

# **Effectiveness of a meditative method of therapy based on Buddhist psychology and practices: a pilot study**

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## **Summary**

Tara Rokpa (TR) is a meditative method of therapy based on Buddhist philosophy and meditation, supported by a Western psychotherapeutic orientation and methods. A field study of 74 self-selected German participants showed that TR attracts participants who are moderately more anxious, depressed and „neurotic“ than normal controls in instruments such as the Hospital Anxiety and Depression Scale (HADS), the Spielberger Trait Anxiety Inventory (STAI), and the Giessen-Test personality inventory (GT). They have no above-average transpersonal orientation as measured in the Self-Expansiveness Level Form (SELF).

A follow-up study after 12-24 months (mean: 14 months) of continued TR practice showed significant reductions in anxiety and depression, and non-significant reductions on all six Giessen subscales thought to correlate with neurotic symptoms. Transpersonal orientation was reduced even further. Floor effects limited the extent of achievable change due to the low mean initial scores on the symptom-oriented scales. A subgroup of participants with significantly elevated pre-study symptom scores achieved larger reductions with effect sizes between 0.8 and 1.2, comparable to standard psychotherapy methods. The method seems effective on the pre-clinical, preventive level studied. Results of the SELF suggest that transpersonal instruments are not necessarily suited for research into meditative methods based on Buddhism.

Keywords: *buddhism; meditation; outcome; therapy.*

## **Introduction**

The growing body of research leaves little doubt that meditation is effective both in psychotherapy and in somatic medicine (Walsh 1999, Murphy and Donovan 1997, Grawe et al. 1994). Grawe and coworkers (1994) concluded that on the basis of the published literature, meditation is more therapeutically effective than many other more established methods of psychotherapy. But while some body-oriented meditative methods such as

yoga and tai chi have found their way into Western society at least on the level of wellness or personal development, meditation per se is not often an available therapeutic modality for patients.

Among the few meditative methods used in a therapeutic context are yoga, Transcendental Meditation, and several Western methods of unclear merits as a meditation practice in the traditional sense, such as Autogenic Training or Carrington's Clinically Standardized Meditation (see Lehrer and Woolfolk 1993 for overviews). Most recent, successful and certainly best-researched in terms of methodological quality is Kabat-Zinn's Mindfulness-Based Stress Reduction programme (Kabat-Zinn et al. 1992), which consists of Buddhist vipassana meditation with some additions.

The reasons for meditation not being widespread as a therapeutic method are complex. Long-term adherence and motivation present serious challenges. Meditation takes active and sustained effort and most people prefer being cured by passive methods such as drugs or the interventions of a therapist. But the meditative traditions may have to consider that part of this lack of public attractiveness is homemade. Many traditional methods are reluctant to present their practices in a secular, attractive, non-religious, low-threshold way. They doubt whether this is "spiritually correct" and non-misleading, and some Westernized meditation systems seem to support this doubt. But an insistence on high moral principles, obscure historical, cultural and philosophical roots, "higher" states of consciousness and supranormal functioning, or a carefully nursed language barrier will deter "ordinary people" otherwise willing to utilize meditative methods for therapeutic purposes.

The present pilot study investigates the basic effectiveness of a new, low-threshold method in this area on a pre-clinical, preventive level.

Tara Rokpa (TR) is based on Tibetan Buddhist psychology and meditation, supported in part by a Western psychotherapeutic framework and methods. The method was developed by a contemporary Buddhist meditation

teacher, born and trained in Tibet but living in the West for more than 30 years, who has also trained in classical Tibetan medicine, in collaboration with Western psychotherapists. It has been in use for about 15 years. On the psychotherapeutic level, it works with the personal learning history, with emotional and cognitive problems, distortions and irrational beliefs. The approach to the clients/participants is strongly humanistic, the methods are also systemic and cognitive-behavioural. On the meditative side, it works directly with the mind and its functions, on the philosophical background of Mahayana Buddhism, in particular the Yogacara Madhyamaka school (in Tibetan: *shentong*). Offering both aspects in one integrated setting is a particular strength of the method. It also fosters long-term personal relationships with a group of fellow practitioners, a social component that makes the method less ego-centered and more socially orientated than other, more introverted meditation methods.

## **Methods**

### ***Study sample***

In summer 1998, initial questionnaires were collected anonymously from participants of the TR method in Germany. Follow-up questionnaires were called for in the participating local groups starting from summer 1999 over a period of several months. This procedure may have failed to reach some participants, especially those dropped out of the groups. Pre- and post-questionnaires were matched using a self-chosen code number known only to the participants. To safeguard anonymity in the small TR community where basic demographic data may identify individuals, no lists were kept of those handing in questionnaires. In consequence, it was not possible to identify those participants who failed to participate in follow-up and to differentiate those genuinely dropped out of the method.

The study design was naturalistic, participants were following their own natural course of TR practice without changes to the self-motivated, self-organized context of the method. All levels of the method were included into the same sample, the method being assumed to be cumulative, with differential effects of different phases presumably levelling out over long-term observation periods. Self-rating scales were used exclusively, no clinical interviews were performed. The open procedure may have caused a bias such that more participants who were reasonably content with the method were motivated to participate in the follow-up. It was at that time not possible to follow up on drop-outs.

### ***Description of treatment method***

There is as yet no in-depth presentation of the full Tara Rokpa method in a scientific framework. Akong Rinpoche (1994) and Irwin (1997), written for the general public, give an introduction to the basic principles and part of the practical exercises. TR is structured into consecutive levels or phases of 6-30 months duration each (Table 1). Participants do not become members of a central organization, but form individual self-organized, self-responsible local groups. They typically practise a range of exercises including relaxation, visualization and meditation for a recommended time of 3 hours per week as a minimum, ideally daily. They meet weekly or bi-weekly in privately organized groups of about 2-8 other participants on the same level. Free painting and other free art-work is part of the method. During many group meetings, mutual simple massage is practiced for relaxation. Three times a year, weekend seminars lead by qualified TR therapists introduce new material and offer a chance for private interviews with the therapists. These seminars follow a semi-fixed curriculum where the subject matter is usually adapted to the actual progress of the group. The full curriculum covers a period of at least 6 years. After this,

individuals may go on practicing the exercises learned, or move on to more classic Buddhist meditation.

| Level<br>(sample size in follow-up) | Stage                                       | Duration   | Focus   | Methods   |
|-------------------------------------|---|------------|---|---|
| 1<br>(n=9)                          | <i>Learning To Relax/Healing Relaxation</i> | 3-6 months | Relaxation  | Relaxation exercises, massage, physical exercises                                     |
| 2<br>(n=14)                         | <i>Back To Beginnings</i>                   | 2-3 years  | Remembering, working through  | As above, plus free painting, writing, visualization exercises                        |
|                                     | <i>Taming the Tiger</i>                     | 1 year     | Recognition of mental patterns and defense mechanisms, cognitive change | As above, plus imaginative and visualization exercises                                |
|                                     | <i>Six Lights</i>                           | 6 months   | Working with emotions   | Visualization, sound  |
| 3<br>(n=8)                          | <i>Six Realms</i>                           | 6 months   | Reality orientation, causes and relief of suffering                     | As above, plus cognitive clarification  |
|                                     | <i>Compassion/Mind Training</i>             | > 1 year   | Engendering compassion for oneself and others                           | Cognitive and visualization exercises, behavioural and cognitive change in daily life |

**Table 1** Stages of Tara Rokpa practice. Levels refer to subdivisions used in the present study.

### ***Study instruments***

Anxiety and depression, the most common psychiatric symptoms and basic indicators of psychosocial distress, were studied with the Hospital Anxiety and Depression Scale (HADS, German version: Herrmann et al. 1995) and the trait scale of the Spielberger State/Trait Anxiety Inventory (STAI, German version: Laux et al. 1981). As a personality inventory, the German-language Giessen Test was used (Beckmann et al. 1991). An assessment instrument from transpersonal psychology, the Self-Expansiveness Level Form (SELF, Friedman 1983, Friedman and MacDonald 1997) was included. It attempts to determine where the individual feels her/his boundaries between self and not-self to be, both on a transpersonal and a personal level (Friedman 1983). This was thought to be a useful addition because of the importance of no-self in Buddhism. As there is no validated

German version of the SELF, a translation prepared by the author was used. Thus the English and German versions may not be fully equivalent. Statistics were generally limited to simple t-tests, as the purpose of the study was exploratory. Pre-post group differences were calculated using t-tests for dependent samples. Effect sizes for dependent groups (repeated measures) were computed from the original standard deviations, as follows:  $d = (\text{mean of pre test scores} - \text{mean of post test scores}) / \text{standard deviation of pre test scores}$ . Pre-post differences on the individual level were tested for significant change with the methods given by Jacobson and Truax (1991) as quoted in Fisher and Durham (1999).

## **Results**

### ***Summary of results***

One year of TR practice significantly reduces anxiety and depression. In those participants who had significantly raised scores of anxiety and depression initially, the reduction showed effect sizes comparable to standard psychotherapy methods. In the Giessen personality inventory, post-treatment scores were closer to normal control samples on all six subscales. TR participants had no above-average transpersonal orientation in the SELF initially and even less after a year of practice. Identification with a personal level of self seems lower on the higher levels of TR.

### ***Basic and demographic data***

74 initial questionnaires and 31 post-treatment questionnaires were evaluable. Some lacked one or two of the subscales but remained evaluable in the others. Participants were mostly female (82%), the mean age was 43 years (range 25-65 years). Two thirds of the participants had experience with psychotherapy, almost half have had more than 3 years of psychotherapy, the mean duration of prior psychotherapy being 5 years.

Even more extensive was the prior experience with meditation and/or Buddhism in general. Only 18% had no prior meditation experience at all, whereas more than half have had more than 3 years of meditation (mean 6.4 years). 24 participants had experience in meditation but not psychotherapy, and only 7 had experience in psychotherapy but none in meditation. Only 11 participants (15%) had no experience in either.

74% of the participants had practiced TR for less than 3 years, 25% for more than three up to eight years. There were no significant differences in the basic and demographic variables between female and male participants.

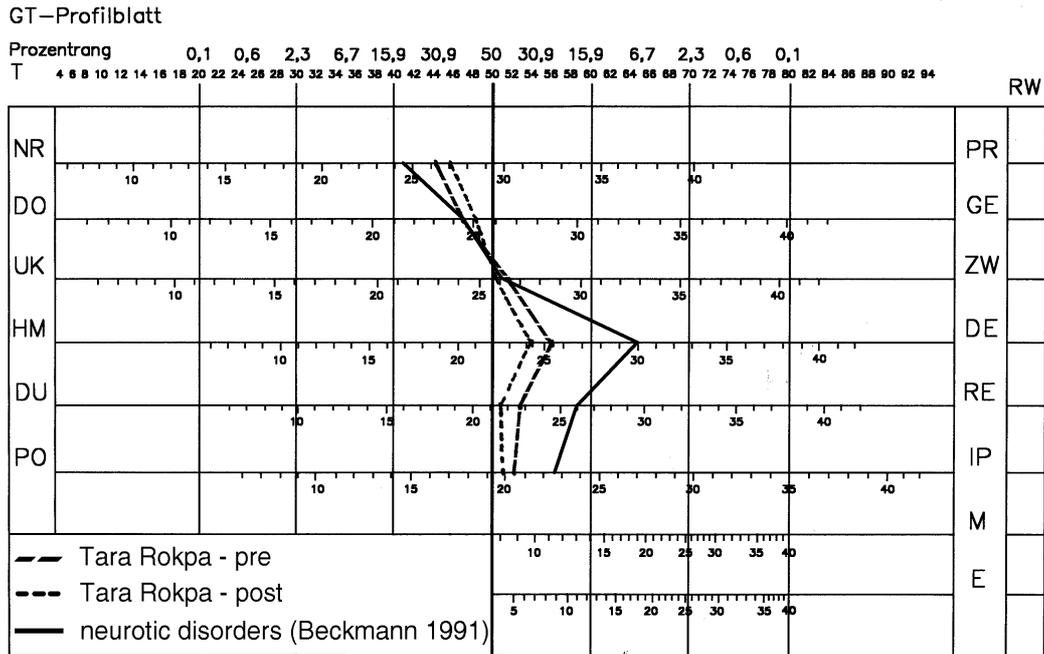
### ***Results of psychometric scales (initial questionnaire)***

#### **Anxiety and depression**

Both anxiety and depression scores in the present sample were slightly, but significantly higher compared to normal controls, but much lower than in groups with diagnosed psychological or psychiatric disorders. When the HADS was used to screen for individuals with possible clinical disorders, 15,8% of our sample were possibly suffering from an anxiety disorder and 11% possibly from a depressive disorder in the clinical sense. In normal German populations, the HADS identifies about 10% as possibly suffering from a depressive and/or anxiety disorder (using cut-off scores of  $\geq 11$  for HADS anxiety and  $\geq 9$  for HADS depression, see Herrmann et al. 1995).

#### **Giessen Test personality inventory**

Tara Rokpa participants are slightly but significantly more depressed, have lower perceived social resonance, less control, and a higher tendency to be domineering than the control sample (Fig. 1). The profile of a group of patients with neurotic disorders published by Beckmann et al. (1991) resembles the TR participants' profile, but shows more pronounced differences to the norm. TR participants are also closer to normal scores than to those of other patient groups as reported by Beckmann et al. (1991).



**Fig. 1** Giessen Test profile of TR participants, pre- (n=71) and post-treatment (n=30). Shown for comparison: 235 patients with "different neurotic disorders" (Beckmann et al. 1991).

The vertical centre line (T=50) corresponds to the normal scores of the standardization sample. The six subscales are: NR/PR: negative/positive *social resonance* (feeling un/liked and un/likeable), DO/GE: *dominance* (domineering/submissive), UK/ZW: *control* (undercontrolled/ compulsive), HM/DE: *mood* (hypomanic/depressed), DU/RE: *permeability* (open/retentive), PO/IP: *social potency* (un/active and un/effective in social contexts).

### Self-Expansiveness Level Form: transpersonal and personal factors

On the *transpersonal* scale, TR participants were much closer to a control sample of American students than to a Yoga group and a group of members of the Association for Transpersonal Psychology (Friedman 1983). On the *personal* scale, thought to correlate with mental health in the conventional sense, our sample scored higher than the student control group and the ATP members group and slightly lower than the Yoga group (see Table 2).

|        | TR (n=69)     | students      | Yoga group    | ATP members   |
|--------|---------------|---------------|---------------|---------------|
| SELF-T | 14.5 (SD 5.0) | 15.1 (SD 3.6) | 18.2 (SD 3.2) | 18.0 (SD 4.9) |
| SELF-P | 21.2 (SD 2.7) | 20.2 (SD 3.7) | 22.4 (SD 2.9) | 20.5 (SD 4.2) |

**Table 2** SELF scores of initial TR group (n=69) in comparison with other samples given in Friedman (1983). SELF-T: transpersonal scale, SELF-P: personal scale

## ***Results of follow-up study***

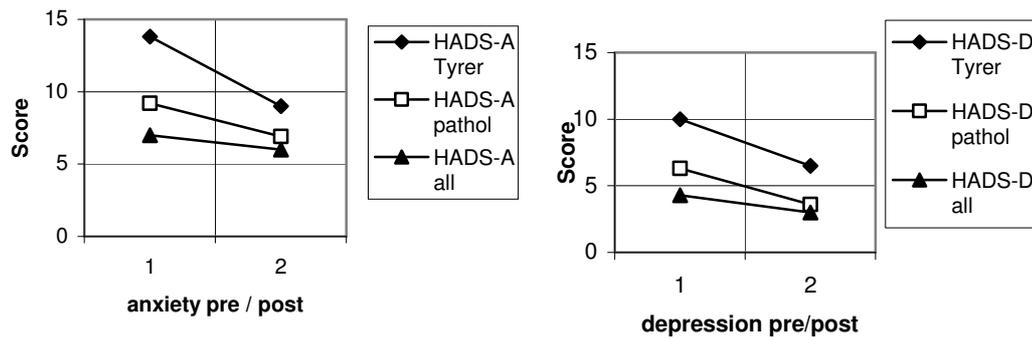
### **Basic and demographic data**

31 participants followed the call for a follow-up questionnaire, after a Tara Rokpa practice period ranging from 9-26 months. The 31 participants of the follow-up study did not differ significantly in their basic and demographic characteristics from the initial full sample. 26 were female, 5 male. The ages ranged from 26-56 years (mean 40.8 years). They had taken part in TR for a mean study period of 14.4 months (range 9 -26 months, mostly 12 months). 29% of the participants in the follow-up study were beginners. 12 participants (38.7%) were in present psychotherapy during the study period, and about half (16 of 31) practiced other forms of meditation or Buddhist practice during that time. This makes it difficult to distinguish the effects of the researched method.

The mean subjective rating of benefit was 3.19 on a 1-4 Likert scale where 3 corresponds to "a lot of benefit" and 4 to "very much benefit". The subjective rating of benefit was not correlated with the extent of improvement on any of the the psychometric scales. There is one exception to this: Giessen subscale 2. Becoming less domineering, more cooperative, was positively correlated with the subjective sense of benefit (Spearman's rho 0.395,  $p=0.03$ ). There were no significant correlations between self-rated intensity of practice and any of the other outcome variables.

### **Anxiety and depression**

After 14 months of TR practice, participants had significantly reduced anxiety scores as measured both in STAI trait anxiety ( $p=0.007$ ) and HADS anxiety ( $p=0.041$ ). Depression was significantly reduced in the HADS ( $p=0.014$ ). The reduction in global HADS scores ( $p=0.006$ ) is numerically fairly large, from 11.29 to 9.09. Such a change would appear to be clinically relevant.



**Fig. 2** Outcome of TR practice on the **HADS** sub-scales **anxiety** (left) and **depression** (right) for *all* participants (n=31) and for the subgroup with *pathological* pre-treatment scores (n=18). Shown for comparison: *Tyrer et al. (1988)*, outcome of the Nottingham study of neurotic disorder.

While statistically significant, effect sizes were relatively small, the largest effect size being 0.43 for HADS depression (Table 3). This is suspected to be a floor effect due to the large proportion of participants who were within the normal range already at pre-treatment, thus leaving less margin for improvement than in patient samples with higher initial scores.

To test this hypothesis, STAI and HADS pre/post comparisons were performed separately on the smaller subgroup of patients who had pathological scores at pre-test (Table 4). To identify significantly raised pathological scores, Jacobson's cut-off criterion *c* was used (Jacobson and Truax 1991, Fisher and Durham 1999). In this pathological subgroup, effect sizes were much larger: 0.82 for STAI anxiety, 0.99 for HADS anxiety and 1.23 for HADS depression.

|          | Mean pre | Mean post | SD pre | SD post | Level of significance | Effect size |
|----------|----------|-----------|--------|---------|-----------------------|-------------|
| HADS A   | 7.03     | 6.06      | 3.19   | 2.54    | 0.041                 | 0.30        |
| HADS D   | 4.26     | 3.03      | 2.86   | 2.05    | 0.014                 | 0.43        |
| HADS sum | 11.29    | 9.09      | 5.33   | 3.91    | 0.006                 | 0.41        |
| STAI     | 41.22    | 38.71     | 7.07   | 6.70    | 0.007                 | 0.36        |
| SELF-T   | 13.62    | 12.17     | 5.48   | 5.63    | 0.036                 | 0.26        |
| SELF-P   | 21.31    | 21.51     | 2.42   | 3.22    | 0.749                 | 0.08        |
| G1       | 26.23    | 27.03     | 4.45   | 5.18    | 0.279                 | 0.18        |
| G2       | 24.56    | 25.40     | 4.95   | 5.73    | 0.154                 | 0.17        |
| G3       | 26.43    | 26.16     | 4.40   | 4.20    | 0.617                 | 0.06        |
| G4       | 25.30    | 24.23     | 5.43   | 5.52    | 0.108                 | 0.20        |
| G5       | 22.93    | 21.63     | 6.23   | 6.21    | 0.086                 | 0.21        |
| G6       | 20.40    | 19.96     | 4.26   | 4.52    | 0.483                 | 0.17        |

**Table 3** Outcome of 1-year TR practice on all psychometric scales (n=31)

|               | Mean pre | Mean post | SD pre | SD post | Level of significance | Effect size |
|---------------|----------|-----------|--------|---------|-----------------------|-------------|
| HADS A (n=18) | 9.16     | 6.94      | 2.22   | 2.55    | <0.001                | 0.99        |
| HADS D (n=17) | 6.29     | 3.64      | 2.14   | 2.14    | 0.001                 | 1.23        |
| STAI (n=19)   | 45.47    | 41.47     | 4.92   | 6.58    | 0.001                 | 0.82        |

**Table 4** Outcome of TR practice for participants with pathological pre-treatment scores (anxiety and depression)

Abbreviations: HADS sum = HADS global score, HADS A = HADS anxiety subscale, HADS D = HADS depression subscale, ST = STAI trait scale, SELF-T = SELF transpersonal scale, SELF-P = SELF personal scale, G1 - G6 = Giessen test subscales.

Level of significance: t-test for dependent samples. Effect size  $d = (\text{mean of pre test scores} - \text{mean of post test scores}) / \text{standard deviation of pre test scores}$

### Giessen personality inventory

The changes on the six Giessen subscales (Fig. 1) are not statistically significant in this small sample. This is difficult to evaluate because the items are bipolar. Examination of the raw data of the Giessen subscales indeed shows large changes in both directions on all six subscales in the individual participants, suggesting that individually meaningful effects may cancel each other out in the means. Despite this, all mean pre-post changes on the six subscales are in the direction of the central normal scores. Highest effect sizes (see Table 3) were shown by subscales 5, *permeability* (becoming more open and trustful towards others) and 4, *mood* (becoming less depressed).

### **Self-Expansiveness Level Form**

As reported already, the pre-treatment scores on the *transpersonal* scale of the SELF were low compared to populations with supposedly transpersonal orientation (Table 2). During the study period, transpersonal scores decreased even further ( $p=0.036$ , t-test for dependent samples). There was no significant difference on the SELF *personal* scale between pre- and post treatment scores in general. The post-treatment score on the personal subscale was however highly correlated with the stage of TR work (ANOVA  $p=0.009$ , Kruskal-Wallis  $p=0.012$ ), with personal identification decreasing on level 3. This would fit well with the underlying Buddhist philosophy of the TR method and its stated aim of reducing over-involvement with personal concerns. However, examination of the raw data suggests that this effect may be an artifact of the small sample size, as two of eight participants contributed the bulk of the mean reduction.

### **Clinically meaningful individual change**

Group statistics of mean scores show whether a method has statistically significant effects beyond a random effect. But they say little about the clinical relevance of such changes and they may hide relevant data. The number of individuals who get worse instead of better is often omitted from reports. To determine meaningful individual change, the methodology proposed by Jacobson and colleagues (Jacobson and Truax 1991) was used, which is increasingly accepted in psychotherapy outcome research and has been previously used in analyzing STAI-T outcome studies (Fisher and Durham 1999). It was applied to the HADS and STAI scores. The SELF was not included into the determination of global meaningful change as its clinical relevance is unclear. A floor effect was assumed if the individual was within the non-pathological range both at pre- and post-test in all 3 measures STAI-T, HADS-D and HADS-A.

The bipolar scales of the Giessen test did not lend themselves to the Jacobson procedure. Instead, the guidelines of the test manual (Beckmann et al. 1991) were followed. An individual pre/post difference of 5 score points on at least two subscales was considered a meaningful change if the scores were outside or at the fringe of the normal range initially ( $T < 40$  or  $T > 60$ ) (Beckmann et al. 1991). A change was considered therapeutically negative if the change was on the same side of the scale and increased in distance from the center ( $T = 50$ ) by 5 points or more.

Difficulties with interpretation in this sample arose mainly for the subscale DO/SM (domineering/submissive). In several cases an increase in SM (cooperation/submissiveness) beyond  $T = 60$  seemed to contradict other undoubtedly positive changes. However this particular Giessen test factor, dominance, or rather "being domineering", is typically elevated in neurotic patients and should not be taken to represent healthy self-assertiveness (Beckmann et al. 1991). On the other hand, flexibility and cooperation are seen as positive qualities in the TR method. Therefore an increase towards the "submissive", or flexible, side, even slightly outside the normal range, may not signal a therapeutically negative development in this particular sample.

The described procedure overall yielded 15 reliable positive changes (48%) and 2 negative changes (6%). 14 individuals are unchanged, of which at least 4 showed a floor effect, allowing no assessment of change with the instruments used. Meaningful global change, for the better or worse, showed a significant negative correlation with the stage of TR practice (Spearman's  $\rho = -.45$ ,  $p = 0.011$ ) and the time spent in TR before the study (Spearman's  $\rho = -.44$ ,  $p = 0.013$ ), showing that change on symptom-oriented scales happened mostly on the earlier stages, less after many years of TRT. The two participants assessed as change to the worse in this procedure both have long prior experience with psychotherapy (20 and 15 years) and meditation (10 and 17 years), both continued with other meditation practice

during the study period, and one continued to be in other psychotherapy during the study. Whether the TR practice caused the assumed changes to the worse is therefore doubtful.

### **Influence of concurrent meditation and psychotherapy**

As mentioned earlier, a high proportion of the sample has been involved in other psychotherapies or meditation practice during the study period, obviously a confounding influence. However, neither the extent of change nor the absolute post-treatment scores of any of the outcome variables show significant differences between the participants with or without concurrent meditation or psychotherapy. The one exception was that concurrent meditators rated their subjective benefit from TR lower than non-meditators (t-test,  $p=0.007$ ).

### **Voluntary participation in follow-up**

It seemed possible that participants who followed the invitation to take part in the follow-up are different from those who did not. However, the two groups were identical in all psychometric variables at pre-treatment, with one exception: those who participated in the follow-up ( $n=31$ ) were significantly more compulsive-obsessive (Giessen subscale 3) than those who did not bother to do so ( $n=43$ , Mann-Whitney U-test,  $p=0.029$ ) - not a real surprise perhaps, but a confirmation of the real-world validity of this Giessen subscale construct. Unfortunately, it was not possible to differentiate between those who stopped TR practice entirely and those who simply failed to participate in follow-up.

### **Single item analysis**

In researching a new method, the choice of instruments is a relevant question. There may be a trade-off between comparability with other

research and best fit for the method under consideration. To gain some understanding what type of questions might be chosen in the future to examine changes typical to the TR method, all single scale items of the present study (91 items) have been assessed individually for extent of change during the study period. Most prominent are items showing a reduction in avoidance behaviour (items 1, 3, 7). Other items report reductions in jealousy (2), anxiety (5), useless rumination (2, 6), and an increase in humour (8). All seem compatible with the stated aims of the method (Akong 1994). Interestingly, the sense of self is increasingly shifted to actual physical sensations (4).

|   | Item text (item source)   | Mean pre | Mean post | Sign. Level |
|---|---|----------|-----------|-------------|
| 1 | I try to avoid facing a crisis or difficulty (STAI_14)  | 1.90     | 1.54      | 0.001       |
| 2 | I wish I could be as happy as others seem to be (STAI_4)  | 1.45     | 1.19      | 0.003       |
| 3 | I have the impression that I show very little of my needs for love (Giessen_11)   | 4.63     | 4.16      | 0.008       |
| 4 | I am very willing use sensations from part of my body, such as my heart, that I experience, to describe my sense of self or identity (SELF_7) | 3.68     | 4.24      | 0.009       |
| 5 | I get a sort of frightened feeling like 'butterflies' in the stomach (HADS_9)   | 0.96     | 0.74      | 0.017       |
| 6 | I take disappointments so keenly that I can't put them out of my mind (STAI_18)   | 1.80     | 1.51      | 0.017       |
| 7 | I believe that I avoid companionship (Giessen_2)  | 4.13     | 3.46      | 0.023       |
| 8 | I can laugh and see the funny side of things not so much now (HADS_4)   | 0.35     | 0.09      | 0.030       |

**Table 5** Individual scale items with the most significant change during the study period. Significance levels are given for comparison, no actual statistical significance is being implied.

## Discussion

### *Effectivity*

The results show that TR is a therapeutically effective method in basic parameters such as anxiety and depression. In this it is comparable to other meditative methods (overviews in Murphy and Donovan 1997, Goleman 1988). Relatively small overall effect sizes seem to result from almost

normal initial mean scores. When calculated separately for those who initially had elevated scores, effect sizes between 0.82 and 1.23 result. This is well in the range of other psychotherapy methods. Large meta-analyses consistently find effect sizes of 0.8-1.0 (Grawe et al. 1994, Lipsey and Wilson 1993), and up to 1.82 for some cognitive/behavioural methods (Grawe et al. 1994). Meditation studies with good methodology, such as Kabat-Zinn et al. (1992) with anxiety disorder patients, show effect sizes from 0.59 for depression up to 0.87 for anxiety.

Also the proportion of individuals with meaningful positive change (48.4%) is comparable to clinical outcome studies that use this statistical method. For example, in studies re-analysed by Fisher and Durham (1999), 27% patients achieved clinically significant change at 1-year follow-up after non-directive therapy, 38% after applied relaxation and 58% after cognitive-behavioural therapy. However, these were patient samples and therefore not fully comparable to the present sample.

Besides the lack of a control group, the small sample size was a limiting factor in this study. It did not allow subgrouping to compute effects of different phases or interventions within TR separately. In retrospect, the decision to adopt a completely anonymous procedure seems problematic. It resulted in a failure to contact those who dropped out of the practice groups and a low return rate in follow-up. This makes it difficult to generalize the results to all TR practitioners. It is possible that those who did not participate in the follow-up were participants with less benefit, at least subjectively. However, self-selection and individual choice of cooperation are a characteristic of the method as it is currently practiced in the field. A sample chosen through a selection procedure within a study protocol is not currently available and will have to be studied in later research.

### ***Choice of research instruments in Buddhist-based practice***

One purpose of this pilot study was, to evaluate instruments for their usefulness in further research into this method. It appears that *anxiety*, despite or because of the ubiquity of the concept and the feeling, is a useful concept for further research. Anxiety plays a role in almost all emotional disorders and has been called "the motor of neurosis". This fits well with the Buddhist conception that anxiety is a symptom of ego-oriented thinking (De Silva 2000) and fearlessness a sign of achievement on the Buddhist path. Another trait that seem worth studying is the reduction in avoidance behaviour, as suggested by the individual items analysis.

Less promising is the Self-Expansiveness Level Form (Friedman 1983, Friedman and MacDonald 1997). Results with the SELF in this study show a low transpersonal orientation in the initial TR sample, a further reduction of transpersonal orientation during the study period, and possibly a reduction of personal identification/orientation in the higher stages of TR. Friedman and MacDonald (1997) state that low scores on both subscales as the mark of a neurotic person. But they go on to say that in some cases low scores could be found in "those who disidentify as their transpersonal style, and they would be more similar to those who are high on both dimensions". This seems to make interpretation of changes in terms of therapeutic improvement difficult, even arbitrary.

Constructing scales to measure positive progress in areas beyond conventional mental health is a difficult proposition. Even the currently widespread conceptualization of prepersonal - personal - transpersonal stages seems questionable in a Buddhist framework. Scales such as the SELF check for the presence of certain cognitions, values, and belief systems, no more and no less. These are coloured by cultural and individual factors and do not necessarily measure progress on a meditative path.

## **Future research directions**

These results show that Tara Rokpa is potentially a therapeutically active method. The results of the present work need to be replicated in larger, more homogenous samples, and with a controlled study design including follow-up on drop-out participants. An open question remains the choice of instruments for assessment and evaluation.

While straightforward and generally recognized measures of psychological suffering seem useful at least for initial stages, instruments resting on particular definitions of "transpersonal" or "spiritual" progress can be problematic. Western transpersonal scales seem overly concerned with special experiences and personal attitudes, less with the practical maturational qualities Buddhists would use as a gauge of achievement. Staying patient and kind under adverse circumstances would convince a Buddhist teacher more of the progress of a student than a professed identification with limitless space and time, or special experiences in meditation which are generally seen as irrelevant by Buddhist teachers. Ideal measures would be factors of experience that are considered an improvement both in Western conventional psychotherapy and in a meditative, or Buddhist, framework. In the present study, anxiety reduction was clearly one such factor. De Silva (2000) and Goleman (1988) mention as other positive concepts of mental health in Buddhist or meditative psychology: reality orientation, changed attitude towards the self, increased self-knowledge and self-awareness, voluntary control and autonomy, ability to form sensitive and satisfying relationships with others, body-mind integration, lessening of tension. Negative factors in Buddhist models of mental health are, for instance, ill-will and restlessness and worry (De Silva 2000). Most of these correspond to Western concepts of mental health, and are inside the range of what can be studied with Western clinical instruments.

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