



## Emotional disclosure for whom? A study of vagal tone in bereavement

Mary-Frances O'Connor\*, John J.B. Allen, Alfred W. Kaszniak

*Department of Psychology, University of Arizona, Tucson, AZ 85721, USA*

Received 29 September 2003; accepted 9 April 2004

Available online 24 June 2004

---

### Abstract

Recent investigations have shown little evidence that written disclosure benefits bereaved individuals over a control condition. The present study hypothesized that the effectiveness of written disclosure for bereavement may be moderated by vagal tone, as indexed by respiratory sinus arrhythmia (RSA). Vagal tone has been identified as an important individual difference in depression. The present study investigated 35 bereaved participants in a longitudinal design, with participants writing each week for 3 weeks, and then participating in follow-up sessions 1 week and 1 month later. As with previous studies, bereaved participants showed improvement, although no differential improvement was seen in the emotional Disclosure group compared to a Control writing group. As hypothesized, however, those participants with the highest RSA benefited most from the written disclosure, while RSA level did not predict outcome in the control condition. Future research should investigate whether vagal tone moderates the impact of written disclosure for non-bereaved individuals.

© 2004 Elsevier B.V. All rights reserved.

*Keywords:* RSA; Vagal tone; Bereavement; Depression; Emotional disclosure; Parasympathetic

---

### 1. Introduction

Motivated by reports of the beneficial effects of written personal disclosure on mental and physical health (Pennebaker, 1993, 1997), several recent investigations have examined written disclosure for bereaved individuals (Kovac and Range, 2000; Range et al., 2000;

---

\* Corresponding author. Present address: Neuropsychiatric Institute and Hospital, University of California, Los Angeles, 760 Westwood Plaza, C8-746, Los Angeles, CA 90024-1759, USA. Tel.: +1 310 825 1638; fax: +1 310 206 8525.

*E-mail address:* [mfoconnor@mednet.ucla.edu](mailto:mfoconnor@mednet.ucla.edu) (M.-F. O'Connor).

Segal et al., 1999; Stroebe et al., 2002). Despite the generally positive effects of written disclosure among the general population, these studies found little evidence to support the use of written disclosure for bereaved persons. Three of these investigations addressed both psychological and health outcomes (Kovac and Range, 2000; Range et al., 2000; Segal et al., 1999), with little differential improvement observed in the group that wrote about their feelings in response to the death as compared to a group that wrote about trivial topics. These studies utilized multiple outcomes, increasing the likelihood that a positive result would be obtained. In one study, a small improvement in self-reported hopelessness was observed (Segal et al., 1999), and in another (Kovac and Range, 2000), improvement was seen using a measure specific to grief following a suicide.

In a review of several studies using this basic writing paradigm for bereaved individuals, Pennebaker et al. (2001) have proposed that written disclosure may work best under certain conditions and for particular persons. Their hypotheses are based upon work done with bereaved and non-bereaved persons. These conditions and individual characteristics include a sudden death (with the presumed greater need to come to some understanding of the unexpected death), bereaved individuals who avoid emotion, and when physical health rather than negative mood is the outcome variable (Pennebaker et al., 2001).

The most recent published report (Stroebe et al., 2002) focused on expectedness of the death and need for disclosure as moderating variables, as Pennebaker et al. (2001) proposed. The writing task did not result in a reduction of distress nor of doctor visits, immediately after the bereavement or at a 6-month follow-up. Importantly, neither unexpectedness of the loss nor a high need for disclosure resulted in any greater improvement.

It remains possible that these studies did not find an overall differential benefit of disclosure because unassessed individual differences moderated the response to the intervention. The written disclosure may have been effective for some, but not necessarily for the majority of bereaved individuals. The present study hypothesized that written disclosure could be effective for those with good physiological self-regulation. Individual differences in physiological self-regulation, as a moderator of the written disclosure paradigm, have not previously been investigated. The following brief review of physiological self-regulation highlights why it may be an important moderating variable in the bereavement process.

### *1.1. Physiological self-regulation*

Vagal tone has been hypothesized as an autonomic correlate of emotional expression, emotional reactivity, and emotional self-regulation (Porges, 1991, 1997). Although frequently used as an indication of individual differences in self-regulation within the infant development literature, such as studies concerned with sociability in children (Calkins and Fox, 1992), it has only recently begun to be used in research with adults. Moreover, vagal tone has been shown to have an important role in depression (Chambers and Allen, 2002; Hughes and Stoney, 2000; Musselman et al., 1998; Rottenberg et al., 2003; Yeragani et al., 2002).

The vagus nerve provides an inhibitory regulatory influence on the heart, allowing heart rate to increase rapidly through vagal withdrawal, as in response to a stressor in one's environment. Vagal withdrawal usually co-occurs with an increase in sympathetic activation of the heart, or what has come to be known as the fight-or-flight response. Vagal tone reflects the degree to which there is tonic vagal influence on the heart, and can be measured by

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات