD = 15.03$) from women ($M = 68.73$, $SD = 14.78$, $t = -.39$).

Time since the loss of a child did not differentiate the level of PTG (group 1: those who had recently lost a child, i.e. within two years before the survey (shorter time): $M = 61.82$, $SD = 11.50$, those who had lost a child earlier, i.e. more than two years (longer time)⁵: $M = 54.37$, $SD = 20.25$, $t = 1.33$; group 2: those who had recently lost a child (shorter time): $M = 69.01$, $SD = 14.25$, those who had lost a child earlier (longer time): $M = 66.05$, $SD = 15.51$, $t = 1.18$).

In order to determine the relationship between social support and PTG, Pearson's correlation coefficients were calculated separately in both groups. The results are given in Tables 1 and 2.

The data presented in Table 1 indicate that in the group of parents who lost their child before birth received social support only in the practical form

Table 1

Correlation coefficients between social support and PTG in people who lost their child before birth (n = 36)

	PTG (total)	F. 1	F. 2	F. 3	F. 4
Support received (total)	.35*	.28	.25	.34*	.35*
Support received emotional	.23	.16	.17	.25	.30
Support received practical	.44**	.39*	.30	.41**	.38*
Support desired (total)	.19	.20	.05	.10	.32
Support desired emotional	.15	.16	.05	.09	.23
Support desired practical	.22	.24	.05	.11	.39*
Support emotional	.24	.19	.15	.22	.33
Support practical	.42**	.38*	.24	.34*	.45**
Discrepancy (total)	-.24	-.16	-.23	-.29	-.16
Discrepancy: emotional	-.14	-.06	-.15	-.20	-.16
Discrepancy: practical	-.33*	-.26	-.30	-.36*	.15

Note. ** $p < .01$. * $p < .05$.

F. 1 – Changes in self-perception; F. 2 – Changes in relations with others; F. 3 – Appreciation of life; F. 4 – Spiritual changes.

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Table 2

Correlation coefficients between social support and PTG in people who lost their child after birth (n = 40)

	PTG (total)	F. 1	F. 2	F. 3	F. 4
Support received (total)	.47***	.37*	.54***	.50***	.01
Support received emotional	.44**	.34*	.53***	.48**	.06
Support received practical	.47***	.38*	.52***	.50***	.02
Support desired (total)	.35*	.22	.35*	.42**	.25
Support desired emotional	.26	.15	.26	.35*	.18
Support desired practical	.42**	.28	.41*	.46**	.30
Support emotional	.42**	.30	.48**	.48**	.08
Support practical	.50***	.38*	.53***	.54***	.16
Discrepancy (total)	-.24	-.24	-.35*	-.21	.20
Discrepancy: emotional	-.29	-.25	-.40**	-.25	.14
Discrepancy: practical	-.18	-.21	-.26	-.15	.24

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

F. 1 – Changes in self-perception; F. 2 – Changes in relations with others; F. 3 – Appreciation of life; F. 4 – Spiritual changes.

is positively correlated with PTG, especially with changes in appreciation of life and changes in the spiritual sphere. There is also a negative correlation between the indicator of the discrepancy between received and desired practical support and PTG.

In the group of parents who lost their child after birth almost all types of analysed social support correlate positively with PTG. It is worth noting the differences in the power of the relationship between social support and PTG in both groups. Correlation coefficients between variables are higher in the group of parents who lost their child after birth. Differences

relate to all types of social support. It is also worth noting the positive relationship between social support and spiritual changes in persons who lost their child before birth and the lack of such a relationship in persons who lost their child after birth.

In the next step it was tested whether the four analysed forms of social support (received emotional and practical support, and desired emotional and practical support) could act as predictors for PTG and its individual dimensions separately in both examined groups. The results of the regression analysis are presented in Tables 3 and 4.

The predictors of PTG (a general indicator) in group 1 were found to be two forms of social support: received practical and emotional support. Practical support accounts for 20.00% and emotional support 11.00% of the variance of the dependent variable. While practical support increases the level of PTG, emotional support seems to reduce the level of positive posttraumatic changes.

The predictive values for PTG of analysed types of social support varied with regard to the components of PTG. Both types of received support, practical and emotional, were found to play a predictive role in the occurrence of PTG with regard to changes in self-perception ($\beta = .34, R^2 = .15$ and $\beta = -.31, R^2 = .14$). Their predictive potential in the occurrence of these changes is similar: practical support accounted for 15.00%, and emotional support 14.00% of the variance of the dependent variable. It is also important to note that the β values have different signs, indicating that practical support favours the occurrence of PTG, and emotional support seems to inhibit this growth.

Practical support received was found to be predictive of changes in appreciation of life ($\beta = .38, R^2 = .17$), accounting for 17.00% of the variance of the dependent variable. In the case of positive changes in relations with others and the spiritual sphere, predictors were not found.

In group 2 received practical support was found to be a predictor of PTG. This form of support explains 22.00% of the variance of the dependent variable. Received practical support was also a predictor for changes in self-perception ($\beta = .38, R^2 = .15$). For changes in relations with others, received emotional

support plays a predictive role ($\beta = .53, R^2 = .28$). Desired practical support was found to be a predictor of changes in the spiritual sphere ($\beta = .22, R^2 = .09$). None of analysed forms of social support plays a predictive role for appreciation of life.

DISCUSSION AND CONCLUSIONS

The loss of a child was a traumatic event for the tested subjects, as evidenced by a high score concerning the evaluated intensity of the trauma. Despite this, these tests revealed positive changes resulting from the experienced event, i.e. loss of a child. It means that parents who have to struggle with such a devastating life event as death of a child may experience themselves as being stronger psychologically, although the loss of a child after birth was associated with a greater level of PTG than the loss taking place during pregnancy. It suggests that postnatal loss may be a more challenging situation for people than perinatal loss, but this thesis requires further investigation. It may be related to the high level of parents' attachment with the born child. Pan, Liu, Li, and Kwok (2016) stressed that a stronger attachment may have formed with the born than the unborn child.

It is important to note that occurrence of PTG does not indicate satisfaction with the existing state or a feeling of happiness. Positive changes associated with loss of a child do not occur in place of grief and other negative psychological outcomes. They rather occur in conjunction with grief. While those who have experienced the loss of someone close will experience

Table 3

Predictors of PTG (total) in the group of people who lost their child before birth

Predictors:	β	SE β	B	SE B	t	p
Support received practical	.46	.30	18.97	5.39	3.51	.010
Support received emotional	-.71	.30	-13.05	5.56	-2.34	.050
Intercept			30.56	13.92	2.19	.050

$R = .56, R^2 = .33$

Note. β – standardized regression coefficient; SE β – standard error of beta, B – non-standardized regression coefficient; SE B – standard error of B, t – test t value; p – level of significance; R – correlation coefficient; R^2 – determination coefficient.

Table 4

Predictors of PTG (total) in the group of people who lost their child after birth

Predictors:	β	SE β	B	SE B	t	p
Support received practical	.43	.33	7.45	5.60	2.72	.010
Intercept			31.04	21.64	1.43	n.s.

$R = .59, R^2 = .22$

Note. β – standardized regression coefficient; SE β – standard error of beta, B – non-standardized regression coefficient; SE B – standard error of B, t – test t value; p – level of significance; R – correlation coefficient; R^2 – determination coefficient; n.s. – non-significant.

sadness and regret for a time, the passing of time will see the emergence of more positive emotions, such as hope and optimism, which will favour the occurrence of positive posttraumatic changes (Hogan & Schmidt, 2002; Kaltman & Bonanno, 2003; Znoj, 2006). Moreover, the encounter with loss and trauma is not the only context in which people can grow and develop.

Sex, age of respondents, the intensity of experienced trauma, and time since the loss of a child were not related to the degree of PTG. The findings are partly in line with the results of other studies. For example, in the study by Büchi et al. (2009) socio-demographic variables were not related to PTG and no effects of time since loss of a child were found. However, research conducted by Engelkemeyer and Marwitt (2008) and Polatynski and Esprey (2000) revealed that a longer time since the child's death was positively related to the bereaved parent's PTG. Also, a Chinese study conducted in parents who lost their only child indicated a negative, although poor, relationship between time since the experienced event and PTG (Pan, Liu, Li, & Kwok, 2016).

The findings confirm the significant role played by social support in the process of posttraumatic growth, especially in people who lost their child after birth. The occurrence of PTG was favoured most by received support of a practical nature. This is partly in agreement with the results of studies of cancer patients (Schroevs et al., 2010), which showed that the main predictor of PTG was received support, but of an emotional character. Nenova et al. (2013) reported a positive association between both forms of support received from spouses or partners; however, instrumental (practical) support was a stronger predictor. A positive relationship between social support and PTG in parents who had lost their child was reported by Hogan and Schmidt (2002) and Znoj (2006).

The associations between social support and PTG were found to be stronger in people who had lost their child after birth than those who had lost their child before birth. Differences were related to all areas of PTG. It indicates that social support is particularly important for the occurrence of posttraumatic positive changes in people who have lost a born child. However, to maintain or increase growth, social support needs to be stable and consistent over time (Tedeschi & Calhoun, 2004).

It is worth noting that social support, irrespective of its type, is a significant factor in the process of effective coping with experienced trauma. Moreover, social support may reduce emotional stress, encourage people who have experienced a traumatic event to ruminate on the event, especially the deliberate form, and in consequence to rebuild destroyed beliefs and assumptions of the world.

However, it is important to remember that social support is not always desired. Sometimes a person who has undergone trauma does not desire help from

others, or the support given by others may be regarded as ineffective.

The present study has some limitations. The findings were obtained from a small number of subjects. Some losses were experienced at a distant time. The study group included people who had experienced death of a child before (as a result of miscarriage) and after birth. The relationship between PTG and type of child's death after birth was not analysed, because of the small number of subjects. Available data (Lichtenthal, Neimeyer, Currier, Roberts, & Jordan, 2013) indicate that bereaved parents whose children died of illness report higher levels of PTG than those whose children died of injury (i.e. accident, suicide, and homicide). The findings were confirmed by Pan, Liu, Li, and Kwok (2016).

The subjects of the study were recruited using the snowball method, which may affect the findings. Intensity of trauma was measured with only one item and not with a standard questionnaire. The analysis did not include the negative effects of loss such as posttraumatic stress disorder or the experienced emotions. The parent-child emotional bonds were not analysed. In addition, it was not tested whether there had occurred traumatic events other than the loss of a child, which may also have an influence on the results. The study is of a cross-sectional nature, which does not permit unambiguous conclusions to be drawn regarding the cause-effect relations.

However, despite the study limitations, the obtained results add new knowledge concerning the relationship between social support and the occurrence of positive posttraumatic changes, and indicate the importance of received practical support. The findings provide external validity to the theory and research of PTG. The results may be helpful to increase the awareness of bereaved parents about the possibility of occurrence of positive changes and significance of social support. They may encourage those who have experienced trauma to seek social support, and its use may not only allow the process of adapting to the present situation, but also favour the occurrence of positive posttraumatic changes. The results may also be encouraging to clinicians, who help people suffering from trauma, especially to explore the assumptive world and core beliefs of bereaved parents.

The paucity of studies, as well as the complexity of the discussed issues, indicates the need for further exploration in this area. It is recommended to include both parents who have lost a child and analyse the specific source of support. It would also be useful consider the personal characteristics of those who have suffered loss and the coping strategies they employ.

The findings allow the following conclusions to be drawn:

- The loss of a child may be associated with the occurrence of positive changes in the area of human psychosocial functioning.

- Postnatal loss is associated with greater PTG than perinatal loss.
- Social support is a significant factor in the posttraumatic adaptation and the facilitation of the occurrence of PTG.
- An important role in the PTG following the loss of a child, especially after birth, is fulfilled by received support of a practical nature.

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ENDNOTES

- 1 This is a non-random method of recruiting a sample of subjects for tests by other participants. The snowball method is particularly useful in tests of social groups who may be difficult to recruit, including those in particularly difficult life situations.
- 2 The study was conducted by the participant of a master seminar.
- 3 Four persons were excluded from the analysis for failing to complete the questionnaires.
- 4 General indicators were calculated for different types of support, and not support from specific people.
- 5 Because of the small number of participants, they were divided into two groups: shorter and longer time since the loss of a child.

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