Characteristics and experience of the patient in psychotherapy and the effectiveness of psychotherapy. A structural approach

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Summary

Aim. The study concerns the relationship between three groups of variables presenting the patient’s perspective: (1) “patient’s characteristics” before psychotherapy, including “expectations of the therapy”; (2) “experience in the therapy”, including the “psychotherapeutic relationship”; and (3) “assessment of the direct effectiveness of the psychotherapy”. Data from the literature are the basis for predicting relationships between all of these variables.

Material and method. Measurement of the variables was conducted using a follow-up survey. The survey was sent to a total of 1,210 former patients of the Academic Center for Psychotherapy (AOP) in which the therapy is conducted mainly with the students and employees of the University of Warsaw. Responses were received from 276 people. 55% of the respondents were women and 45% were men, under 30 years of age. The analyses were performed using structural equations.

Results. Two models emerged from an analysis of the relationship between the three above-mentioned groups of variables. One concerns the relationship between (1) the patient’s characteristics (2) the course of psychotherapy, in which – from the perspective of the patient – there is a good relationship with the psychotherapist and (3) psychotherapy is effective. The second model refers to (2) the patient’s experience of poor psychotherapeutic relationship and (3) ineffective psychotherapy.

Conclusions. Patient’s expectations of the psychotherapy (especially “the expectation of support”) proved to be important moderating variables in the models – among the characteristics of the patient. The mathematical model also revealed strong correlation of variables measuring “the relationship with the psychotherapist” and “therapeutic interventions”.

Key words: psychotherapy, efficacy, statistical models

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Introduction

This research concerns relationships that are observed in psychotherapy between groups of variables: (1) “characteristics of the patient” before therapy, including “expectations toward the psychotherapy”; (2) “patient’s experience in the therapy”, including the “relationship with the therapist”; and (3) “the effectiveness of the psychotherapy”. Data from the literature indicate interrelationships of all these groups of variables [1–3]. The most commonly reported studies in the literature have explored the correlation between individual variables [3–5].

The aim of this study was to build a single model that would take into account all of the tested variables and would disclose their relationships [6–10]. The analyses were conducted with the use of mathematical modeling using structural equations. This allowed to detect mutual dependencies between variables in a single model; it also revealed negligible and apparent dependencies between variables [10]. Such information about the actual relationships between variables cannot be concluded on the basis of analyses which are limited to searching for relationships between individual variables [11].

Taking into account the patient’s perspective in this study is important for two reasons, as cited in the literature: (1) only the patients are able to assess their experience gained in the process of psychotherapy; (2) a large discrepancy has been reported in many research studies between assessment of the effectiveness of the psychotherapy from the perspective of the patient and from that of the therapist [12, 13]. It should be added that a study of the psychotherapeutic process from the patient’s perspective has rather rarely been reported in the literature [14].

Patient’s characteristics – including expectations toward the psychotherapy – patient’s experiences in the therapy and the effectiveness of the therapy

The characteristics of the patient before the start of psychotherapy most often include such variables as: age, gender, education, place of work, patient’s personality, ailments and problems that have led him/her to take up treatment, as well as patient’s expectations from the psychotherapy [3, 15–17].

The patient’s expectations regarding the psychotherapy may be: (1) the desire to eliminate the symptoms; (2) motivation to change oneself – to better cope with life, to know and understand oneself, to change one’s characteristics, experiences and behavior; and also (3) the desire to receive care and support, to reduce one’s sense of loneliness and to get help in a difficult situation [3, 17, 18]. The extent to which the patient’s expectations are met as a result of psychotherapy is one of the criteria of psychotherapy efficacy [2, 3].

Research studies have revealed that the patient’s expectations regarding treatment are determined by the rest of the patient’s characteristics [16]. And so, for example, patients suffering from bipolar disorder (manic episode) show very optimistic expectations toward the process of psychotherapy. In contrast, patients addicted to psychoactive substances have rather negative expectations toward the therapy.
Characteristics and experience of the patient in psychotherapy and the effectiveness

Studies have shown that the patient’s characteristics affect his/her commitment to and the work of the psychotherapist [19]. The patient’s characteristics, such as his/her age, can have an impact on the efficacy of the psychotherapy [20]. Studies have also revealed that personality traits determine the effectiveness of the therapy, e.g., patients with severe dominance characteristics had relatively larger benefits from psychotherapy [21]. There have been studies in which it was found that personality disorders illustrate the effectiveness of the psychotherapy to a greater extent than the working alliance [22].

The patient’s expectations toward the psychotherapy and the patient’s experience during its course

An important variable characterizing the patient’s experience in the psychotherapy is the psychotherapeutic relationship. Psychotherapists agree that the psychotherapeutic relationship should be subdivided into three parts. According to the tripartite model of the relationship between the patient and the therapist these are: (1) the working alliance; (2) transference and countertransference; and (3) the real relationship [23–27].

The patient’s expectations toward the therapy may determine the manner in which the patient experiences events during the psychotherapy and how he/she interprets them; these experiences refer especially to the working alliance. The research results reveal that positive expectations toward psychotherapy are associated with a good relationship between the patient and the therapist [18, 28]. Researchers testing the psychotherapy process are of the opinion that the psychotherapeutic relationship is the primary variable mediating between the patient’s expectations toward the therapy and psychotherapy effectiveness [18].

The first hypothesis concerns the existence of relationships between the patient’s expectations of and his/her experiences in the course of psychotherapy.

The patient’s expectations toward the psychotherapy and psychotherapy effectiveness

Studies have found that the patient’s expectations toward the psychotherapy can be directly related to the effectiveness of that therapy [18, 28, 29]. The nature of the relationship between expectations and effectiveness is explained by hope as a major healing factor in psychotherapy. However, excessive positive expectations toward psychotherapy may be the cause of treatment failure, e.g., patients expecting significant improvement may feel disappointed, let down by too low, in their opinion, effectiveness of the psychotherapy and, finally, may acknowledge that the process ended in a defeat [17].

According to the research, expectations toward the process of psychotherapy are positively associated with the psychotherapeutic relationship and with the effectiveness expressed in better dealing with life and in solving interpersonal problems [28]. Other studies have revealed that the expectations are connected with improvement understood as generally better functioning of the patient, understood especially as a consequence of relief from suffering [18].
The second hypothesis concerns the relationship of the patient’s expectations toward the psychotherapy and patient’s assessment of its effectiveness.

*Psychotherapeutic relationship and the effectiveness of the psychotherapy*

Many studies have confirmed the hypothesis put forward by Carl Rogers that the quality of the psychotherapeutic relationship can be healing [18, 21, 22, 30–36]. For example, patients who assessed the treatment as successful found that during therapy they experienced a large amount of autonomy, they had a good relationship with the psychotherapist and they experienced feelings of equality with the therapist [37]. Based on the meta-analyses of results, it has been estimated that the factors associated with the psychotherapeutic relationship are responsible for variation – from a few to 30% – of the results [4]. A conclusion regarding the research results is that effective psychotherapy depends not only on the actions of the psychotherapist but also on what experiences arise in the patient [25].

The third hypothesis concerns the relationship between the quality of psychotherapeutic relationship and the patient’s assessment of the effectiveness of psychotherapy.

*Psychotherapeutic interventions and the effectiveness of the psychotherapy*

The interventions the psychotherapist uses are related to the nature of the psychotherapeutic relationship. Researchers have emphasized the importance of working on transference in shaping the psychotherapeutic relationship [38]. An association has been found between therapist’s behavior and psychotherapeutic alliance [39]. The psychotherapeutic alliance is associated with both the psychotherapist’s and the patient’s behavior [40]. The psychotherapeutic alliance stays in connection with the effectiveness of the psychotherapeutic interventions [30, 31, 39]. The psychotherapeutic interventions may also affect the effectiveness of the psychotherapy. One’s initial satisfaction with the sessions has a connection with the effectiveness of the therapy [41, 42]. The corresponding number of sessions has a positive effect on the efficacy of the treatment, i.e., large enough, but not too high [43–45].

The study also found that the patient’s experience during the psychotherapy and psychiatric care have an effect on his/her assessment of the psychotherapy as being credible [46].

The fourth hypothesis concerns the relationship between the psychotherapeutic interventions and the patient’s assessment of the effectiveness of psychotherapy.

*Research method*

Based on the cited literature, especially concerning research on psychotherapy, it is difficult to build a model which explains the relationships between variables entangled in the psychotherapeutic process, as almost all of these variables are interrelated. This creates a methodological problem concerning construction of the model [10, 47].
From a mathematical point of view, structural models which have links among all the variables should not be built\(^1\) [7–10]. Therefore, in this study we built a model of the phenomenon by using the exploratory method, which involves sustained release of relationships\(^2\) between variables and the adoption of a model which has only statistically significant relationships and fits the data well [8, 10].

With the exploratory models there is, however, a problem in generalizing the dependencies that the model describes, i.e., to the population [48]. Therefore, the model that arises after analyzing the data can be treated as a theoretical one, however, it requires empirical verification in the future [7–10]. In other words, the solution we achieved should be verified on another sample.

The research plan

The study was a naturalistic correlational design. The groups of explanatory variables were:

1. “characteristics of the patient” before treatment, including:
   1.1 the reasons for having applied for psychotherapeutic help, i.e., the ailments, symptoms, type and severity of problems (e.g., related to learning, inhibitions in dealing with people, other issues connected with relationships with people);
   1.2 expectations toward the psychotherapy, including the type and intensification of motivation to undertake psychotherapy:
      1.2.1 elimination of symptoms;
      1.2.2 desire to change oneself;
      1.2.3 receiving support from the therapist, from other patients.
2. “experience within the course of psychotherapy”:
   2.1 psychotherapeutic interventions;
   2.2 psychotherapeutic relationship.
   The explained variable was the evaluation
3. of the direct effectiveness of the psychotherapy after it is finished.

Method of measuring the variables, research sample and procedure

Measurement of the variables was conducted using a follow-up survey that was sent to former patients of the Academic Center for Psychotherapy (AOP). The survey consisted of four parts describing: 1) patient’s characteristics before the psychotherapy; 2) patient’s experience in the course of therapy and patient’s assessment of the effectiveness of the psychotherapy; 3) immediately after, and 4) deferred in time (the follow-up period ranged from 1 year to 12 years).

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\(^1\) Because such models explain nothing.

\(^2\) Removal of relationships that were statistically insignificant from the model.
In this study we used the patients’ responses to selected questions of the first three parts of the questionnaire.

The follow-up survey was sent to 1,210 former patients of the AOP. Responses were received from 276 people, which constituted approx. 23% of the sent surveys. This relatively low percentage of respondents may be associated with: (1) a quite long, in some cases, follow-up period; and (2) an often occurring change of residence among the students/graduates. 55% of the respondents were women and 45% were men; mostly under 30 years of age (age given in the follow-up survey refers to the period in which the survey was completed).

The differences between respondents and patients who have not returned the questionnaire were examined [17]. For this purpose information from psychotherapists were used. It turned out that the respondents were patients who: (1) had received more therapy sessions; their psychotherapy had lasted longer; they had not stopped the therapy; (2) declared greater benefits from the therapy; or (3) their follow-up period was shorter [49]. In the study based on the results of interviews with patients of the AOP, no differences were found between respondents and non-respondents with respect to the patients’ characteristics, progress and effects of the psychotherapy [50]. Differences of the results in the two studies may be due to the different data – in the study I the perspective of the psychotherapists was taken into account, while in the study II – the perspective of the patients.

Results

We used a method of statistical analysis – the structural equation model (SEM) – to construct a model of the relationships of the patient’s experiences from the course of psychotherapy and an evaluation of that therapy’s direct effectiveness. Although the SEM is an advanced multivariate statistical method that was used to verify the theory in the present study, it was used to build an empirical model. It has, therefore, no status of a model verifying the theory because it was formed on the basis of empirical data [48, 49]. It could thus contribute to the development of the theory if other studies confirm the relationships we describe here [9].

Because the items in the follow-up survey were described in formats of responses from 0 to 1 and on an ordinal scale, the models were verified with the use of appropriate procedures. The results of both models reveal that they fit the data well. Latent variables were also characterized by sufficient reliability.

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3 In this case the WLSMV estimator was used, i.e., the formula gave results which were values of the parameter in the population, resistant to distributions deviating from normal. Similarly, just as the Pearson’s correlation estimator estimates the linear relationship between two variables, the WLSMV estimator is designed to study relationships between multiple variables whose distributions deviate from normal.

4 The RMSEA statistics had a value of 0.040, which is lower than the criterion of 0.08; and the value of $\chi^2/df$ was 1.449 and 1.619, thus lower than the criterion of 2.5.

5 Variables which are not subject to direct measurement and where variance is counted on the basis of observable variables. An example of a latent variable can be an intelligence variable which cannot be directly observed and is inferred on the basis of a person’s behavior.

6 Due to the fact that the factor loadings ($\lambda$) of latent variables were quite high.
Based on the results of the calculations of the structural models, it was found that all variables are grouped around the variables “good relationship with psychotherapist” and “not good relationship with psychotherapist”, and also around the variable: “direct effectiveness of the psychotherapy” (Figures 1 and 2). The grouping made the introduction of the first two variables to one model impossible because it led to a decline in the value of the matching models and the interpretative value.

Figure 1 shows the first model for patients experiencing a good relationship with the psychotherapist and evaluating the therapy as effective. Figure 2 shows the results of the second model, in which there is not good relationship with the psychotherapist and ineffective therapy.

Both models reveal that an important mediating variable between the patients’ ailments, problems and expected effects of psychotherapy – in the form of internal changes and getting the patients to know themselves – is “expectancy of support”, which means resting, getting help and care from a therapist or from group therapy and help in a difficult situation.

The relationships between the psychotherapeutic relationship and direct effectiveness of the psychotherapy are strong. In the first model this is a positive relationship...
– the more positive “the psychotherapeutic relationship” is, the higher “the direct effectiveness of the psychotherapy”. In the second model, the relationship between the psychotherapeutic relationship and direct effectiveness of the psychotherapy is negative – the greater the intensification of a bad psychotherapeutic relationship is, the lower “the direct effectiveness of the psychotherapy”.

The model of effective psychotherapy reveals that when patients evaluated the relationship with the therapist as good, they also pointed out that their therapist had (1) activated; (2) interpreted and informed; and (3) focused on the transference relationship. “A good relationship with the psychotherapist” is strongly positively associated with variable (4) “the direct effectiveness of the psychotherapy”.

In the second model, related to ineffective psychotherapy, “not good relationship with the psychotherapist” is associated with (1) small activation of the patient and (2) small informing and interpreting the patient and (3) is highly negatively correlated with the variable: “direct effectiveness of the psychotherapy”.

Figure 2. Second model, which presents an ineffective process of psychotherapy, $\chi^2 = 942.738$; $df = 582$; $\chi^2/df = 1.619$; CFI = 0.857; RMSEA = 0.047

Negative associations are indicated in italics (-0.37; – 0.83; – 0.86).
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Conclusions

In the present study we found that relationships exist among the three groups of variables: (1) “characteristics of the patient” before the therapy, including the expectations with which he/she started the psychotherapy; (2) “experience gained in the therapy”; and (3) “direct effectiveness of the psychotherapy”.

What distinguishes the presented study from other well-known studies in the literature is among others the detection of an important mediating variable – “the expectation of support”. It mediates between the other characteristics of the patient and the expected effectiveness of the psychotherapy. However, in this study we found that this relationship applies only to a fairly large group of patients – mainly students experiencing learning difficulties. In the case of patients experiencing problems in dealing with people, this relationship was statistically insignificant. Research described in the literature also led to the conclusion that only certain characteristics of the patient are associated with expected effectiveness of the psychotherapy [16].

The study found that variables from the group “patient’s characteristics before the treatment” are related to the group of variables concerning “patient’s experience in the course of treatment”. The two models revealed that among the variables concerning experiences, those that are important are variables that describe the patient’s perception of intervention methods used by the psychotherapist. Therapeutic interventions are operationalized by three latent variables: (1) “activating the patient”; (2) “interpreting and informing the patient”; and (3) “focusing on the transference relationship” – at a moderate and high level these are explained by either “a good” or “not good relationship with the psychotherapist”. When patients believe that the therapist has applied these interventions, then the relationship with the psychotherapist is experienced as good, and they had an impression that the therapist was interested in their problems; they assessed that this relationship was a partnership. The second model’s results revealed other dependencies; they related to patients who perceived their own therapist as weakly activating and interpreting them; they also assessed their relationship with him/her worse.

The models did not reveal a direct relationship between the variables: “patient’s characteristics” prior to the therapy and “the direct effectiveness of the psychotherapy”. These two groups of variables are associated by mediating variables, which include:

(1) “characteristics of the patient” prior to treatment, including the expectation of support and the expectation of other effects of psychotherapy;

(2) “experiences in the therapy”, consisting of (2.1) the methods and techniques used by therapists and (2.2) “relationship with the psychotherapist” – this variable is related in both models with the direct effectiveness of the psychotherapy. How the patient assessed the methods and interventions used by the therapist depended on how the patient had experienced his/her relationship with the psychotherapist and how the patient assessed the direct effectiveness of the psychotherapy.

The present results are consistent with numerous reports of studies which indicated that the psychotherapeutic relationship is the strongest predictor of the efficacy of
psychotherapy [18, 21, 22, 33, 34, 41–45]. There are numerous empirical data demonstrating that the techniques and methods used by psychotherapists are less important for efficacy than the psychotherapeutic relationship [4, 12, 14, 16, 25]. On the basis of the literature it cannot be defined though which methods and techniques, i.e., more than others, favor the effectiveness of the psychotherapy [2]. The research results in this regard are divergent and heterogeneous.

The results obtained by using structural equation models allowed, as it seems, to resolve this issue. The psychotherapeutic relationship was the strongest predictor of the direct effectiveness of the psychotherapy. However, the techniques and methods used by the therapist are also important. Although we did not detect their direct relationship with the effectiveness of the psychotherapy, the presence of techniques of interpreting and reporting, of activating the patient and of focusing on transference can be regarded as a method that allows patients to feel that the therapist is interested in their problems, that he/she wants to help that patient. The second model shows that the lack of interpreting the patient’s experience, of not informing him/her and not activating the patient is associated with a not good psychotherapeutic relationship, which is negatively related to the direct effectiveness of the psychotherapy.

In conclusion, the study revealed that many factors are important for direct effectiveness of the psychotherapy, but only the psychotherapeutic relationship is related to it directly. If the patient is to perceive a psychotherapeutic relationship as good, the psychotherapist should conduct specific (technical) activities which would enable the existence of such.

The results achieved in this study – through the application of a mathematical model of an empirical character – require further verification studies with other samples of patients.

References


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