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ONE VERSUS FIVE SESSIONS OF APPLIED TENSION IN THE TREATMENT OF BLOOD PHOBIA

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Summary—Thirty patients with blood phobia, fulfilling the DSM-III-R criteria for simple phobia, were assessed with behavioral, physiological and self-report measures. They were randomly assigned to 3 different conditions: (1) 5 sessions of applied tension; (2) 1 session of applied tension (maximum 2 h); and (3) 1 session of tension-only (maximum 2 h). The results showed that the patients in the 3 treatments were all significantly improved at post-treatment and the effects were maintained at the 1 yr follow-up. At post-treatment and follow-up the proportions of clinically improved patients were: AT5 50 and 60%, AT1 0 and 70%, and T1 30 and 60%, respectively. The conclusion that can be drawn is that 1-session therapist-directed applied tension or tension-only is the treatment of choice for blood phobia, but completed with a maintenance program of self-exposure.

INTRODUCTION

Specific phobia is the most common of the anxiety disorders with an estimated lifetime prevalence of 10–11.3% (DSM-IV, American Psychiatric Association: APA, 1994). Fear of blood, wounds, injuries, etc. is termed "blood phobia" and has a relatively high prevalence in general population. In children Lapose and Monk (1959) reported that a mild fear was present in 35% of children aged 6–12. In adults Agras, Sylvester and Oliveau (1969) reported 3.1% and Costello (1982) 4.5% in the normal population.

The definition of a person who suffers from blood phobia is someone who is afraid of and avoids situations where he or she may be directly or indirectly exposed to blood. These situations cause persons with blood phobia to experience high anxiety and, if possible, to flee. If there is no means of escape, the risk is great that there will be a rapid fall in blood pressure often causing the person to faint (Öst, 1992; Öst, Sterner & Lindahl, 1984).

People with a fear of blood are often extremely handicapped by their phobia. They avoid medical check-ups, caring for children who have hurt themselves, watching TV-programs or movies where they may see blood, and even eating or buying red meat in the supermarket. It is also very common for them to faint at the sight of blood when someone else or themselves are hurt, even very small and to others insignificant cuts. A person suffering from blood phobia is also likely to faint when they hear someone else talking about blood, e.g. in a lecture, on their coffee break or even something they overhear on a bus or train.

There are many case reports of blood phobia with different exposure treatments (Connolly, Hallam & Marks, 1976; Curtis & Thyer, 1983; Richards, 1988), or with other treatments combined with exposure as for example provoking anger in the person using appropriate imagery (Cohn, Kron & Brady, 1976), systematic desensitisation (Yule & Fernando, 1980), cognitive restructuring (Wardle & Jarvis, 1981), and with eye movement desensitisation (Kleinknecht, 1993).

There are only three controlled outcome studies of blood phobia that we are aware of, all from our clinic (Öst, Lindahl, Sterner & Jerremalm, 1984; Öst, Sterner & Fellenius, 1989; Öst, Fellenius & Sterner, 1991). The first compared applied relaxation with exposure *in vivo* showing that the two groups improved significantly, and there were no differences between them. The treatment lasted for a total of 9 sessions over a 3-month period. The second study compared applied relaxation, applied tension and a combination of these two showing a significant improvement in all groups and no difference between the groups. The treatment time varied from 5 sessions over 5 weeks to 10 sessions over 10 weeks. The last study compared applied tension, exposure *in vivo* and

tension-only. This study showed that all groups improved significantly, but applied tension and tension-only were better than exposure *in vivo*. The treatment time was 5 sessions during 5 weeks.

Most exposure treatments have been therapist-directed, and the therapist usually has weekly sessions with the patient until the problem has been remedied. Recent research has shown that short intensive treatment produces just as good results as more spaced programs do, and could be considered the treatment of choice for specific phobias (Hellström & Öst, 1995; Öst, 1989a; Öst, Brandberg & Alm, 1994; Öst, Hellström & Kåver, 1992; Öst, Salkovskis & Hellström, 1991). This treatment has also been replicated in spider phobia (Arntz & Lavy, 1993). The studies of injection phobia (Öst *et al.*, 1992) and flying phobia (Öst *et al.*, 1994) compared the treatment of 1 session and 5 sessions, yielding equally good results for both treatments.

Considering these studies, it seems that applied tension and tension-only are both treatments of choice for blood phobia and that massed exposure works as well as spaced exposure for specific phobias. This raises many questions in the treatment of blood phobia. One question is if it is possible to decrease the time for applied tension and tension-only with the same good results? Another question is if it is possible to treat blood phobia in 1 session, and a third question is if it is possible to treat blood phobia in 1 session without exposure.

The primary purpose of this study was to compare 5 sessions with 1 session of applied tension to see if it is possible to decrease the time, and to treat blood phobia in 1 session, without losing in clinical efficacy. The secondary purpose was to compare the two different forms of 1-session treatment to see if the exposure component in the applied tension treatment is necessary. The hypothesis is that there will be no difference between applied tension 1 session and applied tension 5 sessions. The second hypothesis is that tension-only is equal to applied tension when both are done in 1 session.

METHOD

Subjects

The *S*s for the study were recruited through advertisements in local newspapers, or were referred by their physicians in the Uppsala County. There were 30 patients, 19 women and 11 men and all had been diagnosed with simple phobia of blood according to DSM-III-R (APA, 1987). A re-diagnosis of the *S*s after the arrival of DSM-IV (APA, 1994) showed that all patients fulfilled the criteria for specific phobia, blood–injection–injury type. In order to be included in the study, the following criteria had to be fulfilled.

1. Be between the ages of 18–60 yr.
2. Be afraid of and exhibit avoidance of a number of situations where confrontation with blood, wounds and injuries occurred, this being the primary problem for which the patient had sought help.
3. A minimum of 1 yr duration of the phobia.
4. Be willing to participate in the study for a period of 5 weeks (and the 1 yr follow-up).
5. Not watching the film (see behavioral measures below) for more than 20 min.
6. Have no other psychiatric problems requiring immediate attention.
7. Have no psychotic or organic illness disorder.
8. Have no disease of the heart or lungs.
9. Not to receive any other kind of psychological or psychiatric treatment during the study.

Fifty-two patients were referred to the study and were screened using a modified version of Anxiety Disorders Interview Schedule-Revised (Di Nardo & Barlow, 1988), yielding DSM-III-R anxiety diagnoses. Of these, 30 fulfilled the criteria, while 22 did not. Those excluded were either not phobic enough, i.e. they watched the entire film ($n = 16$), or had other phobias as their primary problem ($n = 6$).

The mean age of the patients was 29.5 yr (SD = 9.8; range 18–54), and the average duration of their phobias was 21.0 yr (SD = 8.7; range 3–36). Thirteen of the patients were married or living together with a steady partner, 15 were single and 2 divorced. There were 27 who worked or studied full-time, 2 part-time and 1 patient was unemployed. All the patients were handicapped by their