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Clinical Section

AN EVALUATION OF THE IMPACT OF AN INDIVIDUALLY ADMINISTERED VIDEOTAPE FOR PEOPLE WITH PANIC DISORDER

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Abstract. This preliminary study examined the short-term effect of a videotape intervention "Step-by-Step" on 30 individuals referred with symptoms of panic disorder, before they had received any formal support from mental health services. It was hypothesized that a videotape intervention would reduce the symptoms and the frequency and strength of maladaptive cognitions associated with the consequences of having a panic attack, more effectively than the same information in written form. The results of this small scale study are promising. Some interesting trends were found within the video group, which provide some evidence to support the research hypotheses.

Keywords: Panic attacks, anxiety disorders, cognitive behavioural, video intervention.

Introduction

Marks (1991) argues for the need to develop and evaluate self-help technology for exposure treatments. Such development is desirable because it may save valuable clinician time and enhances a client's own problem-solving skills. A video was considered to be an effective method of teaching some self-help techniques, based on cognitive-behavioural principles, to people who suffered from panic attacks. Video was seen as a particularly useful medium for several reasons: it is possible to demonstrate skills and allow observational learning much more effectively than is possible through the written word. Also, recovered sufferers can give accounts of their condition and testimony to the effectiveness of the treatments demonstrated by giving anecdotes of their recovery. Video also has the benefit of being a medium with which most people are familiar. Most people watch television frequently and have access to a video player. Indeed, video equipment is now commonplace in many health settings.

A review by Gagliano (1988) of the efficacy of video in patient education found few methodologically sound studies; but sufficient to suggest that video is as good as traditional forms of education, at least in the short-term. Also, it is the components of

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modelling plus information, as opposed to information alone, that are the key ingredients to a favourable outcome. Barker, Pistrang, Shapiro, Davies and Shaw (1993), following an evaluation of a mental health television series, suggested that identification with the model contributes positively to therapeutic impact. Some studies have shown video tape modelling to be useful in parent training and marital communication. There are also promising findings that video presented information can help people's entry into therapy. Schotte et al. (1993) found that depressed patients found a video about cognitive therapy to be useful to their understanding of what therapy involved and thus facilitated their engagement with treatment.

A video, "Step by Step – A way of coping with panic", was produced for sufferers of panic attacks, with or without agoraphobia. To maximize its applications, it was designed to be used in several settings: as a self-help aid independent of treatment, as an adjunct to psychological and medical treatment already available, and for use in anxiety management groups. It demonstrated a basic cognitive model of panic considering somatic symptoms, thoughts and behaviours. It showed how to construct a graded exposure hierarchy and included a section on controlling breathing. The information was presented through accounts from four recovered sufferers (10 minutes), the demonstration and modelling of a person working through a graded exposure hierarchy (10 minutes), two health professionals talking about the cognitive model and the rationale of self-help techniques (10 minutes), and a demonstration of a breathing exercise (6 minutes). In addition, there were computerized graphic sequences summarizing key information (5 minutes).

This preliminary study aimed to assess the impact of the video, in a self-help context, in comparison with the same information presented in written form. It did not attempt to test the efficacy of the video as a sole intervention in the treatment of panic disorder, but rather to compare the same information presented through two different mediums. Key hypotheses in examining whether the additional expense of video was justified were:

1. Participants who received the videotape intervention would produce more positive impact ratings for their understanding and insight into their problems than those who had received the booklet. This was measured by an adapted version of the Therapeutic Impact Rating System.
2. The video would have a greater effect than the booklet in reducing the frequency and intensity of panic related cognitions, as measured by the Agoraphobic Cognitions Questionnaire.

Method

Participants

The participants were 30 people who had been referred to mental health services and who were briefly assessed as having panic disorder, with or without agoraphobia, as the primary difficulty. The sample were selected from a population who had been referred to the adult mental health services of three NHS Trusts, after being identified as having panic symptoms. Selection was made either by clinicians doing brief assessment for anxiety management groups or from referral letters if they contained sufficient

information. Potential participants who had received treatment previously were excluded from the study, as were those who had other psychiatric problems such as generalized anxiety disorder and depression. Four cases were excluded at interview.

Ten males and 20 females participated. The mean age was 37 years (range 22–52 years). All satisfied the criteria for panic disorder as outlined in DSM-IV, as measured in a postal questionnaire and interview. Once participants were engaged in the study, there was a very high retention rate, with only one participant in the control group failing to return the final follow-up questionnaire. A symptom checklist, based on a validated screening instrument (the HSCL-90; Derogatis, 1977), was also administered at each state of the study.

Design and procedure

An independent groups design was employed, with a stratified population randomly allocated to either the video, written or the waiting list control group. Repeated measures of cognitions were obtained at pre-intervention (postal), post-intervention (interview), and six week follow-up (postal). The impact ratings were obtained immediately following intervention, i.e., viewing the video or reading of the booklet. At the pre-intervention and post-intervention stage of the study, none of the participants had received any significant form of support from mental health practitioners, other than a brief assessment. By the time of follow-up, all participants were receiving treatment. No problems obtaining access to a video player were reported by the video group. The booklet contained the same information as the video, though stylistic changes were made to the booklet to suit the medium of presentation.

Once participants had agreed to take part, they were contacted by the researcher either by phone or in writing, and were then sent a postal questionnaire. Upon return of this, the experimental groups were sent either the video or the booklet, with instructions to view or read once only and then complete the evaluation forms. All participants, including the control group, were then sent an appointment for an interview at their home within two weeks of receiving the interventions. The researcher checked that they had complied with the procedure and collected subjective data on symptom severity, psychiatric history and subjective impressions of the video. Repeated measures of cognitions were obtained by a postal questionnaire six weeks after the interview.

Measures

To measure impact, an adapted version of the Therapeutic Impact Content Analysis System devised by Elliott, James, Reimschuessel, Cislo and Sack (1985) was used. This was originally designed for use in psychotherapy process research. Thirteen items were selected from the categories of Elliott's original scale of Task, Content and Interpersonal Impacts which respondents had to rate along the dimension of agree/disagree. Sample items: Task – "*It gave me a clearer understanding of my own problems*": Interpersonal – "*It started me thinking and I felt better about what I needed to do*". This adaptation was similar to that used by Barker et al. (1993) in assessing the impact of mental health television programmes on viewers.

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Cognitions were measured by the Agoraphobic Cognitions Questionnaire (Chambless, Caputo, Bright, & Gallagher, 1984) which included measures of the frequency and intensity of 18 maladaptive cognitions typical of panic disorder as rated by the participant.

The symptom measure was based on the Hopkins Symptom Checklist (HSCL-90; Derogatis, 1977). The adapted version consisted of the eight items from the phobic-anxiety subscale of the HSCL-90, which subsume a set of behaviours associated with panic attacks, panic disorder and agoraphobia. In addition, four items from the somatic subscale, which loaded heavily on the phobic-anxiety subscale, were added (Derogatis, 1977). Thus a final symptom checklist of 12 items was produced.

Participants were asked to read each statement in the checklist of problems and rate, on a five point scale, how much their difficulties had improved.

Analysis

The distribution of scores in the video and the comparison groups, at pre-intervention, post-intervention interview and follow-up, were compared using the Kruskal Wallis non-parametric one-way ANOVA procedure, with Mann-Whitney *U*-tests (two-tailed) comparisons. Within groups analyses, using Wilcoxon Matched-Pairs Signed Ranks test (two-tailed) were applied to examine differences in mean scores, within the individual study groups, between each stage of the study.

The pre-intervention and post-intervention means refer to the scores obtained before and after the introduction of the research package. For the waiting list control group, with the exception of impact ratings, the assessment procedure was the same as the intervention groups.

Results

Impact ratings

The mean scores for each dimension of impact are given in Table 1. Mann-Whitney *U*-tests revealed that the video was rated more positively than the written intervention for the Interpersonal, Task and Content dimensions of impact. Particularly high ratings were given for the Interpersonal dimension of impact ($p < .01$, two-tailed test).

Cognitions

The mean frequency ratings are given in Table 2a and intensity ratings are given in Table 2b. Wilcoxon Matched-Pairs Signed Ranks tests revealed that between the pre- and post-intervention state of the study, the mean frequency rating within the video group reduced significantly ($p < .05$, two-tailed test) and was maintained at follow-up. Within the two comparison groups there were no significant changes. Though there was an observed decrease in frequency ratings within the experimental groups, there were no significant differences between the groups.

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Table 1. Mean impact ratings

Impact dimension	Video group ($n = 10$)	Written group ($n = 10$)
Task	*1.92 ($SD = .76$)	2.90 ($SD = .95$)
Interpersonal	**1.70 ($SD = .71$)	2.85 ($SD = .85$)
Content	*1.70 ($SD = .62$)	2.56 ($SD = .83$)
Hindering	2.90 ($SD = 1.04$)	3.02 ($SD = 0.82$)

* Denotes significance at $p < .05$; ** denotes significance at $p < .01$.
Note. Score range from 1.0 (agree a lot) to 5.0 (disagree a lot). Thus, low scores represent a higher level of agreement.

Table 2a. Mean frequency ratings of cognitions over the study period

Study group	Pre-intervention ($n = 30$)	Post-intervention ($n = 30$)	Follow-up ($n = 29$)
Video	2.60 ($SD = .90$)	*2.14 ($SD = .58$)	2.07 ($SD = .90$)
Written	2.46 ($SD = .74$)	2.20 ($SD = .54$)	2.23 ($SD = .65$)
Waiting list control	2.83 ($SD = .35$)	2.61 ($SD = .46$)	2.57 ($SD = .35$)

* Denotes significance at $p < .05$.
Note. Score range from 1.0 (never occurs) to 5.0 (always occurs). Thus, a low score represents a low estimated frequency of occurrence.

Greater changes were observed within the intervention groups for the ratings of intensity of cognitions. Post-hoc Wilcoxon analyses revealed that within the video group there was a significant decrease in the mean intensity rating ($p < .01$, two-tailed test) at the post-intervention stage of the study. The written group also produced a significant decrease in intensity ratings at the same stage of the study, but the magnitude of the reduction was less than the video group ($p < .05$, two-tailed test). As with the frequency ratings, there was a downward trend in the experimental groups, but this did not achieve significance in comparison with the control group.

Symptoms

Two dimensions of symptomatology were produced from the Symptom Checklist, i.e., ratings of phobic-anxiety and somatic symptoms. These were analysed separately at

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Table 2b. Mean intensity ratings of cognitions over the study period

Study group	Pre-intervention ($n = 30$)	Post-intervention ($n = 30$)	Follow-up ($n = 29$)
Video	36.96 ($SD = 21.58$)	**27.25 ($SD = 16.28$)	31.33 ($SD = 22.43$)
Written	34.62 ($SD = 17.87$)	*26.75 ($SD = 16.08$)	26.67 ($SD = 15.84$)
Waiting list control	39.00 ($SD = 10.51$)	39.25 ($SD = 11.43$)	34.54 ($SD = 12.57$)

* Significance at $p < .05$; ** denotes significance at $p < .01$.
Note. Score range from 0 (I do not believe this thought at all) to 100 (I am completely convinced this thought is true). Thus, a high score represents a high intensity rating.

each stage of the study. The mean ratings for these dimensions are shown in Table 3. Kruskall-Wallis H tests were conducted at each stage to compare the mean symptom ratings between the three groups. These analyses showed no significant differences between the groups in self-rated symptoms. However, within groups analyses revealed a trend within the video group. Separate Friedman two-way analyses of variance tests indicated that within the video group there was a significant difference in the ratings of phobic-anxiety across the study period (shown in Table 4).

Table 3. Mean ratings of somatic and phobic anxiety symptoms at each stage of study

Study group	Pre-intervention ($n = 30$)	Post-intervention ($n = 30$)	Follow-up ($n = 29$)
Somatic			
Video	2.85 ($SD = .74$)	2.88 ($SD = .80$)	2.73 ($SD = 1.02$)
Written	3.22 ($SD = .84$)	3.08 ($SD = .84$)	2.85 ($SD = .82$)
Waiting list control	3.47 ($SD = .79$)	3.20 ($SD = .71$)	2.97 $SD = .70$)
Phobic anxiety			
Video	3.32 ($SD = 1.32$)	3.18 ($SD = 1.22$)	2.79 ($SD = 1.24$)
Written	2.86 $SD = .90$)	2.91 ($SD = .85$)	2.74 ($SD = .94$)
Waiting list control	3.26 ($SD = .73$)	3.74 ($SD = 1.63$)	3.46 ($SD = .70$)

Note. Score range from 1.00 (not at all) to 5.00 (extremely). Thus a high score represents a high symptom rating.

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Table 4. Friedman two-way ANOVA: the video group

	Results of Friedman test			
Symptom dimension	Mean rank ($n = 10$)	Chi-square	*df*	Significance level (2-tail)
Phobic – anxiety	Pre = 2.10 Post = 2.00 Follow-up = 1.40	7.200	2	0.0273*
Somatic symptoms	Pre = 2.15 Post = 2.00 Follow-up = 1.85	0.4500	2	0.7985

* Denotes significance at $p < .05$.
Note. Pre = pre-intervention, post = post-intervention.

Separate Wilcoxon Matched-Pairs Signed Ranks test confirmed that the decrease in rating between the post-intervention and the six week follow-up stage was statistically significant ($Z = -2.0896$; $p < .05$, two-tailed test). At this stage of the study, all participants had been seen by a mental health professional. The mean ratings for each participant of symptom improvement were 2.20 for the Video group ($n = 10$), 2.40 for the Written group ($n = 10$), and 3.00 for the Control group ($n = 9$). The score range was from 1 (“a lot of improvement” to 5 (“much worse”). Thus, a low score corresponds with a high rating for symptom improvement.

Discussion

The pattern of impact ratings indicated that the video was evaluated more positively than the booklet. Participants indicated that they felt encouraged to engage in therapy and reassured by the explanation of symptoms and the techniques demonstrated in the videotape. It is difficult to provide definitive conclusions about the specific impact of the video; however, additional qualitative data suggested that the recovered sufferers' vignettes and the model of the person working through a graded hierarchy were evaluated as the most useful parts of the video. Participants who had received the booklet made more references to the informational content. A possible explanation of the results is that the video enabled participants to identify with the sufferer's accounts. Holden, Speedling and Rosenberg (1992) observed that important precursors to behavioural change included the relevance of the content of the videotape to the target population. Thus, the sufferers' accounts used in the videotape may have more effect if they are perceived by the viewer to match their own experience.

Both the video and the booklet groups displayed a significant reduction in the intensity to which panic related cognitions were believed to be true. For the video group, this reduction was highly significant. There was also a significant reduction in the frequency of panic related cognitions in the video group at two week post-intervention, but to a lesser extent. According to cognitive theory (Clark & Ehlers, 1993), a change in belief is an essential prerequisite for therapeutic change. The change in belief, which was higher in the video group, may have served to reduce the frequency of panic related cognitions.

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With regard to symptomatology the results are inconclusive but show some interesting trends. Within group analysis indicated that the only significant decrease in the ratings of phobic-anxiety was at six week follow-up. Interestingly, this group rated a significant improvement in their symptoms in comparison with the waiting list control group at the same stage of the study. It could be postulated that the video might serve to "prime" for successful symptom reduction in therapy. There is insufficient evidence to suggest that videotape intervention stands alone as a complete treatment package. However, this study does show that the videotape did have a significant impact on a small sample of panic attack sufferers.

Individual anecdotal response to the video and booklet also suggested that a small proportion of the video group reacted very positively to the video. Some felt it made a great difference to how they understood what was happening, and this had an effect on what they did and the symptoms they experienced. Given that the booklet and video stand as cheap interventions in comparison with therapy, they seem justified as part of a whole treatment package, if only to reinforce the messages given elsewhere.

As it appears that both video and booklet have some impact on how sufferers construe their symptoms, with the video being the more powerful of the two, what are the processes of change and why are they more powerful with some individuals than others? Is this due to the viewer's identification with what he or she says, their readiness to change, or some other process? Further research is underway to investigate whether principles developed in protection motivation theory may predict who is most likely to benefit from seeing the video. However, this small study does find some evidence to support the use of self-help materials, especially video, in helping people understand and overcome panic attacks.

Notes

This research was submitted to the University of Wales for the part fulfilment of the degree of Doctor in Clinical Psychology. For full account see Rhonwen M. Parry, *An evaluation of an individually administered video tape intervention for the treatment of panic disorder*. Unpublished doctoral thesis, University of Wales, Cardiff, 1995. Further information about the video, "Step by Step: Helping Yourself to Cope with Panic", is available from the authors.

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