This publication gives a comprehensive overview of psychological diagnostics in the health care sector. Various types of psychological tests play a central role in this book. They represent a unique contribution by psychologists to making diagnoses with medical practitioners and social workers.

The book consists of three parts. Part I provides an explanation of the psychologist’s way of thinking and methodology. Starting with the empirical cycle, Chapter 1 discusses the five basic questions of diagnostics, after which a range of quality aspects are addressed in Chapter 2. Part II examines the main diagnostic methods: interview, observation, indirect methods, intelligence tests, neuropsychological methods, personality tests and specific questionnaires. Subjects like the use of computers in diagnostics, ethical aspects and the reporting of diagnostics are subsequently addressed. Part II concludes with a discussion of the dynamic profile interpretation. To illustrate the theory of Parts I and II, Part III contains four case studies from a variety of fields in the health care sector.

Psychological diagnostics in health care is the translation of Psychologische diagnostiek in de gezondheidszorg (fourth edition) and is intended for students in the fields of psychology, (special needs) education, mental health education and for advanced students in applied psychology.

Editors Frans Luteijn and Dick Barelds have compiled contributions from 17 different experts on the topic of psychological diagnostics.
Psychological diagnostics in health care
Preface

Psychological diagnostics in health care was first published in 2005. The second edition, which was primarily an update, followed in 2008. The third edition appeared in 2013 and, in addition to being an update, it was also a partial revision. This fourth edition is an update.

The objective of this book has consistently remained the same: Psychological diagnostics in health care provides a description of the diagnostics of adults and the elderly that are carried out by psychologists in the broad-based sector of health care. The traditional Dutch word ‘diagnostiek’ (diagnostics) is still preferred to the Anglo-Saxon word ‘assessment’, for which a suitable Dutch equivalent still does not exist, but the words are synonyms of each other. As in previous editions of this book, the focus is on psychological tests, because they are the psychologist’s unique contribution to carrying out diagnostics in the context of other disciplines, such as medicine and social work.

The book consists of three parts. Part I provides an explanation of the psychologist’s thought and action process. Starting with the empirical cycle, Chapter 1 discusses the five basic questions of diagnostics, after which a range of quality aspects is addressed in Chapter 2. Part II examines the main diagnostic methods: the interview, observation, indirect methods, intelligence tests, neuropsychological methods, personality tests and specific questionnaires. The use of computers in diagnostics and ethical aspects and the reporting of diagnostics are subsequently addressed. This part concludes with a discussion on the dynamic profile interpretation. By way of illustrating the subject matter in Parts I and II, Part III contains four case studies from a variety of fields in the health care sector.

This book is aimed at several different target groups:

- Students of psychology, pedagogy, orthopedagogy and mental health education, especially in the form of course literature for diagnostics of adults.
- Graduates who are taking a post-doctoral training program.
- Practicing psychologists, pedagogues and orthopedagogues and those who want to refresh their knowledge.
- Persons and students from other disciplines who want to learn about the psychological diagnostics of adults in health care.

Frans Luteijn
Dick Barelds
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Part I
Fundamental aspects of diagnostics
The diagnostic process

1.1 Introduction

In contrast to treatment, clinical psychodiagnostics is an exclusive specialism of the clinical psychologist. For a long time, this was not a popular practice, because it was perceived as being a tedious, time-consuming pursuit that labeled people on the basis of unreliable projective techniques and lengthy questionnaires. The clinical psychologist tended to present himself as a therapist rather than as a diagnostician. For some time now, there has been renewed interest in diagnostic activities. It has been agreed that a thorough diagnosis of the client’s problems and complaints is a prerequisite for adequate care.

Analyzing problems, searching for their explanations and trying to solve these problems is human nature. In order to be able to speak of clinical psychodiagnostics, however, more is required. This is a professional activity that is based on three elements: theory development of the problems/complaints and problematic behavior, operationalization and its subsequent measurement, and the application of relevant diagnostic methods. The quality of these three elements is grounded in conceptual and empirical research (De Bruyn et al., 1995; Ter Laak, 2011). This means that hypotheses about behavior, cognition and emotion/motivation are formulated on the basis of a theory, and are operationalized, measured and tested using a step-by-step diagnostic process. This is a scientifically regulated thought to action process that results in responsible statements about the client’s behavior or problems. It includes specifications which may appear cumbersome for the practicing diagnostician in his day-to-day work; nevertheless, it offers a framework and systematic approach for the step-by-step analysis of complex diagnostic problems.

In this chapter, we will first explain the consecutive steps in the psychodiagnostic process. We will then outline the five basic questions that form the foundation for most of the questions that are posed by clients, referrers and diagnosticians. We will subsequently discuss the empirical cycle, which is the methodological foundation for the responsible practice of psychodiagnostics. We will describe the progression of the diagnostic process from application to report and, lastly, we will describe and comment on Diagnosis and Treatment Combinations (DTCs).
1.2 Steps in the diagnostic process

A clinical psychodiagnostic examination usually begins with the client’s referral to the diagnostician, but it may occasionally also begin with the client’s direct question to the diagnostician. The diagnostician analyzes both the client’s request for help and the referrer’s request. This need not be the same. For example, the client’s request for help may be that he wants to be cured of his compulsive behavior, while the referrer would like to know whether there is evidence of an obsessive-compulsive disorder. The referrer’s and client’s questions collectively form the starting point; in addition, the diagnostician also formulates the questions that arise during the first meeting with the client. For example, he may suspect that the problem behavior is actually a sign of depression. In the above example, the analysis results in three questions: (1) Is it an obsessive-compulsive disorder? (2) Which factors may have caused a possible disorder and what are the factors that perpetuate this disorder? And (3): which psychotherapy is appropriate for this client? On the basis of these questions, the diagnostician will construct a diagnostic scenario that contains a provisional theory about the client, which describes what the problems are and how they can be explained. Testing this theory requires five diagnostic measures: (1) Converting the provisional theory into concrete hypotheses. (2) Selecting a specific set of research tools, which can either support or reject the formulated hypotheses. (3) Making predictions about the results or outcomes from this set of tools, in order to give a clear indication as to when the hypotheses should be accepted or rejected. (4) Applying and processing instruments. And (5): on the basis of the results that have been obtained, giving reasons for why the hypotheses have either been accepted or rejected. This results in the diagnostic conclusion.

The diagnostic process may be schematically represented as follows (see Figure 1.1).
Figure 1.1 The diagnostic process
1.3 Five basic questions in clinical psychodiagnostics

There are five basic questions that form the basis for most of the questions that are posed by clients, referrers and diagnosticians. These pertain to:
1. Recognition: What are the problems; what works and what doesn’t?
2. Explanation: Why do certain problems exist and what perpetuates them?
3. Prediction: How will the client’s problems subsequently develop in the future?
4. Indication: How can the problems be resolved?
5. Evaluation: Have the problems been adequately resolved as a result of the intervention?

A part of the knowledge base of psychology is relevant to each of the basic questions. This ensures that the diagnostician can answer the questions in a scientific and professional manner.

1.3.1 Recognition

In order to obtain a better understanding of the client’s problem, the diagnostician identifies both the complaints and adequate behavior of the client and/or his environment. Recognition includes (a) inventory and description; (b) organization and categorization in dysfunctional behavior clusters or disorders; and (c) examination of the seriousness of the problem behavior (De Bruyn et al., 1995). Recognition may occur as a result of comparison to a predefined standard (criterion-oriented measurement), comparison to a representative comparison group (normative measurement) or as a result of comparison to the individual himself, e.g. to the individual at a previous point in time (ipsative measurement). The distinction between classification and diagnostic formulation (Van Yperen & Hirs, 1995) is also relevant in this context. In the case of classification, the clinical picture is assigned to a class of problems. This can be done according to an all-or-nothing principle or a more-or-less principle. Diagnostic formulation on the other hand focuses on the individual and his own unique clinical picture. Examples of classification are the DSM categories (all-or-nothing principle: the client is assigned to a category) and the dimensions of complaints and personality tests (more-or-less principle: the client is given a profile of scores for a number of dimensions). In the aforementioned example, we would then examine whether the client’s complaints are in accordance with the DSM-5 category ‘obsessive-compulsive disorder’ (all-or-nothing principle) or we would determine the score that measures the dimension obsessive-compulsive behavior (more-or-less principle) on a questionnaire. One example of diagnostic formulation is the holistic theory, such as that which is often used in behavioral therapy, in which functional, theoretically explicit relationships between interdependent problem behaviors and the context play a central role (Orlemans et al., 1995). For example, in addition to compulsive behavior, our
client also has obsessions and these are functionally identical, because they are both based on the very same type of anxiety known as anxious arousal. There is also evidence of a link between the compulsive behavior and marital problems when the relationship with the partner becomes distorted as a result of the complaints.

Apart from the clinical practice’s preference for making a psychiatric diagnosis on the basis of the DSM categories, an approach is advocated here in which recognition not only leads to categorizing problem behavior in terms of disorders, but also to describing the individual on the basis of specific characteristics, dimensions and specific modes of functioning. Both approaches have their advantages and disadvantages. Classification leads to ‘labeling’, which is limited and often forms the basis for establishing co-morbidity, but it does facilitate communication between experts. Diagnostic formulation allows for the uniqueness of the individual, based on a description of the client and its context. This helps the therapy planning, but there is an occasional lack of empirical support. Diagnostic formulation usually involves simultaneous recognition and explanation.

1.3.2 Explanation

An explanation answers the question of why there is a problem or a behavioral problem. It includes: (1) the main problem or problem component; (2) the conditions that explain the problem’s occurrence; and (3) the causal relationship between points 1 and 2.

Explanations may be classified according to:
1. The locus, i.e. the person or the situation. In the case of person-oriented explanations, the explanatory factor lies in the person himself. This emerges when the behavior is viewed separately from the context. In the event of a well-known context, the explanation may be situation-oriented. The explanatory events may (a) precede the behavior that is to be explained or (b) follow it.
2. The nature of control. We can talk about cause, i.e. determined by previous conditions, and also talk about reason, i.e. determined by a voluntary or intentional choice. Causes explain behavior while reasons make behavior understandable. Here’s an example: if someone falls out of a tree while they’re picking cherries, then the fall is caused by gravity; acting recklessly while picking cherries is the reason. Cause and reason do not constitute a dichotomy, but a continuum. For example, if a person’s behavior can be explained on the basis of ‘intense passion’, this can mean that this is what consequently determines the behavior (cause), but also that this explanatory factor gives meaning to the behavior (reason).
3. Synchronous and diachronous explanatory conditions. Synchronous explanatory conditions coincide with the behavior that is to be explained at the time; diachronous explanatory conditions, however, precede this behavior. For example, in psychoanalytic diagnostics the structural explanation (e.g. ego weakness or borderline personality organization) is synchronous and the psychogenic explanation (e.g. oral fixation or problems during the separation-individuation phase) is diachronous.

4. Induced and persistent conditions. Induced conditions give rise to a behavioral problem while persistent conditions perpetuate the behavioral problem.

Four possible types of explanation for problem behavior are given for these conditions and it is important that the diagnostician has knowledge of these options, so that he continues to make allowances for more than one type of explanation. Furthermore, some of the explanations are better suited to specific goals of diagnostics and therapy than others. From a practical point of view, when treating a problem, it is best to search for factors in the current situation that perpetuate the problem, because we can exert an influence on these. When formulating an explanatory hypothesis, we make use of psychological theories and constructs. Despite the fact that there are additional explanatory theories for a particular behavioral problem, some diagnosticians have the tendency to work from one specific theory in their explanation. This influences and limits the diagnostic process and predominantly influences and limits the indication.

Some professionals strive for a generally accepted, central theory. This theory should, together with the biological influences, simultaneously identify the situational influences, personal characteristics, development and systemic patterns. Various manuals aim to achieve this and select an eclectic theory, in which different theories and concepts complement each other and reveal each other’s limitations. Examples of these can be found in Vandereycken et al. (1990) and Everaerd (1993).

1.3.3 Prediction

Prediction involves making a statement about the problem behavior in the future. It is a chance statement, e.g. the chance of fully resuming one’s work duties after a head trauma, the chance of the client being a danger to other people, the chance of suicide or the chances of a certain treatment’s success. This chance plays a part in determining the treatment proposal, e.g. admission or ambulant treatment, short-term or long-term treatment, or imposing restrictive conditions. Prediction pertains to a relation between a predictor and a criterion. The predictor is the present behavior and the criterion is the future behavior. The
relationship may be known on the basis of examination, but it may occasionally need to be determined for specific relationships between the client’s present and future behavior. In actual research, relations (correlations) are never perfect and we can consequently only determine the chance that behaviors will collectively occur in a particular population (and not in a certain client). For this reason, Maris (1992) prefers the term ‘risk assessment’ to ‘predicting’.

Even though the empirical evidence is ineffective, the diagnostician may occasionally need to give an answer to a practical question. In this case, the diagnostician can make use of a model or clinical prediction, in which he decides which information he will include in the prediction and how he will intuitively integrate it. For this purpose, it is always helpful to include as many research results as possible, especially meta-analyses. For example, it appears that the accuracy of the clinical prediction of a client’s suicide risk increases when the client’s psychological pain has been estimated and his pain tolerance threshold has been determined (Maltsberger, 1992). Ultimately, in this case it is true that two heads (and preferably more than that) are better than one. In these circumstances, intervision is of great importance.

In the case of prediction, the margins of error (standard errors of an estimation) are often so large that the high expectations of legal and other societal contexts cannot be met. For example, when it comes to procedures for allocating guardianship (custody) during a divorce, provisional release or determining whether permanent damage has been sustained following a trauma, it is demanded that predictions are made with the greatest possible degree of certainty. One disadvantage of these kinds of predictions, however, is that they may be anti-therapeutic, because they document a situation without taking account of the possibility of future changes.

1.3.4 Indication

The indication focuses on the question of whether the client requires treatment and, if so, which caregiver and assistance are the most suitable for this particular client and problem. The indication is characteristic of an orientation, a search process that involves finding which treatment and which caregiver are most compatible with the client’s complaints, problems, traits and preferences. It does not necessarily involve selection, i.e. whether a certain type of assistance may or may not be possible and appropriate. Rather, this last task is carried out by the therapist. Before we can proceed to the indication, the steps for explanation and prediction must be completed. There are, however, three additional elements:

1. Knowledge of treatments and therapists. The eligibility requirements for treatments and therapists are not clear, not least because many treatments are not clearly defined. Exceptions are ambulant treatment vs. residential
treatment, psychotherapeutic treatment vs. pharmacological treatment and individual treatment vs. group therapeutic treatment (Vertommen & Van Audenhove, 1986).

2. Knowledge of the relative usefulness of treatments. There are many outcome studies, but these are often not specific enough to support certain therapeutic interventions and types of clients. The work done by Vervaeke and Emmelkamp (1998) is an exception and provides an overview of outcome studies that pertain to protocol-based therapies such as those for anxiety and mood disorders. Meta-analyses of the effective components of different therapies can be helpful when selecting a treatment. What’s more, much is known about the effect sizes of a variety of treatments: these vary considerably and are usually modest (less than .70 SD; Cuijpers et al., 2008).

3. Knowledge of the client’s acceptance of the indication. There is a chance that a client will not follow a recommendation if the proposed treatment deviates from his preference. There is an indication strategy that has been developed which takes the client’s preferences into account (Vertommen & Van Audenhove, 1986). This strategy contains four principles: (1) the client’s perspective is examined and explicates; (2) the diagnostician provides the client with information about the courses of treatment, processes, and therapists; (3) the client’s expectations and preferences are compared to those that the diagnostician deems to be suitable and useful and, during a mutual consultation, a number of possible treatments, which are acceptable to both parties, are formulated; and (4) the client selects a therapist and a treatment.

1.3.5 Evaluation

Evaluation of the assertions about diagnosis and/or intervention takes place on the basis of both the progress of the therapeutic process and the results of the treatment. This establishes (1) whether the therapy took account of the diagnosis and treatment proposal – if this was not the case, the diagnostic process was unnecessary – and (2) whether the process and the treatment have brought about a change in the client’s behavior and experience. This can be carried out in two ways. We can establish whether the complaints or problems decreased to the desired degree without discussing whether the changes were brought about by the therapy, or we can prove that the changes were caused by the therapy, e.g. with the help of n=1 designs, which have largely been developed within behavioral therapy (Orlemans et al., 1995).

1.4 The diagnostic cycle

One way to regulate and discipline the diagnostic process is to structure it according to the empirical cycle of scientific research (De Groot, 1961, 1994).
This cycle is a model for answering questions in a scientifically justified manner. It consists of observation, induction, deduction, testing and evaluation.

1. Observation involves collecting and classifying empirical materials, which provide the basis for forming thoughts about the creation and persistence of problem behavior.
2. Induction includes the formulation of theory and hypotheses about the behavior.
3. During the deduction phase, testable predictions are derived from these hypotheses.
4. During the testing phase, new materials are used to determine whether the predictions are correct or incorrect.
5. The aforementioned finally results in the evaluation.

On the face of it, De Groot’s empirical cycle is a basic diagram for scientific research and not for psychodiagnostic practice. That is why the five stages of the empirical cycle can only be found in rudimentary form in psychodiagnostic practice (Kooreman, 2006). The original dynamics of clinical diagnostic research have primarily been recognized and worked out in greater detail in the Netherlands and Belgium (Van Strien, 1984, 1986; Hofstee, 1990; Carlier & Schoorl, 1990; De Bruyn, 1992b; Kievit & Tak, 1992; Pameijer, 1993; Vertommen, 1996; Westenberg & Koele, 1993). This research is described in section 1.5.

1.5 The diagnostic process: from the application to the report

1.5.1 Application

As already mentioned, the referrer’s request does not necessarily coincide with the client’s request for help. The latter usually requires a solution to his problem, while the referrer actually needs recognition, an explanation, a prediction or a recommendation with regard to the treatment. The diagnostician’s first task is to analyze and clarify the request and the request for help. He will also consult the file data.

An analysis of the request results in (1) information about the referrer on the one hand and (2) on the other hand it results in details about the type and content of the request.

1. The information about the referrer includes several elements. (a) In the first place, it is important to understand the referrer’s frame of reference. This framework contains his vision of the client’s behavior and performance, which has also been formed by his education and experience. The diagnostician should be somewhat familiar with the models and concepts that are employed by the professionals from various disciplines. (b) In addition, the analysis of the request results in clarification of the relationship between the diagnostician and the referrer. Sometimes the referrer might be a member
of a team, department or clinic to which the diagnostician also belongs, and sometimes he may not, e.g. in the case of an extramural request. Beyond this, information about the nature of the setting occasionally provides insight into the content and seriousness of the problems and information on the purpose of the examination (compare, for example, residential and ambulant settings). Information about the setting also gives an indication of data usage (compare, for example, data usage with regard to the treatment and data usage with regard to legal decision making). (c) In a number of cases, it is important to make a distinction between the referrer in name and the actual referrer. The former requires an examination to be carried out, while the latter takes the initiative (compare, for example, expertise examination with the psychiatrist as the referrer in name and a court or insurance company as the actual referrer). (d) Finally, referrers differ from each other in terms of the nature and extent of the powers which are available to them. For example, a psychiatrist can decide to which department the client will be consigned. The person responsible for the intake at a consulting service, on the other hand, may only act in an advisory capacity. He may advise parents in selecting a school for their child or recommend a psychiatric consultation to a client for his drug treatment.

2. Analysis of the request also aims to understand the type and content of the request. (a) The referrer's request may adhere to an open-ended format or closed format. In the first case, the referrer will not formulate any hypotheses with regard to the problem; in the second case, he will. (b) The contents of a request are partially connected to the setting from which the request originates. In ambulant services and primary care centers, the requests are usually quite specific (for example: Can this client's complaints be contextualized as a phobia or rather as relational or sexual problems?). However, residential psychiatric centers often focus on more complex problems, such as diagnostic categorization and exploring the underlying factors of a disorder. (c) Requests can be classified according to the five basic questions mentioned above. To this end, these basic questions may also exist as a combination, for example: What is going on, how can I understand it and what should be done?

3. The analysis is supported by (a) what the referrer already knows about the client: information on the client's functioning helps to examine the seriousness of the problems and to ascertain whether or not the referrer and the client agree with each other about the client's functioning. (b) The analysis ultimately helps to determine whether or not the client presented himself to the referrer and whether he consents to the examination.

*Analysis of the request* includes exploration of the client's mindset. During the first meeting, the client's attitude to the examination is evaluated: Is the client there on his own initiative or not, does he consent to a diagnostic examination? The content of his problem is also determined: Does he have a well-defined request for help, what is the main problem domain (e.g. relationships,
self-perception or functioning at home, at school or at work)? The client is questioned about his complaints, how they arose, how they have developed and the factors that have consequently played a role. Lastly, the client is asked who can best help him and what the result of an intervention should be. This exploration should preferably be carried out as openly as possible by means of an interview, but broadband screening tools may also be used. For example, in the case of adults this would be Multimodale Anamnese voor Psychotherapie (MAP; Kwee & Roborgh, 1990) and in the case of children, it would be the Child Behavior Checklist (CBCL; Verhulst et al., 1990).

When analyzing the application, the diagnostician will use the file data, such as reports from previous psychodiagnostic or medical examinations, and information from such sources as school, work, family and institutions (such as the court).

1.5.2 The diagnostician’s reflections

The analysis of the application is followed by a reflection phase, in which due weight is given to each of the various pieces of information. This will partly be influenced by the diagnostician’s character. After all, he is not going to be entirely impartial towards the requester and the client. This requires insight into his position and professional and task-oriented practices. Research into clinical judgments has shown that with respect to predictions in samples and in individuals, attaching different degrees of importance to sources of information rarely leads to better predictions and that adding a large volume of information does not improve the prediction either (Garb, 1998). The diagnostician should be aware of his potential biases in both general clinical judgment and towards clients. There may be bias in relation to the applicant, e.g. regarding whether or not the diagnostician is familiar with a specific type of problem, through which it may possibly be over-diagnosed or under-diagnosed or the diagnostician’s preference for a specific type of research tool. The diagnostician also estimates the extent of his own knowledge of a problem and, on this basis, may refer the client to a colleague if necessary. In addition, the reflections involve any new questions about the problem that may have occurred to the diagnostician. During this reflection phase, the diagnostician will also be able to benefit from using the literature and his own knowledge.

1.5.3 Diagnostic scenario

In a diagnostic scenario, the diagnostician organizes all of the requester’s and client’s questions from the application phase, all of the questions that have occurred to him and his knowledge of the problem. On the basis of this
information, he proposes an initial, tentative theory about the client’s problematic behavior. One example of such a tentative theory might be: I believe that the client is suffering from a mild depression, which has been induced by her partner’s psychological absence and her only daughter leaving home. The depression is perpetuated by the fact that the client has a limited range of coping skills.

Using this scenario, it is possible to determine which information should be assigned to the recognition question (depression) and what should be examined as the explanation (the predisposing and perpetuating factors). Rather than including all of the client’s problems in the recognition section, it is important that the problems listed here are limited to those at the end of the chain of problems and for which the client has sought a consultation.

In the diagnostic examination, recognition precedes explanation and recognition and explanation both precede prediction and indication. In theory, the diagnostician will answer the basic questions in sequence and, in doing so, will work through the five steps in the diagnostic cycle. In practice, all of the basic questions are often examined simultaneously. Groenier et al. (2008, 2011) conducted research into implementing the entire diagnostic scenario and found, among other things, that important steps, such as formulating hypotheses, are sometimes skipped. It should be clear that not all of the basic questions need to be examined in every diagnostic examination. The quantity and type of basic questions to be addressed depend on the questions that were discussed during the application phase. A psychodiagnostician may therefore restrict himself to a recognition question, e.g. if the requester is only interested in determining a child’s IQ, in order to make a decision about whether or not to place the child in an institution. In other cases, it is only the explanation question that matters, e.g. when the diagnosis has already been established (for example: an internist who has requested a diagnostic examination, because he wants to know which factors can explain an adolescent’s anorexia nervosa disorder). However, most requests contain three basic questions: recognition, explanation and indication.

1.5.4 The diagnostic examination

1. Hypothesis formulation

The diagnostician formulates a number of hypotheses based on the diagnostic scenario. De Groot (1961, 1994) defines a hypothesis as an assumption about a correlation in reality, which is formulated in such a way that concrete, verifiable predictions may be derived from it. The diagnostician converts the tentative theory to hypotheses, i.e. assumptions can be tested. The hypotheses are formulated in such a way, that the relationship between the hypotheses is clear. In the context of the recognition question, the hypotheses center on the presence of psychopathology or a differential diagnosis. This may either be in terms
of DSM categories or in terms of a number of dimensions in either behavioral clusters or a behavioral profile. In the context of the explanation question, the hypotheses require a list of explanatory factors and their predisposing or perpetuating roles. The diagnostician determines the order in which he wants to examine the factors and tries to determine whether the explanatory factor contributes significantly to the problem (i.e. the problem is invariably present whenever the factor is present and the problem is only ever present when the factor is present). Predictive hypotheses are based on empirical knowledge of successful predictors. In the context of the indication question, hypotheses are assumptions about which treatment and which therapist(s) are best suited to a client with a particular problem. These hypotheses are founded on the conclusions that have been drawn from recognition, explanation and prediction, but are also based on (a) how the client formulates his problem, how he views his complaints and what the disease attributes are and on (b) which type of help he expects to receive and the manner in which he expects to receive it and on (c) what he hopes to achieve with the treatment. Van Mechelen and Vertommen (1988) refer to a, b and c as the client’s theory of illness, theory of healing and theory of health, respectively. Here is an example: the expert’s hypothesis is that the best therapy for a client is couples’ therapy with a focus on communication. This is based on the fact that the client is depressed but has good introspective capabilities (recognition) and that there is a rigid complementary interaction, in which the client repeatedly assumes the subordinate position (explanation). But an additional requirement is that the client wishes to improve communication between her and her husband, if the recommendation for indication is to have any chance of success.

2. The selection of examination tools
Theory development and operationalization of the problem behavior is followed by the search for appropriate examination tools. The hypotheses must lead to testable statements about a person’s behavior or experience. The selection of examination tools is linked to this. For example, the hypothesis that a client is depressed can be tested using the score for the depression subscale of the SCL-90 (see Chapter 9). The selection of examination tools is determined by the nature of the question, the psychometric quality of the instruments and by the efficiency considerations such as the duration of the examination and the scoring convenience. Suitable instruments or methods do not exist for all of the questions and the diagnostician cannot fully convert his theory into testable statements. This means that he will have to rely on an approach.

For the purpose of answering the recognition question, the diagnostician has access to objective instruments that are simultaneously tailored to more disorders or to specific psychopathological profiles (see Evers et al., 2000; De Zeeuw, 1981). In addition to these, observations, anamnestic data and information from informants may also be classified as examination tools. In the context of the explanation question, the hypotheses in clinical practice are tested differently to the hypotheses in experimental research.
The examination tools for the explanation question are instruments that focus on explanatory factors, such as individual differences in intelligence, cognitive abilities, the personality characteristics and structural characteristics of the person, and context factors, such as family functioning, situational characteristics and socio-economic class. The prediction question can be answered using instruments that have predictive validity. For the purpose of answering indication questions from the client’s perspective, an additional questionnaire can be used (for example: see Vertommen et al., 1989).

3. Formulation of testable predictions

Once the examination tools have been selected, the criteria, against which the client will be examined, will need to be established. The criterion may be a specified category, such as those defined in the DSM-5, or a score or scores for one or more dimensions. For example, if we wanted to examine an explanatory factor such as a problematic child-rearing situation, and we had decided during the selection of the set of tools that we would do this by means of a client interview, we would need to determine beforehand on the basis of which information we wanted to establish whether there actually was a problematic child-rearing situation. If we did not do this, it would be quite likely that one element or another would invariably be found during the interview, which could be misinterpreted for the purpose of confirming the hypothesis of a problematic child-rearing situation. Preparation of the examination criteria may appear to be cumbersome and artificial, but it is and remains the only way to control the diagnostician’s impulse to interpret everything and to avoid judgment errors, such as confirmation bias. That is not to say that the examination should be carried out so rigidly that it would be impossible to change the criteria during the examination. This, however, does not exempt the diagnostician of his duty to speak out in advance. Obviously, it does not deprive him of the opportunity to retrospectively confirm hypotheses that were not consistent with the formulated predictions. He would consequently be obliged to provide sound reasons for this retrospective insight.

4. Administration and scoring

The administration and scoring of diagnostic tools provide both qualitative and quantitative information. The test results are interpreted with the help of norm tables. During the administration, the diagnostician collects a great deal of observational data. Amongst other things, these give an idea of how a client performs the task and they also show whether an appropriate relationship has been established with the diagnostician. During the processing of the data, it is important that these are first analyzed for each test, irrespective of the proposed hypotheses, so that none of the materials are lost. During the analysis for each test, it is possible that new hypotheses will arise. It is only in the second instance that the findings will be compared with the preestablished examination criteria for the proposed hypotheses.
5. Argumentation
In the argumentation, the administration and scoring results are linked back to the hypotheses and predictions. The diagnostician takes into account the psychometric quality of the tools and the specific nature of the sources and consequently assigns the appropriate weight to each of them. For example, the teacher’s judgment of a child’s scholastic ability may be assigned more weight than the parents’ judgment, while the reverse may apply to affective problems. The hypothesis contains a firm statement in the form of a testable prediction. If the results match the prediction, the hypothesis will not be rejected. If they do not clearly concur, the hypothesis may be retained. In the case of an obvious contradiction, the hypothesis will be rejected. The decision is never random, but is always substantiated. As previously mentioned, new hypotheses may arise and new examination criteria may be formed on the basis of the results. The diagnostician uses both supporting and non-supporting materials to test his hypotheses. In other words, he reaches a conclusion by weighing up the ‘pros’ and ‘cons’.
Finally, the diagnostician tries to reach a conclusive outcome, into which as many results as possible have been integrated. Elements that were not included in the hypotheses, but were discovered during the examination, may also be incorporated into this outcome. This may give rise to either a new theory or another theory that integrates the data more effectively. In the latter case, this would theoretically involve starting a new diagnostic cycle. In practice, this is not always possible and these new insights would be adhered to in the form of a new theory (that would need to be substantiated more strongly than the tentative theory in the diagnostic scenario).

6. Report
The report is for the referrer and contains the results of the diagnostic examination. Once again, the five steps in the diagnostic process are used in the structure of the report. Writing a good diagnostic report requires a great deal of time. Together, the report and the verbal explanation form the diagnostician’s masterpiece, which will be evaluated by his colleagues and requesters. This is also the document on which decisions are firmly based.
An initial aim of the report is to substantiate the conclusions from the examination. Psychological questions can rarely be answered with a simple ‘yes’ or ‘no’. This is why reports often contain a ‘well-defined answer’, i.e. an answer that includes a range of conditions for which the statements that have been made are valid (Snijders, 1965).
In the report, a distinction is made between facts, interpretation of the facts and conclusions. Furthermore, the sources that formed the basis for the statements are mentioned and the quality of these sources is also weighted. For example, a statement that is based on a validated measurement can be made with more certainty than one that is based on the details from an interview. Acknowledgment of sources may also bring to light discrepancies between self-reporting
and judgments made by third parties, and discrepancies between different measurements.

The report may contain specific test information, e.g. increased scores on certain scales or subscales, if this serves to provide data that will need to be discussed at a later date. This information is included in a separate section of the report, so that it can be passed over by the reader who is only interested in reading the reply to the question.

The second aim of the report pertains to effective communication about the client. This means that the requester should be able to read the information in the way that the diagnostician intended. Kooreman (1997) points out that report writers are quick to assume that they are easily understood. In order to prevent misunderstandings, a clear, transparent and structured report is required at the very least.

The report for the client differs from the report for the referrer. Reporting to the client is often done verbally. During this conversation, it is helpful to accommodate the client’s experience and to acquaint him with the diagnostician’s conceptual framework. He will also have the opportunity to provide extra information and, if necessary, to make any modifications if there are grounds to do so. In the past, there was some opposition to informing the client and to speaking to him. It was alleged that he did not understand the technical wording, that he would be unnecessarily discouraged and would interpret the information incorrectly. It is now believed that the client is entitled to both the findings from the examination and to having access to his file. He has the right to improve his report, provide extra information or remove certain parts, if there is reason to do so. Nowadays, it is ethically unacceptable to conceal the information contained in the diagnostic examination from the client (Luteijn, 1990).

Furthermore, there is a therapeutic reason to inform the client. It is important that the information has been tailored to the questions and needs of the client (see Vertommen, 1996). The information should be provided in such a way that it is understood by the client, and so that the information is tailored to his experience and he is able to acquaint himself with the diagnostician’s reasoning. When reporting, the diagnostician will try to connect the findings with what the client can consequently do to resolve his problem or to relieve it. This can be motivating for the client.

1.6 Diagnosis and Treatment Combinations (DTCs)

DTCs are increasingly being used within health care. The idea behind a DTC is that once a patient has been efficiently diagnosed, the protocol-based treatment that then takes place is preferably evidence-based and clearly fits the diagnosis that has been made. Because the treatment protocol dictates how long the treatment may take and the diagnostics are also standardized to the greatest
possible extent, standard rates exist for DTCs. The aim of both insurance companies and the government is that this will allow the work to be carried out in a more efficient and cost-effective manner.

DTCs are also increasingly being used within mental health care, for example at PsyQ. On the basis of their main complaint/problem, clients are referred to the relevant department when they arrive. Within PsyQ, there are the following nine departments: ADHD, anxiety disorders, depression, eating disorders and obesity, personality problems, somatics and the psyche, relationships and the psyche, psychotrauma and sexology. For example, if a client’s main complaint is an eating disorder, he will be referred to the eating disorders and obesity department. Once there, staff will try to determine whether the client does indeed have an eating disorder (for example, by checking to see whether the DSM criteria for a certain eating disorder have been met). If the diagnosis confirms the original complaint, the treatment protocol for the disorder in question will be carried out. If the diagnosis does not confirm the original complaint, the client may possibly be referred to another department; in the event that the client’s complaints/problems cannot be treated by another department, the client will be referred back to the referrer, which in most cases is the client’s GP. If the client has been successfully treated, this will signal the end of the treatment and the client will subsequently be referred back to the referrer. If the treatment has been unsuccessful or has yielded insufficient results, the client may either be referred to another department or referred back to the referrer.

For this procedure, the following, critical comments should be noted:

a. There are many clients with more than one complaint/problem who feel that all of these are equally serious, which may consequently make choosing a department occasionally difficult and even arbitrary.

b. Some clients do not have clearly defined complaints/problems, but may have the feeling that their life is not going well. In this case, an urgent referral will also be problematic.

c. Within departments that address certain complaints/problems, there is a strong focus on the reported complaints/problems. Due to this, there is a danger that other, even more important existing disorders may be overlooked.

d. DTCs assume an interaction between a specific diagnosis and a type of treatment. This requires interaction research and this is still quite scarce.

e. When working with DTCs, there is often insufficient time to carry out a comprehensive diagnostic examination of the causes of the complaint(s)/problem(s) (see also Witteman et al., 2012). For example, investigating which social, psychological and somatic variables have caused the complaint(s)/problem(s) or have perpetuated them requires a comprehensive examination. It is only when there is clarification about this that treatment can be administered in a meaningful and successful manner (for further information, see Section 1.3.2).
1.7 Conclusion

The period of clinical diagnostics that was marked by merely administering tests and labeling patients has clearly come to an end. Clinical diagnostics consists of sound and validated judgments, which are based on the theory that has been formulated by the diagnostician following a thorough analysis of the request and extensive examination of the client’s complaints and situation. The articulated process that has been described aims to promote the type of professionalism that is a prerequisite for helping clients in an adequate and efficient manner. Despite the many guidelines, the creativity that is required of the diagnostician makes clinical diagnostics an intriguing undertaking that not only sharpens the diagnostician’s mind but also takes the client seriously and offers him what he is entitled to, namely a sound judgment.

Literature


The diagnostic process


This publication gives a comprehensive overview of psychological diagnostics in the health care sector. Various types of psychological tests play a central role in this book. They represent a unique contribution by psychologists to making diagnoses with medical practitioners and social workers.

The book consists of three parts. Part I provides an explanation of the psychologist’s way of thinking and methodology. Starting with the empirical cycle, Chapter 1 discusses the five basic questions of diagnostics, after which a range of quality aspects are addressed in Chapter 2. Part II examines the main diagnostic methods: interview, observation, indirect methods, intelligence tests, neuropsychological methods, personality tests and specific questionnaires. Subjects like the use of computers in diagnostics, ethical aspects and the reporting of diagnostics are subsequently addressed. Part II concludes with a discussion of the dynamic profile interpretation. To illustrate the theory of Parts I and II, Part III contains four case studies from a variety of fields in the health care sector.

Psychological diagnostics in health care is the translation of Psychologische diagnostiek in de gezondheidszorg (fourth edition) and is intended for students in the fields of psychology, (special needs) education, mental health education and for advanced students in applied psychology.

Editors Frans Luteijn and Dick Barelds have compiled contributions from 17 different experts on the topic of psychological diagnostics.