THE APPLICATION OF NARRATIVE PSYCHOLOGICAL APPROACHES IN ADDICTION MEDICINE

Doctoral (PhD) thesis

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Introduction

The 1968 publication of *Language and Mind* by Noam Chomsky launched the application of linguistic approaches in studying the human soul. The combination of these two scientific fields generated progressive development, as a result of which narrative approaches have gained significant ground in the field of psychology and its frontier areas in the past 25 years. However, the development and spread of narrative psychology, which identifies itself as a sociopsychological school while, at the same time, feeding on the findings of many scientific fields (e.g. cultural anthropology, communication theory, cognitive psychology) does not seem to have stopped. Its theoretical approaches and techniques are not unfamiliar to criminology or even spy organisations. In Hungary its first successful use occurred in suicide research and recently it has been applied in addictology as well, leading to the publication of several studies in this field. It has also been proposed that the future of psychology lies in narrative psychology due to its promising application in the clinical field. According to Bea Ehmann, narrative psychology is the frontier area of metatheory on self- and representation research and that of text and representation research, as well as the storehouse of devices revealing the characteristic features of a narrative that can be interpreted psychologically.

Narrative psychological content analysis has also been used for the indirect measurement of social support. A recent study of Pressman and Cohen confirms the correlation between longevity and social support. According to their findings the frequent use of words suggesting social roles and integration (e.g.: father, sister, neighbour, colleague, etc.) correlates with a longer lifespan. According to their conclusion, analysing the frequency of social words in autobiographies can provide an indirect method to assess the social network of individuals and thereby predict their life-expectancy. The findings of recent research suggest that the extent of social support, the quality and quantity of social connections and the social activity of individuals play a more important role in preserving health, treatment and rehabilitation than we earlier suspected. Some authors go as far as to expect and promote a paradigm shift, which will significantly transform the system of health care as well. The investigation of the phenomenon, which affects several professions in the field of health and social care, can

set changes in motion both in theoretical approaches and in interventional techniques. As a by-product of the study to be presented we will make an attempt to draw conclusions consistent with the results of recent research that found correlation between social support and health status.

Objectives

During the investigations presented in the dissertation we aimed to find new, practical applications of narrative psychological approaches in the field of addictology. We tried to shed light on its differential diagnostic, prognostic and therapeutic merits in the therapy of alcohol addicts with the help of a relatively low number of linguistic codes. We performed 3 studies; in the first one we detected linguistic codes characteristic of alcohol addicts, in the second one we tried to find recovery predictors and protective factors via the indirect measurement of social support, and in the third one we aimed to develop, introduce and evaluate a group therapy method based on narrative psychological approaches.

Our study was the first to investigate the characteristic linguistic features of alcohol-dependent male patients at the Department of Psychiatry, County Hospital of Zala. Our aim was to find typical deviations that characterise the linguistic expressions of alcohol addicts. In order to do this we set the following hypotheses based on the relevant scientific literature and our subjective observations:

I. There is a measureable difference between the verbal expressions (and, consequently, the way of thinking) of alcohol abusers and healthy subjects.

II. In contrast to previous, problem-focused studies verbal expressions do not only differ in communication associated with critical situations that necessitate coping, but also in neutral or even positive situations.

III. Following prolonged abstinence (at least 2 years) the majority of these specific verbal expressions that characterise alcohol abuse become steady and persist, but a small part is restored to resemble the linguistic use of healthy subjects (Thus this

characteristic language use is not the result of structural brain changes and accompanying cognitive decline characteristic of chronic alcohol abusers).

Based on the above mentioned results of Pressman and Cohen we drew the logical conclusion that the frequency of social words occurring in the autobiography of alcohol addicts is likely to correlate with recovery or relapse. In our second study we aimed to confirm this assumption.

As regards therapeutic application, we considered the therapeutic reconstruction of autobiographies to be feasible; and it led to further research. Our research hypothesis was based on the above mentioned literature review and findings, and we presumed that the controlled restructuring of autobiographies (which serve as self-representations of alcohol abusers) can result in measureable therapeutic effects, thereby promoting patients' recovery. (By „restructuring" we meant finding and transforming linguistic codes characteristic of alcohol addicts, controlled presentation of social connections as well as recalling previous situations and events that necessitated coping.)

Methods

The first two studies involved content analysis, which was performed with the help of Atlas.ti 5.0 (trial free version) content analysing software in both cases. First we compared the frequency of linguistic codes gained from the personal history of cases and controls, then we compared the frequency of the codes we considered suitable for the detection of certain psychological phenomena.

In our second study we compared the autobiographies of recovered and relapsed alcohol addicts by examining the frequency of words suggesting social connections with the help of Atlas.ti 5.0 (trial free version) content analysing software.

Finally we examined the efficiency of our group therapy method which was based on the controlled restructuring of patients' autobiographies. The idea of this type of group therapy originated partly from our own results and partly from other studies investigating the characteristic verbal expressions of alcohol addicts. The outcome was

measured with the help of two psychological tests: the *Hopelessness Scale* (HS) and the *Means-Ends Problem Solving Procedure* (MEPS). The measurements were performed in control groups receiving other types of group therapy in order to prove that the changes detected were not barely due to 3 weeks of abstinence or to other therapeutic interventions.

Results

In our first study we managed to prove our assumption, namely that there is measureable difference between the verbal expressions of alcohol dependent male patients and healthy controls. The use of four linguistic codes (*negative, future, alcohol, contrasting, connective, explanatory, conjunction*) we considered suitable for detecting specific psychological phenomena and the establishment of type/ token ratio confirmed the existence of significant, measureable differences. As the results gained with the help of the above mentioned linguistic codes came from pleasant and positive „good stories" in the case of all 3 groups, we are confirmed that the verbal expressions of alcohol dependent male patients differ from those of healthy ones beyond approaches used to reveal problematic situations in other patient groups, not only in critical situations that necessitate coping but also in connection with neutral or even positive situations and events. Our third hypothesis was only partly proved; we found that recovered alcohol dependent patients use a specific system of linguistic codes that differ from both healthy and alcohol dependent subjects.

In our second study we performed a Chi-square test to compare the frequency of linguistic codes referring to four categories of social connections: *family connections* (Figure 1), *other connections* (Figure 2), *the presence of connections in verb stems* (Figure 3) and *self-help*. We found significant differences in the use of social words between the groups consisting of recovered and relapsed alcohol dependent patients (p=0.000155<0.01). Therefore our findings confirm the relationship between recovery and the quality and quantity of social connections and this relationship can be assessed by measuring the frequency of social verbs in the autobiographies (Table 1).
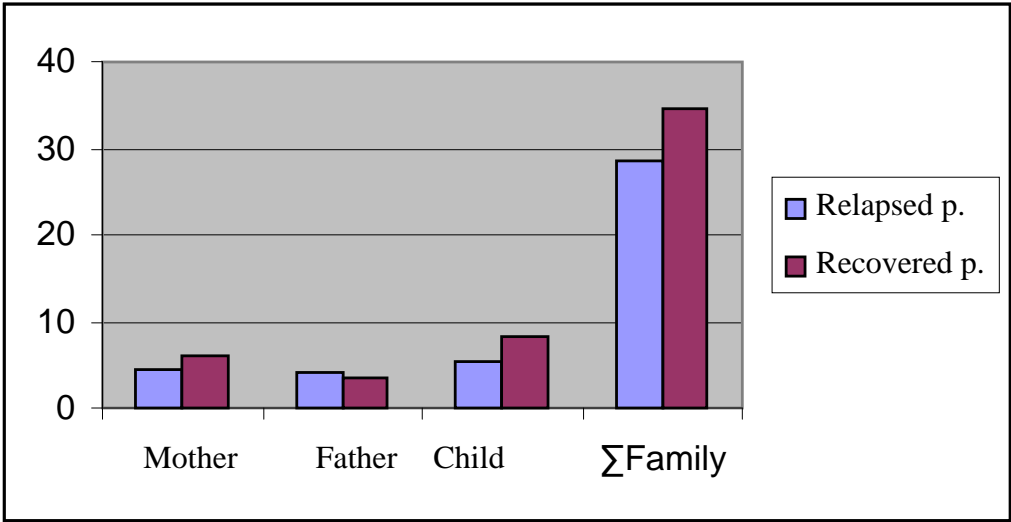
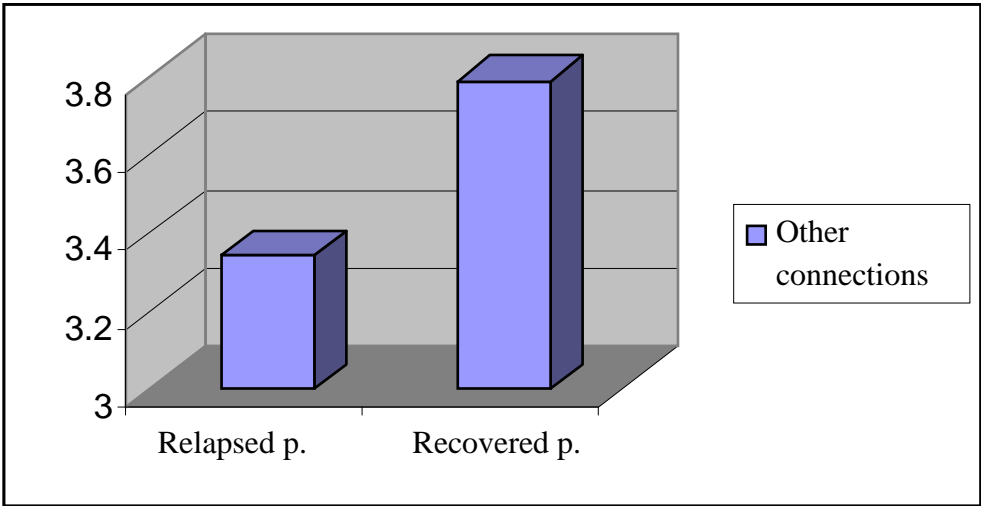**Figure 1.** Family connections. (Frequency of occurrence, ‰)

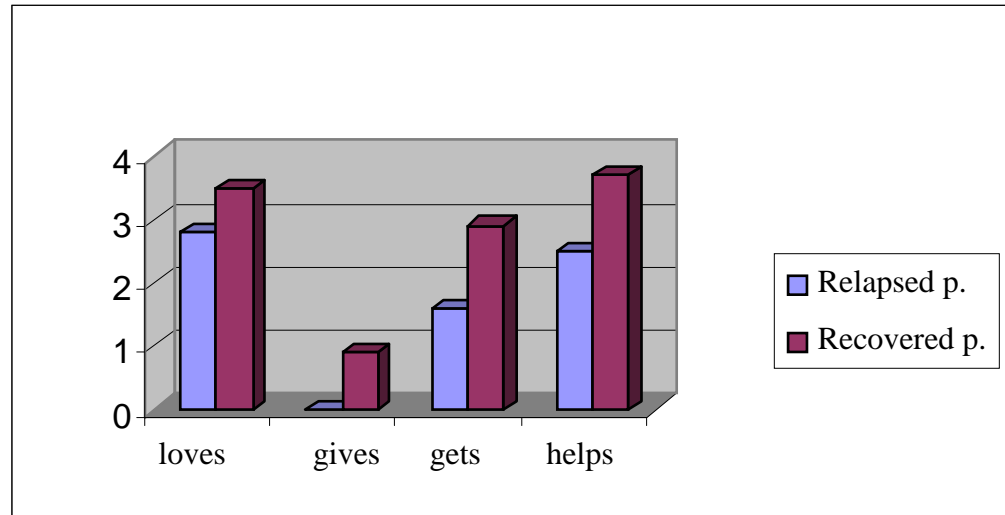**Figure 2.** Other connections (Frequency of occurrence, ‰)

Figure 3. The presence of connections in verb stems. (Frequency of occurrence, ‰)

Categories	Frequency of occurrence in relapsed patients (‰)	Frequency of occurrence in recovered patients (‰)
Mother	4.6	6.0
Father	4.2	3.6
Child	5.4	8.3
∑ Family	28.7	34.6
Other connections	3.4	7.9
Loves	2.8	3.5
Gives	~0	0.9
Gets	1.6	2.9
Helps	2.5	3.7
Self-help	~0	2.3

Table 1. Examined categories.

In our third examination the mean rate of change considering the *Hopelessness Scale* was the highest in the case group; there was a measureable decrease in hopelessness in their case. (Figure 4). When comparing the case group and the alcohol addict control group at p=0.05 level of significance, we received a higher calculated t value (2.47) than the one corresponding to that level of freedom (1.7), which means that the difference between the two samples is significant. The comparison between the data of the cases and a control group of anxiety patients did not result in a significant difference, even though the difference between the two groups is readily visible in the diagram (Figure 14). The results gained from the *Means-Ends Problem Solving Procedure* were compared in a similar way. We detected a significant difference (t=1.79) between the case and the alcohol addict control group, and we had the same results (t=3.83) when comparing the case and the anxiety control group. This difference is well visible in the bar graph illustrating the mean rate of changes (Figure 15). Comparing the results of the control groups yielded no significant difference in either case. Based on these results we consider our hypothesis justified.
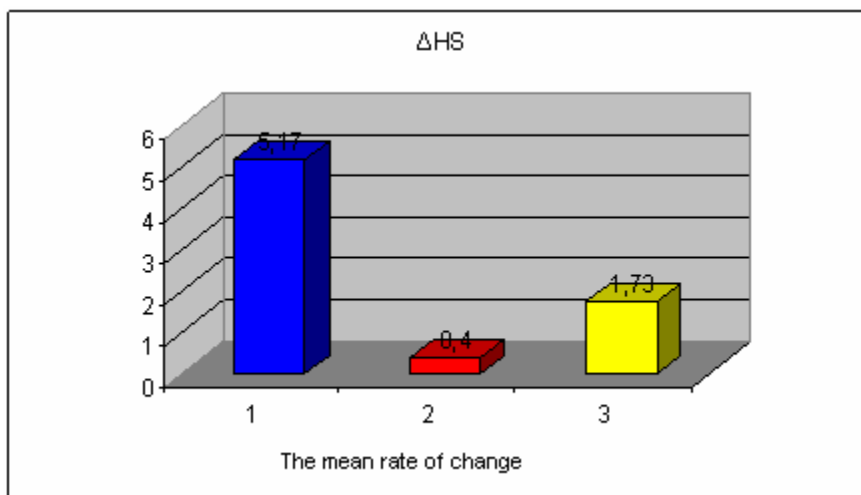

Figure 4. The mean rate of change in hopelessness in the case and control groups.
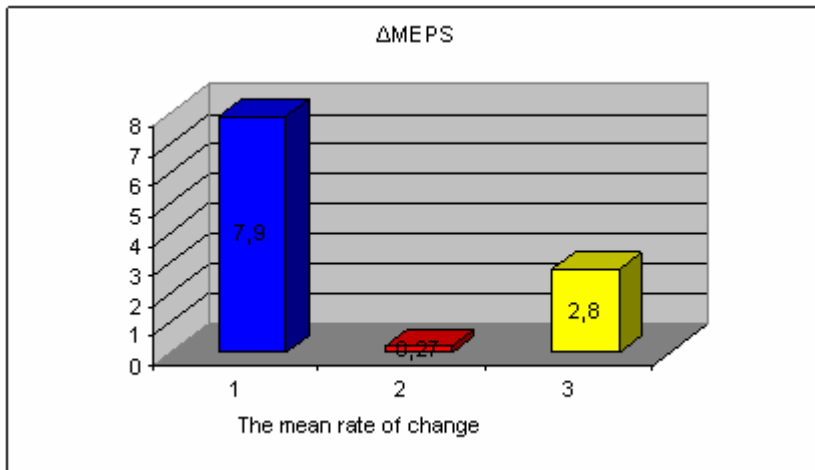
Figure 15. The mean rate of change in problem solving ability in the case and control groups.

Discussion

Although contemporary scientific literature does not consider narrative psychology (which is based on several scientific fields as well as on the theoretical approaches of psychology) as an independent model, and even its followers identify it as a school of social psychology, narrative psychology provides a broad framework for interpretation and enables us to develop exploratory and therapeutic techniques. Besides clinical psychology other professional activities that feed largely on psychology, such as social work and addictology follow, apply and integrate the findings of narrative psychological research into their own theories and repertoire, thereby creating new trends within the given professional field (e.g.: narrative social work). In our studies we managed to find differential diagnostic, prognostic and therapeutic results that are based on narrative approaches and can be used in the care of addicts. It has become obvious that narrative psychological approaches are capable of detecting psychological mechanisms underlying addiction, revealing cultural and subcultural differences present in the background of substance abuse, evaluating spontaneous and therapeutic indicators of recovery and facilitating recovery through the controlled reconstruction, transformation of linguistic expressions. We performed our investigations in alcohol abusers as nowadays they represent the biggest subgroup among the patients of Addictology, and harms caused by alcohol consumption constitute the most severe problems affecting

both the individual and their environment. Considering the unfavourable situation of Hungary relative to other European countries, the treatment and rehabilitation of alcohol abusers is of marked importance, not to mention prevention and harm reduction. Our study did not cover other types of addiction but provided that the same methods are used, you can expect similar results among other substance abusers and behaviour addicts. The relationship between the extent of social support and recovery from mental disorders and addictions has been known for a long time but we also have recent research results at hand. Together with Pressman and Cohen several researchers have found correlation between the extent of social support and longevity. Although our most basic understanding - according to which health impairment is mostly brought about by genetic and environmental factors, life events and lifestyle - will not be altered significantly by these results, the quality and quantity of social connections will certainly be added to the list. The paradigm shift envisaged by some authors is likely to happen sooner or later, and social support and social activity, which have proved their importance in the preservation of health and recovery, will have to be taken into account when providing health and social care. It means that our methods – modified according to the characteristic features of the given population – may be integrated into the treatment of not only psychiatric patients and addicts but also in behavioural therapy, health preservation and health promotion. It can also play a significant role in the prevention of burn-out syndrome in professional carers, as social support and social activity is known to be a protective factor among many other things. The assessment and alteration of the above mentioned factors can also be carried out with the help of our method. In summary I could say that our research has paved the way for several other studies in the future.

Besides making them more objective, it is possible as well as necessary to further research and specify the differential diagnostic opportunities of narrative psychological approaches. We have research plans to perform a more objective investigation of linguistic expressions. While analysing patients' stories we cannot avoid hearing about extremely hard and tragic lives that are undoubtedly hard to talk about without negative codes. Therefore we are planning a study to compare the linguistic expressions of patients suffering from mental disorders and those of healthy subjects. During the study the participants will listen to a short story written by a healthy person and a couple of hours later they will have to retell the same story using first-person singular. We

presume that this way we could detect more exact differences and, following the examination of several patient groups, we could compile the identified disease-specific linguistic codes to create a psychological test.

Half a decade ago János László predicted that the future direction of psychology lies in narrative psychology due to its possible applications in the clinical field. The publications of the recent years have realised this prediction as several papers report the progressive use of narrative approaches and content analysis in the field of psychiatry, addictology and various frontier areas of psychology. Our research findings have also confirmed its importance and relevance.

Scientific results

1. During the first research we managed to identify linguistic codes characteristic of alcohol addicts, the frequency of which measurably differs from that of those found in the similar narratives of both healthy controls and recovered alcohol dependent patients who have been abstinent for at least 2 years. Besides this, our study found some linguistic codes used by recovered alcohol dependent patients that are similar to the ones used by healthy subjects and different from the ones used by alcohol abusers. In addition, we found some data that suggest the existence of a specific set of linguistic codes that is only characteristic of recovering patients. We managed to prove that these linguistic changes are not the consequences of a possible cognitive decline developed as a result of alcohol consumption, but they are characteristic features of psychological and cultural factors which can be detected in alcohol dependence. I attach differential diagnostic importance to the results of our study: together with the medical diagnosis they can confirm the presence of alcohol addiction, they can identify abstinent patients who no longer have symptoms or they can reveal the psychological mechanisms underlying addictions.

2. In our second study we examined the social support and social network of individuals through analysing the frequency of social words in the autobiography of relapsed and recovered alcohol dependent patients. We proved that there is a significant difference between the data of the 2 groups, and – as social support plays a very important role in the recovery of alcohol addicts – that the frequency of social words has predictive significance. Our findings can set interventional guidelines for social workers and other carers to improve the rehabilitation of these patients (e.g. family therapy, family consultation, community care, self-help, etc.). Thus they can be used in rehabilitation plans or to measure the efficiency of our care.

3. In the third study we developed a group therapy technique which aims to transform the characteristic verbal expressions of alcohol addicts revealed by narrative psychology, and to make these expressions similar to the ones used by healthy people, thereby relieving mental functions that maintain alcohol consumption, such as hopelessness, failure or lack of problem-solving skills and the poor subjective evaluation of the individual's social support. We assessed the efficiency of our group therapy technique and it proved to be effective. It can be used in any stage of rehabilitation, in various institutional frameworks and it can be introduced into the interventional profile of several professions.

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First-author publications on the topic of the dissertation:

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