Introduction

Pennebaker’s Writing Paradigm
- Experimental design in which participants are instructed either to write about emotional events or neutral topics
- Those assigned to emotional writing condition typically display physical and psychological health improvements as compared to those in neutral condition (Pennebaker, 1997; Smith, 1998)
- Narrative coherence and presence of emotion words may be important for positive outcomes (e.g., Pennebaker, 1993; Pennebaker, 1997)

Betrayal Trauma Theory (Freyd, 1996, 2001)
- Distinguishes traumas on the basis of at least two event dimensions which may elicit different reactions: life-threat (e.g., major car accident; violent rape by a stranger) and social betrayal (e.g., abuse by a close other)
- Trauma high in betrayal is perpetrated by someone who is close to the victim and/or upon whom the victim is dependent
- Associated with impaired memory for trauma, presumably for purpose of preserving victim-perpetrator relationship, and various negative sequelae, including dissociation, depression, anxiety and physical ailments (e.g., Freyd, Klett, & Allard, 2004)

Rationale
- Up until now, paradigm has mostly been applied to emotional but not necessarily traumatic events
- Those few studies involving traumatic writing have only included one-time non-complex traumas low in betrayal
- Primary objective: to test generalizability of emotional writing to betrayal trauma
- Secondary goal: to investigate mechanism behind writing phenomenon by elucidating essay characteristics associated with positive outcomes

Method

Participants
- 65 (51 female, 14 male) physically symptomatic undergraduates recruited from psychology department Human Subjects Pool, and compensated with choice of partial course credit or $7
- Demographics (representative of UD undergraduate population): Age: M = 19.94 years (SD = 3.98) and mostly (94.4%) single
- Ethnicity: 67 (93.1%) Caucasian; 2 (2.8%) each Asian, African American, Hispanic, Pacific Islander; and 1 (1.4%) American Indian

Assessments
- Trauma assessed at pretest using Brief Betrayal Trauma Survey (Goldberg & Freyd, under review)
- Psychological health assessed at pre and posttest with time-bound* version of Trauma Symptom Assessment (Pennebaker, 1989)
- Physical illness symptoms assessed at pretest

Procedures
- Random assignment to intervention of 2 x 20-minute writing assignments one week apart
- Procedures similar to Betrayal Trauma Survey (Goldberg & Freyd, under review)
- Instructions delivered to writing conditions

Content Analysis of Essays
- Counted number of emotion and coherence related words using Pennebaker’s Linguistic Inquiry and Word Count computer program (Pennebaker, Francis & Booth, 2001) - see Table 1 in handout for examples
- Word counts used as predictor variables in regression analyses predicting physical and psychological symptom scores at posttest

Discussion

The large number of participants reporting high betrayal trauma is not surprising given that they were a highly physically symptomatic group, and many chronic pain disorders and chronic health problems have been found to be related to trauma (e.g., Feldt, 2002). That women reported experiencing more high betrayal trauma than men replicates previous findings (Goldberg & Freyd, under review).

The different types of traumas reported by the women and men of this study, and the differential results of the writing intervention for each gender, suggest it would be fruitful to consider the type of trauma experienced by an individual when considering intervention strategies for trauma.

Directing the writing process to include those components found to be related to better outcomes may enhance the effectiveness of a writing intervention. For example, it appears that positive outcomes are related to the use of emotional words, at least for women. Coherence, on the other hand, as measured through causation and insight words in this study, appears to have little bearing on writing outcome. However, it is debatable whether counting these words is sufficient in judging essay coherence.

Research is currently underway to attempt to assess coherence in a more meaningful way, and to replicate these findings in a larger and more heterogeneous population of community adults participating in a similar intervention study with a longer followup interval.

Summary of Results

Descriptives
- Over 50% of all participants reported having experienced at least one betrayal trauma
- Women reported more betrayal trauma than men (see Figure 1)
- Significant correlations between physical and health symptoms and betrayal trauma

Intervention Results
- No significant overall main writing or gender effect on symptomatology outcome
- A significant gender by writing condition interaction emerged, which revealed that women in trauma writing condition benefitted more than men over time
- Women in trauma writing condition benefitted more than men over time
- Women benefited from writing emotional words in the trauma condition

Content Analysis Results
- Generally, greater number of emotion words used in essays significantly predicted decreases in physical and psychological symptoms at posttest for women (see Table 2 in handout): More total emotion words used predicted decreased sleeping difficulties. More total emotion words also predicted decreased physical symptoms, particularly positive emotions in terms of optimism and energy, and negative emotions in terms of anxiety and fear
- More anxiety or fear words predicted decreased overall psychological symptoms (TSC Total) and specifically dissociation
- However, more anxiety or fear words predicted increased/sexual problems
- Number of anger and sadness or depression were not found to significantly predict posttest scores

Mixed results for emotion words were found for men:
- More total emotion words used predicted decreases in depression and sexual problems
- However, more positive feeling words predicted increases in post sexual abuse trauma reactivity symptoms, number of days sick, and number of days activities are restricted due to illness
- And, increases in post sexual abuse trauma reactivity symptoms were predicted by use of more anxiety or fear words

Insight words predicted posttest scores for women only:
- More insight words were found to significantly predict decreased physical symptoms as well as number of days activities were restricted by illness
- However, more insight words were found to significantly predict increased/sexual problems

Neither the number of total cognitive process nor causation words were found to significantly predict posttest scores for either gender.