

Effects of Neuro-Linguistic Psychotherapy on psychological difficulties and perceived quality of life

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Abstract

Aims: The purpose of this study was to examine the effects of Neuro-Linguistic Psychotherapy on psychological difficulties and perceived quality of life of clients who came for psychotherapy during free practice. **Method:** A total of 106 psychotherapy clients were randomly assigned to a therapy group or a control group. The outcome was assessed by the Structured Clinical Interview for DSM-IV Personality Disorders (SCID II) with respect to clinical symptoms and by the Croatian Scale of Quality of Life (KVZ) with respect to Quality of Life. The therapy group received the measures at pre-, post- and five-months follow-up occasions, whereas the control group received them initially and after a period of three months. **Results:** In the therapy group, as compared to the control group, there was a significant decrease of clinical symptoms and increase in the quality of life. With respect to clinical symptoms, effect sizes were 0.65 at post-measurement and 1.09 at follow-up, indicating a substantial reduction of symptom strain, which is comparable to the well established effects of Cognitive Behavior Therapy. We also found a significant increase in perceived quality of life after therapy, as compared to the wait-list control group, with effect sizes between 0.51 and 0.73. Therapeutic improvements were still present five months after the end of therapy, showing further development in the same direction. **Conclusions:** Neuro-linguistic psychotherapy is an efficient intervention, which is on a par with other, well-established psychotherapeutic techniques.

Keywords: neuro-linguistic psychotherapy; evaluation; quality of life; psychological difficulties

Introduction

Neuro-Linguistic Programming (NLP) was founded at the beginning of the 1970s as a method for effective communication and modelling by the linguist John Grinder and student of mathematics Richard Bandler. Bandler and Grinder modelled the cognitive and behavioural patterns of the famous therapists Milton Erickson, Virginia Satir and Fritz Pearls, and based on those investigations formulated the principal ideas of NLP. In their book *Frogs into Princes* the authors state: 'We call ourselves modelers. What we essentially do is pay very little attention to what people say and a great deal of attention to what they do. And then we build ourselves a model of what they do ... We have no idea about the real nature of things ... The function

of modeling is to arrive at things which are useful' (Bandler & Grinder, 1979, p. 7).

In the field of psychotherapy, in the 1980s, the therapeutic use of NLP developed into Neuro-Linguistic Psychotherapy (NLPt), a unique school of psychotherapy, drawing on the principles and techniques of NLP. To avoid possible confusion, it could be said that NLPt is a specialised application of NLP in the field of psychotherapy. NLPt encompasses NLP principles and techniques, both in training and application, and has further added a theoretical basis – a model of human functioning and development and other inherent structures which are necessary for a method to be regarded as psychotherapy.

While NLP has remained a somewhat eclectic field, NLPt has developed a standard curriculum for education (see www.eanlpt.org), and a professional

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code of ethics based on the Code of Ethics of the European Association for Psychotherapy. As this study is researching effects within the context of psychotherapy, we will be using the term NLPt, emphasising at this point once again that most of the basic principles and techniques are to be found in NLP also. As a psychotherapy method, NLPt is based primarily on neurobiological, phenomenologically-systemic and metatheoretical considerations. It can also be defined as a systemic imaginative method of psychotherapy with an integrative cognitive approach (Schütz et al., 2001).

A central tenet of NLPt is goal-orientated work with a person, paying particular regard to his or her representation systems, metaphors and relation matrices. Psychotherapy is regarded as a co-operative, creative process where the therapist assists the client in making desired changes in life, reaching ecologically acceptable goals. Subjective good intentions underlying symptoms of physical and/or psychological dysfunctions are acknowledged, and by that the mostly unconscious conflicts and impasses are brought to the surface for the client to examine and to look for the subjectively best way of establishing and maintaining his or her overall psychological and physical well-being (Schütz et al., 2001, p. 25).

The Austrian school of NLPt developed a specific model of goal-oriented work introduced by Schütz (1996) at the World Congress for Psychotherapy in Vienna.

As in most therapies, in NLPt there is a strong emphasis on the quality of relationship between therapist and client. The therapeutic process can develop well only on the basis of a solid relationship created out of mutual respect and a well-established rapport. The role of the NLPt-therapist is to accompany the client, and support him or her in defining goals, activating resources and making changes in different areas of relevance. The changes need to be in harmony with the capabilities, beliefs and values, as well as overall criteria of the client, with respect to the overall ecology of the system.

NLPt encompasses a number of techniques that can be very efficient in different stages of the therapeutic process, and also as tools the client can later use in his or her everyday life. After each therapy session, the so-called 'future-pace' is done with the intention of transferring the cognitive and emotional representations that were developed in the session to everyday life, thus increasing the probability of reaching the goal (Cameron-Bandler,

Gordon, & Lebeau, 1988, based on Vaihinger, 1911/1924).

Research on NLPt can be summarised under two perspectives: research that considers the general claims of NLPt; research that considers the effectiveness of practicing NLPt in clinical settings. Numerous studies deal with the general claims of NLP, e.g. eye movement patterns (Bliemeister, 1987; Dooley & Farmer, 1988; Wertheim & Habib, 1986), representational systems (Mattar, 1980; Schiermann & Ringelband, 1985), or further basic aspects (Konefal, Duncan, & Reese, 1990; Einspruch & Forman, 1988; Reckert, 1994; Weerth, 1992), and while some of those studies could to a greater extent confirm the hypotheses on validity of NLP concepts, other studies did not find evidence for the basic assumptions.

In a review of the experiential literature Sharpley (1984) drew the conclusion that the effectiveness of NLP therapy was yet to be demonstrated. In their comment on that review, Einspruch and Forman (1985) made an evaluation of design and methodological errors in empiric studies of NLP, also offering suggestions for improving the quality of research on NLP. Sharpley (1987) added further data from seven research studies demonstrating that the research data do not support either the basic tenets of NLP or their application in counselling situations, once again repeating the dilemma whether the lack of evidence for NLP claims and effects reflects the faulty premises of NLP or the methodological shortcomings of the studies.

Until now only a few publications dealing with the effectiveness of NLPt in real-life counseling or psychotherapeutic contexts can be found. Genser-Medlitsch and Schütz (1997) compared 55 clients of NLPt and 60 wait-list controls by questionnaires concerning individual complaints, clinical symptoms, coping strategies and locus of control. Ratings of clients and therapists concerning the perceived success of treatment were also included. Improvements in the therapy group were significantly superior to those in the control group, and most of the therapy effects remained stable in the six-month follow-up. NLPt effectiveness was significantly influenced by the treatments' duration and by the clients' age and gender.

The Tampere NLP-study, conducted by Ojanen (1996–2002), studied 50 women and 12 men, mostly with depression, anxiety or interpersonal problems. The mean number of sessions was eight (range: 2–20) and pre-, post-, six-months and 1.5 to

2 years follow-up measurements took place. Subjective Well Being (SWB) and cognitive variables were measured by visual analogue and Likert scales. Anxiety, mood, self-esteem, and various other SWB variables improved significantly, with even larger changes in CV measures.

A study of the effectiveness of NLPt by Huflejt-Lukasik (in preparation) examined the effects of neuro-linguistic psychotherapy on self-focused attention of the patients. Indicators of the effectiveness of the psychotherapy were: decreasing psychopathological symptoms and better strategies of dealing with stress. The level of self-focused attention was measured as an indicator of adaptive self-regulation, as high, long-term self-focused attention is considered a sign of difficulties in self-regulation.

The results indicate that NLPt is an effective method in reaching positive change. During therapy there was a permanent decrease in patients' psychopathological symptoms and emotion-orientation in dealing with stress. The level of self-focused attention also decreased.

The 'study of effects of mental allergy therapy' within the Hildesheimer Health Training®, which is based on NLPt, was conducted by Witt (1999) and showed that NLPt can modulate the skin reaction to histamine in pollen-allergic humans and improve their state of health.

In this study, the goal was to examine the effects of NLPt in private psychotherapeutic practice. Most of the participants were seeking psychotherapy, either because they wanted to reduce clinical symptoms or because they desired to achieve a higher quality of life (i.e. be happier or more successful, etc.). Thus, clinical symptoms and quality of life seemed to be the most appropriate targets for NLPt evaluation.

Method

Goal and objectives of study

The goal of the study was to evaluate the effects of individual NLPt carried out in a free practice. The aim was to examine short-term as well as long-term effects of NLPt on a number of psychological difficulties and perceived quality of life.

The following research questions were therefore developed:

1. What are the short- and long-term effects of NLPt on clinical symptoms?
2. What are the short- and long-term effects of NLPt on perceived quality of life?

Therapy and control-group

Participants were assigned to a therapy or to a control group (every second participant that called regarding therapy was assigned to the control group). The therapy group received the assessments prior to and immediately after therapy, as well as at a five-month follow-up session. The members of the control group were assessed at pre-test, simultaneously with the therapy group and three months later. Before the initial assessment, participants in the control group were informed about having to wait three months before starting therapy, and that after those three months they would be tested on one more occasion. Following their second test, participants of the control group were not further tested for effects of their therapy process or in any other way included in the study. The comparison between the therapy and control group refers to the immediate effects after therapy, while the follow-up questions are answered based on within-therapy group measurements.

Although the 'wait-list' control group is quite often used in psychotherapy, it is not unproblematic. One of the questions discussed were the possible effects of having to wait for therapy on the motivation of clients – some authors warn of the danger of 'reactive demoralization', a worsening of condition because the control group participants know others are getting a treatment and they are not (Parker, 1985). Many recent studies restrict themselves to the comparison of active treatments as evidence has accumulated for the general efficacy of therapy and ethical committees have become increasingly unwilling to support trials that could be seen to deprive patients of help (e.g. Elkin, 1994).

It was decided to undertake a wait-list control group study given the prevalent attitudes in the Croatian (Milas, 2005) and Austrian (Grawe, Donati & Bernauer, 2001) psychological community, that control group study-designs are necessary for a study to be considered scientifically acceptable.

Therapy setting

The effects of NLPt were tested during individual therapy sessions. Sessions took place weekly and lasted for 60 minutes. The total duration of the therapies differed with respect to the individual needs of each client. The average number of sessions was 20 (range: 5–65, with 89% of participants within the range 10–40).

Ethics considerations

The ethical approval for the study was granted by the executive committee of the European Association for NLPt, which is the platform of national NLPt organizations, NLPt training institutes and neuro-linguistic psychotherapists, integrating and representing NLPt in Europe. As EANLPt is an accepted psychotherapeutic modality organisation (EWAO) within the European Association for Psychotherapy (EAP), it has accepted and applies the ethical principles of the EAP.

The principles which received special attention were:

- Prior to obtaining informed consent, the participants were informed of all aspects of research, in particular: information about the testing procedures – how many times the testing will be repeated, how long it took, who undertook testing, which instruments were used. For participants in the control group information that they were on the waiting list, and would be re-tested after three months.
- The right to withdraw at any stage.
- The needs of the individual as paramount over the research process.
- Information provided to participants about the wider findings, and individual results.
- Strategies for minimising harm.
- Participant confidentiality.

Participants

Participants were recruited by word of mouth, during lectures and through written information they found on the internet or in brochures. A total of 106 people, 22 males and 84 females participated.

Measures

It was decided not to focus on specific areas of symptomatology, but to use a symptom total as an indicator of subjective stress (similar to using the PST – number of self-reported symptoms – in SCL-90-R, cf. Franke, 1995).

Measures of clinical symptoms and of quality of life were utilised. Initially, the Structured Clinical Interview for DSM-IV (SCID I) as well as the Structured Clinical Interview for DSM-IV Personality Disorders (SCID II) were used, which cover a wide range of psychopathology according to DSM-IV-TR (Saß et al., 2003) (*Diagnostic and Statistical*

Manual of Mental Disorders). SCID I includes the Diagnostic Criteria of the Axis 1 disorders which are most commonly seen by clinicians, such as psychotic disorders, mood disorders, anxiety, substance abuse and other disorders.

The participants in this study did not have mental disorders that passed the threshold to be diagnosed as clinical disorders according to SCID I and thus. SCID I was used solely for diagnostic reasons at the beginning of therapy and was not considered further in the course of the study. SCID II covers 11 DSM-IV Personality Disorders (plus appendix categories). The result of the SCID II personality questionnaire, which contains 118 questions, was used as an overall measure of the number of clinical symptoms, for the purpose of this study named 'psychological difficulties'.

As a measure of quality of life, the Croatian Scale of Quality of Life (KVZ) (Krizmanic & Kolesaric, 1992) was used. Krizmanic and Kolesaric (1992) defined quality of life as a complex, synthetic experience of satisfaction/dissatisfaction with life, based on a more or less constant evaluation and re-evaluation of life and experiences in different areas, such as job, social activities, interpersonal relationships, emotional relationships (p. 6).

The scale consists of 20 to 23 items (different forms depending on age group) assessing the construct 'quality of life' in different areas. Items 14 to 17 are defined as predictor variables, describing different aspects which might be perceived as causes of satisfaction/dissatisfaction in life. Six other items are defined as criterion variables, measuring overall perception of quality of life. The instrument was designed for assessing how a person perceives her/his quality of life and for measuring progress in therapy.

Procedure and treatment

In the course of this research, psychotherapy was offered at a reduced rate in order to make therapy accessible to more clients. After random assignment, participants in the control group were told that they could start therapy three months after the initial testing. Questionnaires were administered by a neutral observer. Therapists used a semi-standardised procedure, within the framework of a set of standardized, goal-oriented questions, different intervention methods were used depending on the clients' symptoms, which followed a well-defined theoretical system as it is taught in NLPt courses using the programme of the Austrian Training Center

for NLP&NLPt – ÖTZ (see www.nlpzenrum.at/NLP_Seminare).

Psychotherapists

Seven psychotherapists who participated in the study all have a University degree, have successfully completed NLPt Training Practitioner Level and NLP Training Master Level, in addition to a number of years of education in other therapy directions, with 10 to 20 years experience in therapeutic work. For the purpose of this study there was a mutual agreement to solely use the NLPt framework to describe the client and the therapeutic process, and that in therapeutic work the 'NLPt goal-model' and a clearly defined set of NLPt methods and techniques would be used.

Motives for entering therapy

The primary reasons for participants to enter therapy, stated in their own words, were in the categories: 'removal of distressing symptoms' ($n = 44$), 'altering disturbed patterns of behavior' ($n = 12$), 'improving interpersonal relationships' ($n = 19$), 'improving coping with stresses of life' ($n = 12$), and 'personal growth and maturation' ($n = 19$).

Descriptives of the therapy and control groups

The participants were randomly assigned to the therapy or control group – every first person to the therapy group and every second to the control group (Table I).

Data analysis

Pre-post comparison in therapy group. Changes in the course of therapy group on three occasions (pre-, post-, and follow-up measurements) were computed using one-way within-subjects ANOVA analysis of variance.

Comparison of the therapy and control groups. Changes in the course of time of the therapy group as opposed to the control group were assessed by Repeated Measures Analysis of Variance. In addition, t-tests were computed in order to examine follow-up data as compared to the post-measurements. In accordance with Grawe et al. (2001), (cf. also Cohen, 1992) effect sizes were computed in order to determine the amount of change that occurred in the therapy as compared to the control group.

Table I. Demographic profile of participants.

	Therapy ($n = 54$)	Control ($n = 52$)
<i>Age</i>		
20 and less	4	6
21–30	20	15
31–40	16	12
41–50	11	12
51–60	2	5
61 and over	1	2
<i>Gender</i>		
Male	9	13
Female	45	39
<i>Marital status</i>		
Married	18	21
Widowed	2	3
Divorced	4	6
Separated	1	1
Single	29	21
<i>Education</i>		
College	22	23
University	28	28
Postgraduate	4	1
<i>Occupational status</i>		
Employed	32	27
Unemployed	9	11
Pupil/student	10	10
Retired	3	4

Results

Pre-post comparison in therapy group

One-way within-subjects multivariate ANOVA showed that results of therapy group on SCID II changed significantly across the three tests, $p < 0.01$ ($p = 0.000$). Results showed a significant decrease in psychological difficulties in time (repeated measure is SCID-II) (Table II).

One-way within-subjects multivariate ANOVA showed that results of the therapy group on KVZ Predictor variables changed significantly across the

Table II. Descriptive statistics of SCID II* results in the therapy group at measurement occasions t_1 (pre), t_2 (post) and t_3 (follow-up).

	Mean	SD	N
SCID-II 1 Results	8.61	7.38	54
SCID-II 2 Results	3.87	5.44	54
SCID-II 3 Results	1.83	4.47	54

*SCID II consists of 118 questions, for each a result between 0 (does not apply to me) and 2 (applies very much) can be given. The mean value theoretically lies in the area between 0 and 236.

three tests, $p < 0.01$, ($p = 0.000$). Results showed significantly greater perceived quality of life in time (repeated measure is KVZ-P) (Table III).

One-way within-subjects multivariate ANOVA showed that results of the therapy group on KVZ Criterion variables changed significantly across the three testings, $p < 0.01$ ($p = 0.000$). Results showed significantly greater perceived quality of life in time (repeated measure is KVZ-C) (Table IV).

Comparison of the therapy and control groups

A multivariate analysis of variance indicated that – all measures taken together – at the start of intervention, the therapy group did not differ significantly from the control group ($F = 0.855$, $p = 0.467$). The therapy group and the control group did not differ significantly with respect to age group ($\chi^2 = 3.312$, $df = 5$, $p = 0.652$), gender ($\chi^2 = 1.119$, $df = 1$, $p = 0.290$), marital status ($\chi^2 = 2.074$, $df = 4$, $p = 0.722$), educational level ($\chi^2 = 1.785$, $df = 2$, $p = 0.410$), or employment status ($\chi^2 = 0.729$, $df = 3$, $p = 0.866$) (Kruskal Wallis Test Statistics).

Table V gives the descriptive statistics of the therapy and the control group with respect to SCID-II as well as to the predictor and the criterion variables of KVZ.

In order to assess the different development of the therapy group as compared to the control group between pre-occasion (t_1) and post-occasion (t_2) measurement, for all three measures taken together, a Multivariate Repeated Measurements ANOVA was computed. A highly significant within subjects effect (i.e. development over time, $F = 8.114$, $p = 0.000$) and a highly significant time \times group interaction (i.e. different development of therapy vs. control group) was found. For three variables under consideration, these interactions are shown in Figures 1–3.

Table III. Descriptive statistics of KVZ-P results in the therapy group at measurement occasions t_1 (pre), t_2 (post) and t_3 (follow-up).

	Mean	SD	N
KVZ Results 1 – Predictor variables	3.457	0.652	54
KVZ Results 2 – Predictor variables	3.756	0.550	54
KVZ Results 3 – Predictor variables	3.861	0.462	54

The KVZ scale of predictor variables consists of 17 questions, for each a result between 1 (very dissatisfied) and 5 (very satisfied) can be given. The mean value theoretically lies in the area between 1 and 5.

Table IV. Descriptive statistics of KVZ-C results in therapy group at measurement occasions t_1 (pre), t_2 (post) and t_3 (follow-up).

	Mean	SD	N
KVZ Results 1 – Criterion variables	3.126	0.870	54
KVZ Results 2 – Criterion variables	3.550	0.721	54
KVZ Results 3 – Criterion variables	3.726	0.731	54

The KVZ scale of criterion variables consists of 6 questions, for each a result between 1 (very dissatisfied) and 5 (very satisfied) can be given. The mean value theoretically lies in the area between 1 and 5.

Follow-up after five months (therapy group only)

Most (48) of the 54 participants of the therapy group participated at follow-up. Multivariate tests indicated that, taking all measures together, there was a further significant improvement ($F = 3.672$, $p = 0.019$). Univariate tests revealed that these improvements could be attributed to changes in SCID-II scores ($p = 0.002$) and KVZ criterion ($p = 0.019$) variables, whereas with respect to KVZ predictor variables ($p = 0.124$) no significant change between t_2 and t_3 occurred.

Effect sizes

It is important to note that effect sizes between t_1 and t_2 pertain to a comparison of the therapy vs. the control group¹, whereas effect sizes between t_1 and t_3 only pertain to the therapy group².

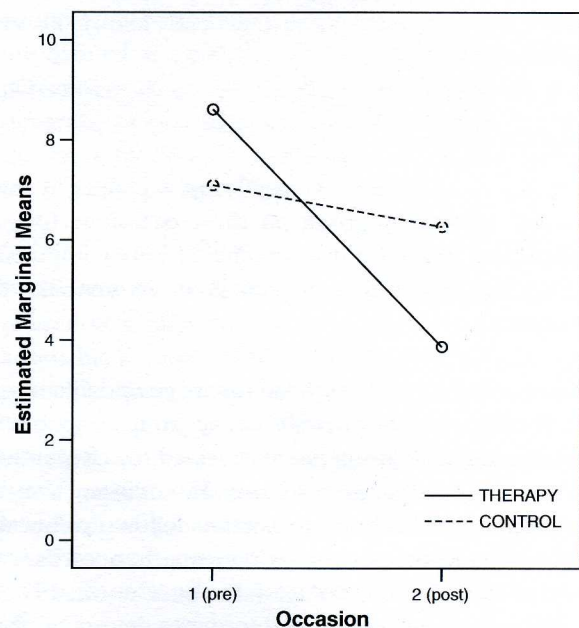


Figure 1. Repeated Measures ANOVA: time \times group interaction for SCID-II.

Table V. Descriptive statistics of therapy and control group at measurement occasions t_1 (pre), t_2 (post) and t_3 (follow-up).

	SCID-II Sum		KVZ Predictor Variables		KVZ Criterion Variables	
	Mean	SD	Mean	SD	Mean	SD
<i>Therapy Group</i>						
Pre (t_1)	8.61	7.38	3.46	0.65	3.13	0.87
Post (t_2)	3.87	5.44	3.76	0.55	3.55	0.72
Follow-up (t_3)	1.83	4.74	3.86	0.49	3.73	0.78
<i>Control Group</i>						
Pre (t_1)	7.10	5.86	3.42	0.49	2.99	0.72
Post (t_2)	6.27	5.91	3.36	0.56	3.02	0.83

SCID II consists of 118 questions, for each a result between 0 (does not apply to me) and 2 (applies very much) can be given. The mean value theoretically lies in the area between 0 and 236.

The KVZ scale of predictor variables consists of 17 questions, for each a result between 1 (very dissatisfied) and 5 (very satisfied) can be given. The mean value theoretically lies in the area between 1 and 5.

From Table VI it can be seen that with respect to SCID-II, between t_1 and t_2 moderate effect sizes were achieved, while between t_1 and t_3 , based on SCID-II results, therapeutic effects were substantial. Based on both scales of KVZ, moderate results were achieved.

Statistical analysis did not reveal any significant correlation between therapy effects and the examined socio-demographic variables (age, gender, educational level, marital status, employment status). The only significant correlation was found with respect to the number of psychotherapeutic sessions, indicating that a larger number of sessions was correlated with

more significant improvements. The number of psychotherapeutic sessions correlated slightly but significantly with symptom reduction on SCID-II between t_1 and t_2 ($r=0.27$) and there was a low but significant correlation with the increase in quality of life, as measured by the predictor variables of KVZ between t_1 and t_2 ($r=0.21$).

Discussion

The findings of this study highlight a number of areas concerning the application of NLPt in practice. The study sample shows that a majority of clients

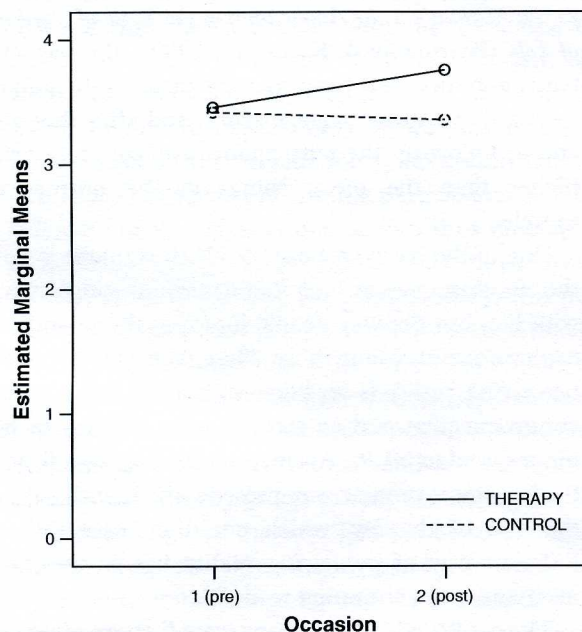


Figure 2. Repeated Measures ANOVA: time \times group interaction for KVZ Predictor Variables.

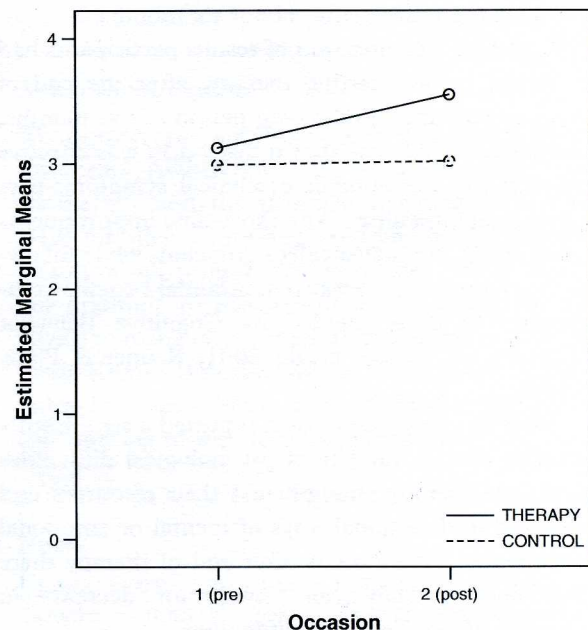


Figure 3. Repeated Measures ANOVA: time \times group interaction for KVZ Criterion Variables.

Table VI. Effect sizes (absolute values).

	SCID-II	KVZ-Predictor Variables	KVZ-Criterion Variables
Effect size $t_1 - t_2$	0.65	0.65	0.51
Effect size $t_1 - t_3$	1.09	0.69	0.73

who were seeking psychotherapy in practice were women, well educated (college being the minimum level of education), aged between 21 and 50, mean age 34. With respect to sociodemographic variables, the sample is comparable to samples in similar studies.

Although there is sufficient support for quick positive effects of different techniques like e.g. anchoring (Reckert, 1994), visual-kinesthetic dissociation (Einspruch & Forman, 1988; Kozley & McLeod, 1987; Liberman, 1984) that does not mean that NLPt therapy needs to be viewed as a short-term therapy only. There was a small but significant correlation between length of therapy and therapy success, which also was found in the study by Genser-Medlitsch and Schütz (1997). Morschitzky (2006, p. 65) states that the contribution of longer therapies goes beyond resolving presented symptoms and enhances self-esteem, the capability to establish relationships, the ability to cope with everyday stress and raises productivity in the workplace. Howard, Kopta, Krause, and Orlinsky (1986) showed that the more psychotherapy, the greater the probability of improvement, with diminishing returns after about six months.

Based on a comparison of results participants had achieved before starting therapy, after the end of therapy and after a follow-up period of five months, the present study has shown that NLPt was effective in reducing the number of clinical symptoms-psychological difficulties. The short-time improvements were small, but statistically significant, while follow-up measurements revealed substantial benefits comparable to those yielded by Cognitive Behavior Therapy (cf. Grawe et al., 2001; Renner & Platz, 1999).

After therapy, participants reported a significantly smaller overall number of psychological difficulties and thus therapy strengthened their resources and reduced dysfunctional ways of mental or emotional experience. Five months after end of therapy there was another statistically significant decrease in number of psychological difficulties.

Numerous follow-up studies have tracked patients after leaving treatment for periods ranging from six

months to over five years. These studies are fairly consistent in demonstrating that treatment effects are enduring. For example, the study of NLPt by Genser-Medlitsch and Schütz (1997), reviews of depression (Nicholson & Berman, 1983; Neimeyer, Robinson, Berman, & Haykal, 1989), social phobia (Feske & Chambless, 1995), generalised anxiety disorder (Gould, Buchminster, Pollack, Otto, & Yap, 1997).

The fact that in this study the results of testing five months after therapy ends showed a further statistically significant improvement might support the idea of generative change in NLPt. Generative change implies that the role of therapy is not only to assist the client in making desired changes, but also to give him/her reference-experiences and tools to further build upon and use, as well as to activate unconscious processes that continue to promote personal development and growth.

The perceived quality of life was enhanced after therapy, meaning that the participants reported a greater satisfaction with current life circumstances, and also a more positive overall view of their lives. Compared to the normative data on adults published in the *Manual for the Application of the Scale of Quality of Life* (Krizmanic & Kolesaric, 1992), the participants in both control and therapy group at the initial testing had a lower average score, and after therapy and at follow-up the participants average score was higher than the mean values in the normative sample.

One of the basic premises of NLPt is that it is not the circumstances as such that determine satisfaction with life, but the way people interpret them, and so exploring and using more life-enhancing ways of perceiving reality is an inherent part of therapeutic communication and an integral part of many techniques used in NLPt. Again, a statistically significant further improvement was present five months after the end of therapy, which could indicate that a different way of perceiving reality has maintained itself and was continuing to develop.

The results of NLPt therapy were further analysed based on the comparison between the therapy and control group. When looking at the results of the

control group it is evident that there was also, although not statistically significant, a movement in direction of improvement of condition – less psychological difficulties and a more positive outlook. There may be various reasons for that, such as regression towards the mean, a statistical phenomenon which reflects that people mostly request therapy when they are in an exceptionally bad state and that, even without therapy, with time there is a tendency to regress in direction of an average state, which is subjectively less disturbing. The fact that this natural tendency can be seen in our results could be interpreted as supporting the idea that being in the control group did not show negative effects (which could have inflated the difference between the therapy and control group as an intervening factor in which case the contrast to an ineffective group might enhance the apparent efficacy).

The comparison between therapy and control group confirms the previously described results of a significant improvement regarding having less psychological difficulties and a more positive perception of current and overall life.

Limitations of the study

For ethical and practical reasons, adequate control groups are difficult to establish, and a vast number of possible intervening variables must be considered, making it difficult to compare various studies with each other. In other words, 'real life' circumstances make it difficult to comply with the standards of exact scientific procedure (Grawe, Donati, & Bernauer, 2001; Lind, Renner, & Ottomeyer, 2006; Renner & Platz, 1999). It was within these limitations that the present study was conducted.

It should be further noted that participants did not originate from a clinical population, thus making it difficult to compare the results with those from clinical studies. Thus, in the present study, it is not relevant to apply the criteria of clinical significance, as suggested by Jacobson and Truax (1991), but to undergo further research with clinical populations.

Another limitation of the study pertains to the fact that the time between the first and second assessment in the therapy group varied, depending on the individual length of therapy. This period of time also differed from the three-month period between the assessments in the control group. In this respect it is important to note however, that the primary objective of therapy, namely to help people in need, is only partly compatible with scientific demands and in

real-life situations it is not possible to define a time-frame which would be suitable for all clients.

Conclusions

This study confirms that NLPt is an effective therapy method in supporting people to resolve psychological difficulties and develop a more positive perception of their quality of life, regarding current life-circumstances as well as overall attitude.

This study adds weight to the assertion of NLPt therapy as not only helping people resolve current difficulties, but also helps foster new learning and personal development.

It is hoped that the study will contribute to a wider recognition of NLPt as a valid psychotherapeutic method within the psychotherapeutic community. As the study was designed to explore the overall effects of NLPt, it offers ideas and direction for the next steps in research, which might be to focus on comparisons between NLPt and other methods and/or comparisons between different types of interventions/ symptoms, also in correlation with different characteristics of participants (gender, age, diagnoses etc.).

As one of the results of the study was the statistically significant improvement at follow-up, discussed as a possible effect of the NLPt notion of generative change, it would be interesting to also further elaborate and investigate that concept in future research designs.

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Notes

¹ Jacobs (2005): Effektstärke mit Korrektur von Vortestunterschieden [Effect size with correction of pre-test differences].

² Jacobs (2005): Berechnung der Effektstärke d für abhängige Stichproben [Computation of effect size d for dependent samples].

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