Assessing Progress in Mastery of Counseling Communication Skills

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Assessing Progress in Mastery of Counseling Communication Skills

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Chapter 1

Introduction

During the last century the attention paid in higher education to the development of professional skills has progressively increased. In the first half of the last century the term 'skill' mainly referred to motor or technical actions, for instance driving a car or operating a machine (Murphy, Murphy & Newcomb, 1937). However, during the second half of the last century this term also came into vogue for describing social interactions between humans (Argyle, 1981). Social skills can be defined as "useful distinctive behavior components for social interaction, which are in the user's repertoire, a repertoire from which the user can choose" (Lang & Van der Molen, 2004, p. 38). These skills cover a broad scale of interpersonal behavior, for instance criticizing, speaking in public or guiding a group discussion. Special examples of social skills are communication skills. These skills are intended to deal adequately with professional conversations, for instance a doctor interviewing a patient or a psychologist counseling a client. This dissertation focuses on the training of counseling communication skills for psychology students.

Many psychologists have to be able to perform an interview with a client or a patient. Therefore, many psychology curricula intend to train their students in communication skills. Training programs in communication skills often are systematic and structured, aimed at enhancement of knowledge concerning communication skills and models and extension of the behavioral repertoire of the trainees (e.g. Ivey, 1971; Ivey & Authier, 1978; Lang & Van der Molen, 2004; Schönrock-Adema, 2002). Meta-analyses show that this structured way of training communication skills is effective (Baker & Daniels, 1989; Baker, Daniels & Greeley, 1990; Daniels, 2003; Van der Molen, Smit, Hommes & Lang, 1995). Many of these analyses have focused on training programs in so-called basic communication skills (See Appendix for definitions of these skills). According to Lang and Van der Molen (2004) the function of these basic communication skills is to clarify the clients' problem. Basic counseling communication skills are often taught in the first or second year of a psychology curriculum. Next to basic counseling communication skills, Lang and Van der Molen (2004) and Egan (1975, 1994) distinguish advanced counseling communication skills (See Appendix for definitions of these skills). The function of these advanced skills is to help the client gain new insights in his or her situation. These advanced skills should be taught in consecutive years of a curriculum after a training in basic communication skills. Both the basic communication skills and the advanced communication skills fit within the helping model developed by Egan (1975, 1994). This model

consists of three stages: (1) Problem clarification, (2) Gaining new insights and (3) Strategies for treatment (Egan, 1975, 1994; Lang & van der Molen, 2004). Although some studies have investigated the effectiveness of teaching advanced counseling communication skills (e.g. Parker, 1972; Shea, 1975; Smit, Kuipers & Te Nijenhuis, 1992; Van der Hoek, Houtman, Kooi & Van der Molen, 1988), to our knowledge no research is available concerning the progress of students in acquiring both the basic and advanced counseling communication skills. This study is the first that investigates the progress of trainees in the mastery of basic as well as advanced counseling communication skills. Therefore, a new instrument was developed for assessing the progress in basic and advanced counseling communication skills.

Assessment of Communication Skills

A widely used model for the assessment of skills is the framework for clinical competence developed by Miller (1990). Miller's model distinguishes four hierarchical layers of competence: Knows (knowledge), Knows How (Competence), Shows How (Performance) and Does (action). The first layer, knowledge, is required to carry out professional tasks effectively. The second layer, competence, is required to apply knowledge in concrete situations. Performance, the third layer, is the ability to use this knowledge to perform concrete actions. Finally, action refers to what a professional does during day-to-day action (Miller, 1990).

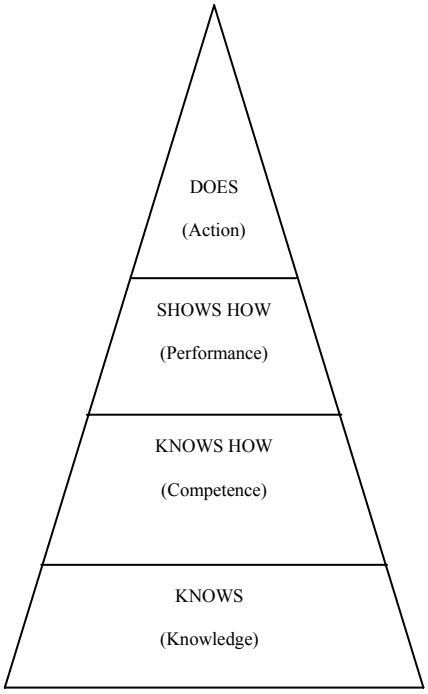

Figure 1. **Framework for clinical assessment (Miller, 1990, p. S63)**

There is an abundance of research concerning the assessment of communication skills (e.g. Bellack & Hersen, 1979, 1988; Bögels, 1994; Miller, 1990; Smit, 1995; Smit & Van der Molen, 1996a,b,c; Vermeulen, 1993; Vu & Barrows, 1994). In counseling

communication skill programs the assessment of the trainees is often directed at the level of knowledge, the first layer of Millers' model (1990), for instance a multiple-choice test about the literature accompanying the training in communication skills (Smit & Van der Molen, 1996a,b,c). To gain more insight in other types of assessing counseling communication skills Smit and Van der Molen (1996a,b,c) evaluated, apart from traditional paper-and-pencil tests, two other assessment methods: simulations and video tests. In a simulation the trainee has to perform an interview with a client played by a trained actor. Independent raters judge the trainees' performance. A video test consists of small video clips of one or two minutes. Each video clip shows a client speaking directly into the camera, simulating that he or she is speaking to the trainee. After each video clip the trainee has to demonstrate his or her mastery of the different counseling communication skills. For example, they have to show their mas-tery of the skill 'reflection of feeling' by writing down literally what they would say when they would apply this skill. The authors investigated the reliability, validity and efficiency of the application of the different methods. Their conclusions are summarized in Table 1.

Paper-and-pencil Test

Table 1 shows that the paper-and-pencil test is the most efficient of the three methods in terms of application of the test. Students can take the test at the same time and judging the student's answers takes little time, especially if the test is multiple-choice. The reliability of this kind of tests is good. However, the validity of the paper-and-pencil test appeared to be sufficient to weak. Paper-and-pencil tests seem to be sufficient in assessing the knowledge goal of the training programs, the first layer in Miller's framework. However, they are weak in assessing the behavioral component of the skills.

Role-play Simulations

As for the assessment of the behavioral goal of communication skill training programs, simulations in role-plays (the third layer of performance in the model of Miller) have a good validity. However, the efficiency of such tests is unsatisfactory and their reliability is weak. Simulations are time consuming because trainees can only perform them individually and because each trainee's behavior has to be assessed

Table 1

Quality of Methods for the Assessment of Communication Skills in terms of good (g), sufficient (s), weak (w) and unsatisfactory (u)

	Efficiency	Reliability	Validity
Paper-and-pencil test	g	g	s/w
Simulation	u	w	g
Video test	s	g	s

(Based on Smit & Van der Molen, 1996b, p. 553)

separately by trained assessors. The weak reliability of simulations is caused by the content specificity of this method (Bögels, 1994; Spitzberg & Cupach, 1989; Vu & Barrows, 1994). This means that the trainees' performance on one simulation cannot be generalized to other situations because the simulation consists of one case (client or patient). Several simulations would have to be administered in order to obtain generalizable scores.

Video Test

The video test (an instrument at the second layer of performance in the model of Miller), has a good reliability, whereas the efficiency and validity are considered to be sufficient. A disadvantage of the video test is that trainees cannot show how they would perform in a face-to-face encounter with a client. Also the non-verbal part of such an encounter cannot be assessed with a video test. However, by literally writing down what they would say to a client, trainees show their verbal ability in applying the counseling communication skills. Furthermore, the video test consists of a large number of items; each item represents a counseling situation in which the counseling communication skills should be applied. Therefore, the scores on the video test have a better generalizability than scores on the role play simulation. Another advantage of the video test is that all trainees can take this test at the same time.

Based on the findings of Smit and Van der Molen (1996a,b,c) it was decided to develop a video test to assess the progress of trainees in counseling communication skills. The project for developing and evaluating this test was labeled:

'The Counseling Communication Skills Progress Test, the development and evaluation of a new instrument for the assessment of the mastery of counseling communication skills'.

Context of the Project

The present studies were conducted at a comparatively new psychology curriculum at the Erasmus University Rotterdam in The Netherlands. This four-year curriculum provides a broad basic education in psychology and offers the students the opportunity to acquire the psychological knowledge and competence necessary for carrying out a number of different psychological professions. Since students are prepared for psychological practice, there is a certain emphasis on applied psychology in this curriculum. Therefore, besides the acquisition of theoretical knowledge much attention is paid to the acquisition of professional skills. These professional skills can be categorized in seven clusters: (1) learning skills, (2) communication skills, (3) diagnostic skills, (4) intervention skills, (5) research skills, (6) writing skills and (7) computer-related skills. This study concentrates on the acquisition and assessment of counseling communication skills (cluster 2).

Objectives of the Project

The first objective of this project is to develop a reliable and valid test for the assessment of the progress in acquiring counseling communication skills. It was decided to develop this counseling communication skills progress test as a video test. This test had to cover both the basic counseling communication and the advanced counseling communication skills. In the first two years of the psychology curriculum under attention two consecutive training programs aim at the acquisition of counseling communication skills. The first year contains a course in basic counseling communication skills. The second year contains a course in advanced counseling communication skills. These two courses intend to enlarge the knowledge and insight with regard to professional counseling on one hand and to extend the repertoire of behavioral skills of the students on the other. To realize these goals, these training programs are based on the principles of Bandura's social learning theory (Bandura, 1977, 1986). Based on these principles, the microtraining or microcounseling method for the acquisition of counseling communication skills has been developed (Ivey, 1971; Ivey & Authier, 1978). The microcounseling method divides the complex skill of performing a professional interview into smaller, separate counseling communication skills, so-called microcounseling skills. Students practice these microcounseling skills separately but the ultimate goal of this method is that they are able to integrate these skills and so to perform a counseling interview in a professional manner.

Lang and Van der Molen (1992) expanded the original microcounseling method and developed the so-called cumulative microtraining method (CMT). This method adds a new microcounseling skill to the microcounseling skills that have been already acquired during the training program. So, students cumulatively build their repertoire of counseling communication skills during every consecutive training session.

The second objective of this project was to investigate the effectiveness of both courses in communication skills. The CMT proved to be effective for a variety of professional groups (e.g. Hommes, 2006; Schönrock-Adema, 2002; Van der Molen et al., 1995). Like the courses in communication skills examined by Hommes (2006) and Schönrock-Adema (2002) the courses in this psychology curriculum have a modern setup, because of the multifarious use of Information and Communication Technology (ICT). In every training session students first receive theoretical information on the microcounseling skills with the help of a computer program containing video examples with instructions. Subsequently, students practice the skills in role-plays under supervision of a trainer. The training in basic counseling communication skills consists of five sessions, the training in the advanced counseling communication skills has four sessions. Because the second training program builds on the first training program it is important to examine the students' progress in the acquisition of these skills. The counseling communication skills progress test (CSPT) aims to examine whether both innovative training programs contribute to this progress.

The third objective of this project was to investigate whether there is a relationship between the acquisition of counseling communication skills on the one hand and general intelligence and personality factors on the other hand. Individual differences in the degree to which students master counseling communication skills may be explained by individual differences in intelligence or personality.

Dissertation Outline

Corresponding with the first two objectives of this project, in Chapter 2 the study of the psychometric qualities of CSPT and in Chapter 3 the study into the effectiveness of the training programs in basic and advanced counseling com-munication skills will be presented. The data, used in the studies described in Chapter 2 and 3, were gathered during the academic years of 2004-2005 and 2005-2006. To realize the third objective, Chapters 4 and 5 consider the relationship between, respectively, intelligence and personality on the one hand and the mastery of counseling communication

skills on the other hand. The data, used in the studies presented in Chapter 4 and 5, were gathered during the academic years of 2006-2007 and 2007-2008. Finally, in Chapter 6 the main conclusions and directions for future research are discussed.

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Chapter 2

Progress in Mastery of Counseling Communication Skills

Development and Evaluation of a New Instrument for the Assessment of Counseling Communication Skills [1]

[1] This chapter was published as:

Kuntze, J., Van der Molen, H.T. & Born, M.Ph. (2007). Progress in Mastery of Counseling Communication Skills. Development and Evaluation of a New Instrument for the Assessment of Counseling Communication Skills. *European Psychologist. 12* (4), 301-313.

The study in this chapter was also presented at the 10th European Congress of Psychology (ECP), Prague, Czech Republic, july 3-6, 2007.

Abstract

This article describes the development and evaluation of a new instrument for the assessment of oral counseling communication skills, the Communication Skills Progress Test (CSPT). The first aim of this study concerning the CSPT was to investigate the reliability, dimensionality and discriminant power of the CSPT. The second aim was to examine whether trainees show progress in their mastery of the counseling communication skills after taking a course in basic counseling communication skills and a course in advanced counseling communication skills. The CSPT is designed as a video test. With this test students have to demonstrate their mastery of the separate communication skills. A total of 454 psychology students took the CSPT, either before (T0) or after a course in basic counseling communication skills (T1), or after a course in advanced counseling communication skills (T2). Furthermore, 103 psychology students took the CSPT at T0, T1 and T2; 26 students served as a control group. We found two factors underlying the CSPT, a Basic Skill Factor and an Advanced Skill Factor. The interrater-reliability and internal consistency of these factors were high. As expected, students who followed the basic course showed more progress on the Basic Skill Factor than the students in the control group. After the course in advanced counseling communication skills their scores on the Advanced Skill Factor improved substantially. These findings support the discriminant power of the CSPT. The main conclusion is that the CSPT assesses the progress of the mastery in communication skills in a reliable and valid manner.

This article describes the development and evaluation of a new instrument for the assessment of counseling communication skills: the Communication Skills Progress Test (CSPT). This test has been developed within the framework of counseling communication skills training in the field of psychology. Recently, the European Federation of Psychology Associations (EFPA) described oral communication skills training as one of the requirements for psychology curricula that lead to the diploma of a registered European psychologist (EFPA, 2006). Therefore, many psychology curricula have various courses to train their students in counseling communication skills.

There is an abundance of research exploring how to teach these counseling communication skills effectively (e.g. Baker & Daniels, 1989; Baker, Daniels & Greeley, 1990; Bandura, 1977; Daniels, 2003; Ivey, 1971; Ivey & Authier, 1978; Lang & Van der Molen, 2004; Schönrock-Adema, 2002; Van der Molen, Smit, Hommes & Lang, 1995). Baker et al. (1990) conducted a meta-analysis and a narrative analysis of three major programs for training communication skills: microcounseling (Ivey, 1971), human relations development (Carkhuff, 1969), and interpersonal process recall (Kagan, 1984). The first program, the method of microcounseling, divides the professional behavior of the therapist in a therapist-client interaction into small meaningful skills (for instance asking questions or paraphrasing of content). In training programs that use this method, trainees do a series of small experiential skill exercises. The final goal of microcounseling is that the trainees integrate the specific skills in the framework of a professional helper attitude. The second program, the method of human relations development, emphasizes the Rogerian theory of behavior change. Trainees learn to provide facilitative conditions necessary to enable the client to grow toward greater self-actualization. Finally, the third program, the method of interpersonal process recall, is based on the discovery approach to learning. Trainees are encouraged to study their own interpersonal behavior in order to understand the importance of the therapeutic relationship. In the meta-analysis of Baker et al. (1990) graduate-level helpers were the subjects in all analyzed studies. All three programs were effective in training graduate-level helpers, but the strongest support was found for microcounseling and human relations development. Daniels (2003), in his review of research on microcounseling from 1967 to 2005, concludes that microcounseling is an effective and widely used training-paradigm.

Van der Molen et al. (1995) presented a narrative review and meta-analysis of 19 studies into the effectiveness of communication skills training programs using a

cumulative microtraining (CMT) format. This format was developed by Lang and Van der Molen (1992). The difference between this program and traditional microtraining programs (Ivey, 1971; Ivey & Authier, 1978) is that in each training session a new skill is added to the previous skills and is practiced together with those previous skills. In the traditional microtraining method the focus is on training each skill separately. Four groups of trainees were included in their meta-analysis: (1) students, (2) paraprofessionals, (3) clients with communication problems (for example shy people), and (4) communication skill trainers. All the training programs were directed at three general goals, namely an increase of knowledge of communication skills, extension of the behavior repertoire and changing the experience of difficult communication situations (reduction of anxiousness and enhancement of self-confidence). The strongest effect was found for knowledge (d = 1.9), but the effects for behavior (d = 1.0) and experience (d = .54) were also substantial.

As mentioned above, the methodology of CMT was used in order to achieve the aims of the training programs. CMT consists of six steps. First, trainees receive theoretical instruction about one counseling communication skill (e.g. asking questions) and its function in a professional interview, for instance, a counseling interview. Second, the skill is demonstrated on video (modeling). Trainees view examples showing inadequate application of the skill, followed by examples showing adequate application. Third, trainees do a small exercise to practice the skill separately. For example, they have to try to change a closed question ('Do you like our president?') into an open question ('What is your opinion on our president?'). Fourth, the trainees practice the communication skill in a role-play with another trainee. Fifth, the trainees receive feedback on their performance in the role-plays from fellow-students and the trainer. Finally, they note down their learning points based on this feedback. In the next session they need to pay attention to these learning points and practice a new communication skill (e.g. paraphrasing of content). In CMT the exercises gradually increase in complexity. Although each training session focuses on one or two new skills, the main objective of this method is to progressively integrate the communication skills during the training program.

The above-mentioned studies present evidence that well-structured training programs for teaching counseling communication skills result in a considerable enhancement in the mastery of those skills. However, most of these studies focus on the acquisition of basic counseling communication skills. Basic counseling communi-

cation skills are often taught in the first or second year of a curriculum. Advanced counseling communication skills (e.g. advanced accurate empathy, confrontation, positive relabeling; see Appendix for definitions of these skills) are taught in consecutive years of a curriculum. Although some studies investigated the effectiveness of teaching advanced counseling communication skills (e.g. Parker, 1972; Shea, 1975; Smit, Kuipers & Te Nijenhuis, 1992; Van der Hoek, Houtman, Kooi & Van der Molen, 1988), no research is available concerning the progress of students in acquiring both the basic and advanced counseling communication skills. The main aim of this study is to investigate the progress of trainees in the mastery of basic and advanced counseling communication skills during several years of a psychology curriculum. We developed the CSPT for this purpose.

Knowledge progress tests are already widely used in curricula of medicine and curricula that use Problem Based Learning (PBL) (Blake, Norman, Keane, Mueller, Cunnington & Didyk, 1996; McHarg, Bradley, Chamberlain, Ricketts, Searle & McLachlan, 2005; Van Berkel, Nuy & Geerligs, 1995; Van Til, 1998). These tests are designed to assess the core knowledge of the particular curriculum, for example, medicine or psychology. Students take a progress test two or three times a year during (a part of) their curriculum, for instance, the first three years of the curriculum. A progress test consists of items concerning all the main themes that are dealt with in the courses of the curriculum. The main aim of a progress test is to examine the longterm knowledge of the students. By receiving feedback on one test students are enabled to monitor their progress of knowledge concerning the main themes of their field of study. Comparable to the main goal of a knowledge progress test, the objective of the CSPT is to monitor the progress of the mastery of the counseling communication skills of the trainees.

For the development of the CSPT we had to decide how best to assess counseling communication skills. A widely used model for the assessment of skills is the framework for clinical competence by Miller (1990). Miller's model distinguishes four hierarchical layers of competence: knows (knowledge), knows how (Competence), shows how (Performance) and does (action). The first layer, knowledge, is required to carry out professional functions effectively. The second layer, competence, is required to apply knowledge in concrete situations. Performance, the third layer, is the ability to use this knowledge to perform concrete actions. Finally, action refers to what a professional does during day-to-day activities.

In counseling communication skill programs the assessment of trainees is often a written examination, a multiple-choice test or a self-reflection report, in which the trainees give comments on their use of the communication skills during the program (Smit & Van der Molen, 1996a,b,c). In Miller's terms these types of assessments belong to the first layer; they cover the knowledge goal of the course.

To gain more insight in other types of assessing counseling communication skills Smit and Van der Molen (1996a,b,c) evaluated, apart from the traditional paper-and-pencil tests, two other assessment methods: simulations and video tests. In a simulation the trainee has to perform an interview with a client played by a trained actor. Independent raters judge the trainees' performances. A video test consists of small video clips of one or two minutes. Each video clip shows a client speaking directly into the camera, as though speaking to the trainees. After each video clip the trainees have to demonstrate their mastery of the different counseling communication skills. For example, they have to show their mastery of the skill 'reflection of feeling' by writing down exactly what they would say when they would apply this skill. The authors investigated the reliability, validity and efficiency of application of the different methods. Their conclusions are summarized in Table 1.

Table 1

Quality of Methods for the Assessment of Communication Skills in terms of good (g), sufficient (s), weak (w) and unsatisfactory (u)

	Efficiency	Reliability	Validity
Paper-and-pencil test	g	g	s/w
Simulation	u	w	g
Video test	s	g	s

(Based on Smit & Van der Molen, 1996b, p. 553)

Table 1 shows that the paper-and-pencil test is the most efficient of the three methods in terms of application of the test. Students can take the test at the same time and judging the student's answers takes little time, especially if the test is multiple-choice. The reliability of this kind of tests is good. However, the validity of the paper-and-pencil test appeared to be sufficient to weak. Taking into account the objectives of counseling communication skills training programs mentioned above, paper-and-pencil tests seem to be sufficient in assessing the knowledge goal of the training

programs, the first layer in Miller's framework. However, they are weak in assessing the behavioral component of the skills. As for the assessment of the behavioral goal of communication skill training programs, simulations in role-plays (the third layer of performance in the model of Miller) have a good validity. However, the efficiency of such tests is unsatisfactory and their reliability is weak. Simulations are time consuming because trainees can only perform them individually and because each trainee's behavior has to be assessed separately by trained assessors. The weak reliability of the simulation is caused by the content specificity of this method (Bögels, 1994; Spitzberg & Cupach, 1989; Vu & Barrows, 1994). This means that the trainees' performance on one simulation is hardly generalizable to other situations because the simulation consists of one case (client or patient). Several simulations would have to be administered in order to get generalizable scores.

The third instrument, the video test (an instrument at the second layer of performance in the model of Miller), has a good reliability, whereas the efficiency and validity are considered to be sufficient. With the video test trainees cannot show how they would perform in a face-to-face encounter with a client. Also the non-verbal part of such an encounter cannot be assessed with a video test. However, by writing down exactly what they would say to a client, trainees show their verbal ability in applying the counseling communication skills. Furthermore, the video test can show different situations in which the communication skills should be applied; that makes the scores generalizable. Another advantage of using the video test is that all trainees can take this test at the same time. Therefore, in this study we chose the video test format for the construction of the CSPT. By the use of the video test format, it is also possible to assess the extent to which the trainees master the separate microskills. In the psychology curriculum involved in this study students take a course in basic counseling communication skills in the first year of the undergraduate program. One year later they take a second course in advanced counseling communication skills. The communication skills to be acquired are described by Lang and Van der Molen (2004). There are seven basic skills (e.g. asking questions and paraphrasing) and five advanced skills (e.g. confrontation and directness). All skills are listed in Table 2 (See Appendix for definitions of the skills).

Table 2

Communication skills in the CSPT as defined in Lang & Van der Molen (2004)

Basic skills	Advanced skills
Minimal Encouraging	Advanced accurate empathy
Asking Questions	Confrontation
Paraphrasing	Positive Relabeling
Reflection of feeling	Examples of one's own
Concreteness	Directness
Summarizing	
Situation Clarification	

According to Lang and Van der Molen (2004) the function of the basic skills is to clarify the clients' problem. The function of the advanced skills is to help the client gain new insights in his or her situation. For more detailed discussion of these skills see Lang and Van der Molen (2004). The CSPT assesses both the basic and advanced skills.

These skills fit in with the helping model developed by Egan (1975, 1994). This model consists of three stages: (1) problem clarification, (2) gaining new insights and (3) strategies for treatment.

Aim of this Study

The first aim of this study concerning the CSPT is to investigate its reliability, its dimensionality and its discriminant power. The second aim is to investigate whether trainees show progress in their mastery of the communication skills after taking a basic and advanced course in counseling communication skills. To realize these aims four different groups of students were tested. Freshmen who did not receive any training in counseling communication skills, first-year students who received training in basic counseling communication skills, second-year students who received training in advanced communication skills and a control group including first-year students who took the CSPT without having received any training in counseling communication skills. The answers of all groups, with exception of the control group, were analyzed to investigate the reliability, dimensionality and discriminant power of the CSPT. From one part of the group of second-year students ($N = 103$), scores on the CSPT were gathered when they took this test as a freshman and again when they took the

test as a first-year student. By analyzing these scores it was possible to investigate their progress in the mastery of counseling communication skills after the basic course and the advanced course. Finally, the answers on the CSPT of these students as freshmen and as first-year students were compared with the answers on the CSPT of the control group. The three main questions concerning the first aim of this study are:

1 What is the reliability (interrater reliability and internal consistency) of the CSPT?

2 What are the underlying dimensions of the CSPT?

3 What is the discriminant power of the CSPT?

The main question concerning the second aim of this study is:

4 What is the progress of the students in mastery of communication skills after the course in basic counseling communication skills?

As for the second question we expected two factors to underlie at the CSPT, one factor concerning the basic counseling communication skills and one factor concerning the advanced counseling communication skills. As for the third question we expected the CSPT to discriminate between the levels of mastery in communication skills of freshmen, first-year students and second-year students. We expected first-year students to score higher on the CSPT than freshmen and second-year students to score higher on the CSPT than the first-year students. As for the fourth question we expected that students who took the CSPT as freshmen, as first-year students and as second-year students improve in their mastery of the counseling communication skills. That is, students would score higher on the basic skills as first-year students than when they were freshmen, and they would score higher on the advanced skills as second-year students than as first-year students. Finally, we expected that students who took a course in basic counseling communication skills would score higher on these skills than students who did not.

Method

Construction of the CSPT

To construct the CSPT we developed 42 video clips (items). The first 30 items of the CSPT assess the level of mastery of basic counseling communication skills. These items were adopted from a study of Adema, Lang and Van Oudenhoven-Van der Zee (1999). The next 12 items assess the level of mastery of advanced counseling communication skills. These items were constructed by the present authors. The communica-

tion skills assessed with the CSPT were derived from the textbook on psychological communication of Lang and Van der Molen (2004), and shown in Table 2. There are two reasons for the higher number of items for the assessment of the basic skills than for the assessment of the advanced skills. First, there are more basic skills than advanced skills. Second, the assessment of an advanced skill takes more time than the assessment of a basic skill. To illustrate this, we will now present two examples of items of the CSPT, one example of an item assessing a basic skill and one example of an item assessing an advanced skill.

Examples of items in the CSPT

All 42 items of the CSPT consist of a video clip. In this video clip a person playing the role of a client says something concerning his or her problem.

Example 1 Assessment of a basic skill.

First, the particular skill that students have to apply is shown on the screen as an instruction. This instruction is also printed on their answering form. An example of such an instruction is:

'Ask an open question in an appropriate manner'

Then the video clip shows a client saying something concerning his or her problem. For instance, a client in the video clip says:

"I really was looking forward to see him again. It was such a long time ago. And he also had written that he was really looking forward to it. So, obviously I really didn't expect something like that ..."

After having observed the video clip students write down exactly what they would say to the client applying the skill 'asking an open question'. The students have one or two minutes to write down their answers depending on the complexity of the skill. After that they hear a sound to indicate that the next item of the CSPT will start.

Example 2 Assessment of an advanced skill.

The difference between the items that are meant to assess the advanced skills and the items that are intended for the assessment of the basic skills is that at the beginning of

the ‘advanced’ items a situational context is presented. A psychologist uses advanced skills only after having clarified the problem with the client. During this process of problem clarification the psychologist has gathered information about the client's situation, behavior and personality. This information is needed in order to help the client gain new insights. Students need this contextual information about the client for the adequate application of the advanced skills.

First, the particular skill the students have to apply in their answers is shown on the screen together with the relevant information of the client. This instruction is also printed on their answering form. An example of such an instruction is:

'Context:
Man, 39 years, works at the Department of Justice. Some time ago he had an assessment interview with his superior. Among other things he was criticized for being late and missing deadlines. The client thinks this is nonsense; he's doing his job, isn't he! Now it's the third time he's late for his appointment with you.
Use the skill of confrontation adequately.'

Then the video clip starts showing the client saying something concerning his or her problem. For instance, the client in the instruction example above says in the video clip:

"Sorry I'm late, I just missed the tram, but well, now I'm here."

The students have to write down exactly what they would say to the client applying the skill of ‘confrontation’. They have two or three minutes to write down their answers. After this time they hear a sound to indicate that the next item of the CSPT will start. The time these items take is longer than the time needed for the items of the basic skills, because the students first have to read the context and because the advanced skills are more complex.

Two versions of the CSPT (A and B)

Two comparable versions of the CSPT were constructed to control for testing effects. An instruction guide was developed to score and judge the answers on the CSPT in a reliable and comprehensive way. General guidelines were developed for each communication skill, based on the definitions of it in Lang and Van der Molen (2004). Expert

counselors were asked to define the requirements for an adequate answer, a moderately adequate answer, and an inadequate answer. Students received two points for an adequate answer, one point for a moderately adequate answer, and zero points for an inadequate answer.

Three independent raters judged the answers of the students on the CSPT in order to assess the interrater reliability. The raters were three third-year psychology students, who were selected on the basis of good study achievements in general and on achievements in the skill training courses in particular. They were trained in judging the CSPT. They read the manual, watched the CSPT and answered a number of items of the CSPT themselves. After that they compared their answers with the answers in the instruction guide and practiced to rate student answers on the CSPT. This rater training took approximately eight hours.

Procedure and Participants

The CSPT was administered to first-year and second-year students of the psychology curriculum at a large Dutch university during two consecutive years, the academic years of 2004-2005 and 2005-2006. Every student took the CSPT three times.

Students took the CSPT for the first time just after starting their study of psychology as freshmen, approximately three weeks after the start of the academic year, in order to become acquainted with this instrument (T0). The second time the students took the CSPT is after six months into their first year, just after they had taken the course in basic counseling communication skills, in order to determine their basic level of mastery in these skills (T1). This course consists of five sessions spread out over five weeks. Students take the CSPT for the third time after six months into their second year, having finished the course in advanced counseling communication skills, in order to determine their basic and advanced level of mastery in counseling communication skills (T2). This course consists of four sessions spread over four weeks. Both first-year and second-year students received the CSPT as a formal examination after, respectively, the course in basic counseling communication skills and the course in advanced counseling communication skills. For both groups minimal scores to pass the examination were determined. The students took the CSPT in a large examination hall, where they had to watch the video test on a large screen. Both versions of the CSPT (A and B) were randomly divided over the freshmen. The first-year students received the version of the CSPT they did not receive when they were freshmen

and second-year students received the version of the CSPT they did not receive when they were first-year students.

First, a file was created with the data of 454 psychology students who took the CSPT as freshmen ($N = 102$), as first-year students ($N = 206$), or as second-year students ($N = 146$). With these data the reliability, the underlying dimensions of the CSPT, and the discriminant power of the CSPT between freshmen, first-year students and second-year students were investigated.

A second file was created with data of 103 psychology students who took the CSPT at all the three measurement points of T0, T1 and T2. These 103 students were part of the 146 second-year students mentioned above. Progress in the mastery of counseling communication skills was investigated with the data of these 103 students.

In the academic year 2005-2006 the CSPT also was taken by 26 first-year psychology students of another large university in the Netherlands. This group of students is referred to as the control group. This control group took the CSPT twice; first, as freshmen, when they had just started their study psychology. They took the CSPT a second time after six months into their first year, however, without having received any training in counseling communication skills. The results on the CSPT of the control group are compared with the results on the CSPT of the psychology students of the other Dutch university who did take a course in the basic communication skills, at T0 and T1.

Biographical information

Some 70% of the first file of 454 students were female and 30% were male. The mean age was 21. For 69% of the students, university preparatory education was the highest education they had completed prior to their study in psychology (this is the highest form of secondary education in the Netherlands). The remaining 31% obtained a degree either in higher professional education or in a university program other than psychology. For the total group of participants regression analyses showed no significant influences of gender, age and prior education on the scores of the CSPT.

In the control group 96% of the students were female and 4% male. The mean age was 22. In the control group, 69% completed university preparatory education prior to their study in psychology and 31% obtained a degree either in higher professional education or in another university program than psychology. Regression ana-

lyses showed no significant influences of gender, age and prior education on the scores of the control group on the CSPT.

Results

Similarity of both versions of the CSPT

To compare the difficulties of both versions of the CSPT the results on the CSPT were analyzed per group of students. No significant differences were found between Versions A and B for the group of freshmen, t (100) = -1.2, $p > .2$, the group of first-year students, t (204) = 1.8, $p > .06$, and the group of second-year students, t (144) = -0.0, $p > .98$. These findings justify the conclusion that the difficulty of both versions is comparable.

Reliability

At the start of this study three independent raters judged the answers of the freshmen on the CSPT. The average inter rater reliability was .89 ($p < .01$). Based on this finding and because comparable interrater reliabilities were found by Smit and Van der Molen (1996a,b,c) and Schönrock-Adema (2002), we decided for efficiency reasons to let one rater judge the answers on the CSPT of the first- and second-year students. As a final check on the interrater reliability, we asked two new independent raters to blindly assess the scores on the CSPT of 50 students from the total group of 454. These two new raters did not know whether they were judging the answers of a freshman, a first-year student or a second-year student (this group of 50 students included 10 freshman, 20 first-year students and 20 second-year students). The interrater reliability between the two new raters was .97 ($p < .01$). The correlation between the average scores of the new raters per student and the average scores of the former three raters was .94 ($p < .01$).

The internal consistencies of both versions (A and B) of the CSPT were also high with Cronbach's α for version A of .91 and .92 for version B.

Underlying dimensions of the CSPT

To investigate the dimensionality of the CSPT, an explorative factor analysis was performed using principal component analysis and oblique rotation (Oblimin) with Kaiser normalization. A two-factor structure was expected, because the CSPT consists

of 30 items assessing the basic counseling communication skills and 12 items assessing the advanced counseling communication skills. Table 3 shows the pattern matrix resulting from this analysis.

The factor analysis showed an eigenvalue for Component I of 8.9 and an eigenvalue of 6.2 for Component II, together explaining 31.5 % of the variance. The scree test also confirmed this two-factor solution. We decided to use items with loadings of .35 or higher because these are likely to be both reliable and important (Stevens, 2002). Table 3 reveals that twenty-six of the thirty items (items 1-30) that assess the basic counseling communication skills have loadings higher than .35 on Component I. These 26 items do not have loadings of .35 or higher on Component II. The four remaining items (items 21, 23-25), assessing the basic counseling communication skills do not have loadings of .35 or higher on either Component I or Component II. All twelve items assessing the advanced counseling communication skills have loadings higher than .35 on Component II (items 31-42). These twelve items do not have loadings of .35 or higher on Component I. The correlation between these two components was .35. In the remainder of this paper Component I will be referred to as the Basic Skill Factor and Component II as the Advanced Skill Factor.

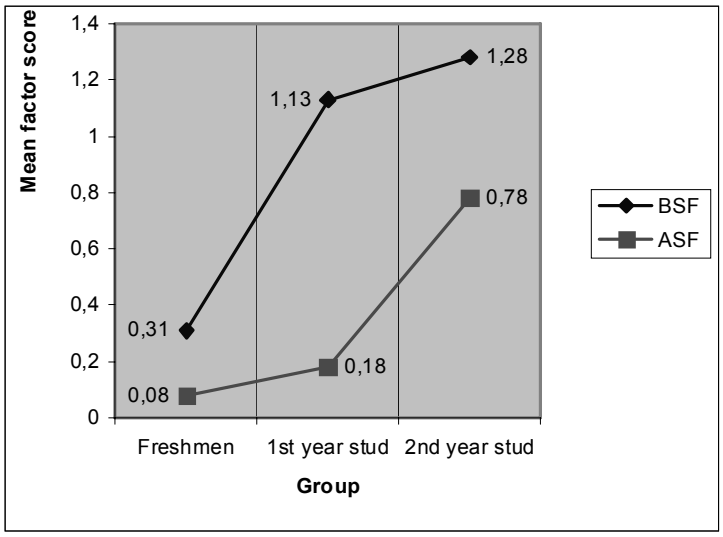
For the group of 454 students a score on the Basic Skill Factor was calculated by taking the average score per student of the 26 items loading higher than .35 on this factor. The same calculation was performed for the Advanced Skill Factor by averaging the scores per student of all twelve items, which all had loadings higher than .35 on this second factor. Accordingly, all students received a score between 0 and 2 on the Basic Skill Factor and the Advanced Skill Factor, by which a score of or near 0 is very low and a score of or near 2 is very high. Cronbach's α for the Basic Skill Factor was .91 and for the Advanced Skill Factor Cronbach's α was .83.

Table 3

Factor Loadings of all items of the CSPT after oblique rotation

Itemnr	Component 1	Component 2
1	.64	.11
2	.54	-.10
3	.51	.04
4	.55	-.11
5	.58	.08
6	.46	.03
7	.52	.30
8	.56	.02
9	.39	.10
10	.54	-.18
11	.58	.19
12	.57	.19
13	.59	.03
14	.50	.28
15	.39	.17
16	.61	-.12
17	.43	.20
18	.41	.12
19	.38	.13
20	.47	-.03
21	.31	.13
22	.50	.26
23	.32	.09
24	.32	.04
25	.25	-.19
26	.57	.01
27	.61	.00
28	.50	.01
29	.48	-.10
30	.51	-.04
31	.08	.65
32	.16	.61
33	-.04	.64
34	-.04	.50
35	.06	.57
36	.03	.45
37	.12	.60
38	.13	.50
39	-.02	.68
40	.00	.48
41	.13	.42
42	.09	.62

Figure 1. Mean factor scores on the Basic Skill Factor (BSF) and the Advanced Skill Factor (ASF) per group of students (Freshmen, 1st year students and 2nd year students).



Discriminant power of the CSPT

To analyze the discriminant power of the CSPT the mean scores on the Basic Skill Factor and the Advanced Skill Factor for the freshmen, the first-year students and the second-year students were compared (See Figure 1).

The mean score on the Basic Skill Factor for the freshmen was .31 ($N = 102$), for the first-year students 1.13 ($N = 206$) and for the second-year students 1.28 ($N = 146$). The mean score on the Advanced Skill Factor was for the freshmen .08 ($N = 102$), for the first-year students .18 ($N = 206$) and for the second-year students .78 ($N = 146$). A one-way ANOVA showed that these mean differences were significant for both the Basic Skill Factor, $F(2, 451) = 579$; $p < .001$, and the Advanced Skill Factor, $F(2, 451) = 533$; $p < .001$. These findings suggest that the CSPT discriminates adequately between freshmen, first-year and second-year students.

Progress in mastery of the communication skills

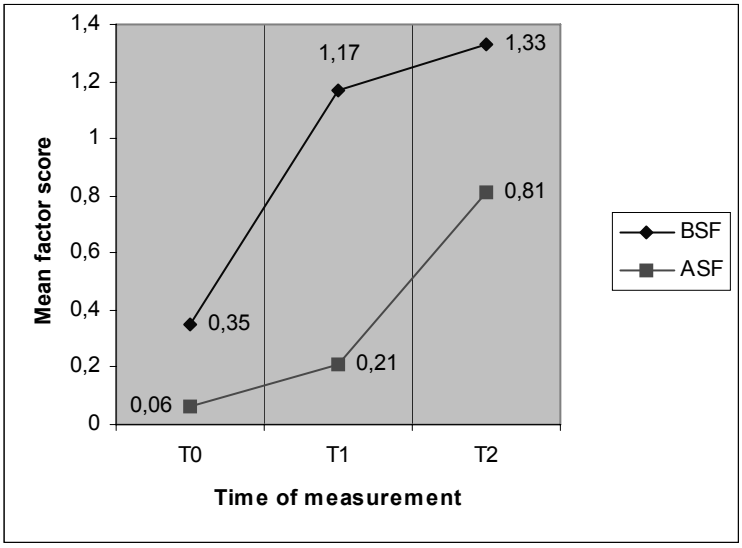
For 103 second-year students used in the former described analyses, a complete set of data with scores at T0, T1 and T2 was available. To investigate their progress in the mastery of counseling communication skills their scores on the Basic Skill Factor and on the Advanced Skill Factor were calculated. Six scores for every student were obtained: scores on the Basic Skill Factor at T0, T1 and T2 and scores on the Advanced

Skill Factor at T0, T1 and T2. The mean score on the Basic Skill Factor was .35 at T0, 1.17 at T1 and 1.33 at T2; the mean score on the Advanced Skill Factor was .06 at T0, .21 at T1 and .81 at T2.

The mean scores on both factors at T0, T1 and T2 were put in a general linear model, using the repeated measures analysis. The within-subjects differences on the Basic Skill Factor were significant, F (1) = 1193; $p < .001$. On the Advanced Skill Factor the within-subjects differences were also significant, F (1) = 585.6; $p < .001$. For both factors correlations between the scores on T0, T1 and T2 are between .06 and .17 (all n.s.). This indicates that the progress in mastering the basic and advanced counseling communication skills does not depend on the scores of the students at T0.

Regression analyses on the change of scores on both factors between T0 and T1 and between T1 and T2, showed only a small influence of gender on the change in score on the Basic Skill Factor between T0 and T1 (β = -.14[1], t (102) = -2.1, p = .04, R^2 = .04). Figure 2 shows the plots for the mean scores on both factors at T0, T1 and T2.

Figure 2. Mean factor scores on the Basic Skill Factor (BSF) and the Advanced Skill Factor (ASF) per time of measurement (T0, T1 and T2).



[1] Gender was coded as follows: female = 1 and male = 2. Thus, any change in score on the BSF between T0 and T1 was a little bit higher for women than for men.

Figure 2 makes clear that students show most progress on the Basic Skill Factor between taking the CSPT as a freshman and taking the CSPT as a first-year student. Between these two times students received the training in basic counseling communication skills. The effect size (*d*) was calculated by taking the mean difference on the Basic skill Factor between T1 and T0 and dividing it by the pooled standard deviation on this factor (Cohen, 1988, 1992). This formula shows an effect size of 2.9, which is, according to Cohen, a large effect. The progress on this factor between taking the CSPT as a first-year student and taking the CSPT as a second-year student is smaller, but still significant. In this period students received the training in advanced counseling communication skills. Although the emphasis in this training is on learning the advanced skills, students also repeat the basic skills. The effect size (*d*) is .6, which is a moderate effect according to Cohen.

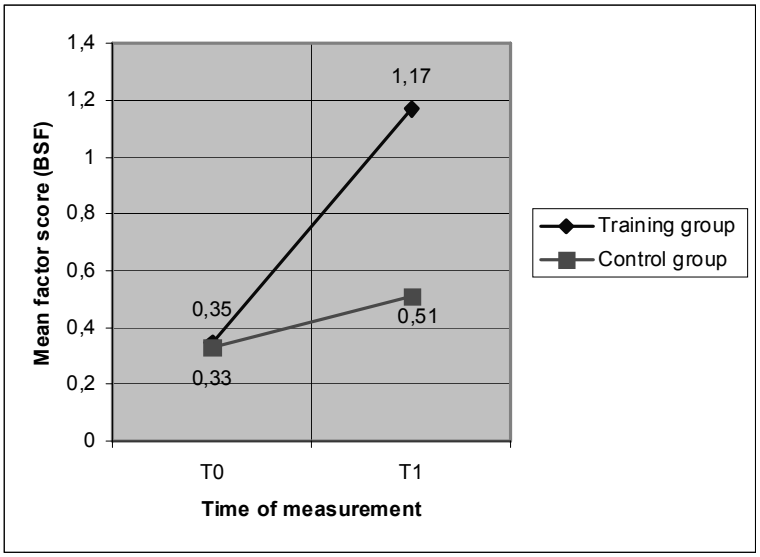
Figure 2 also shows the progress of the students on the Advanced Skill Factor between the three measurements. Rather unexpectedly, students show significant progress on this factor between the measurement as a freshman and the measurement as a first-year student, (*d*) is .8, which is a large effect. However, students show the highest progress in using the advanced skills between taking the CSPT as a first-year student and taking the CSPT as a second-year student, (*d*) is 1.8, which is a large effect.

All together the results show that during the first two years of their study the students developed their mastery in basic and advanced counseling communication skills to a higher stage. However, they master the basic skills at a higher level than they master the advanced skills.

Comparison with the control group

The scores on the Basic Skill Factor at T0 and T1 of the 103 students described in the former section (the training group), were compared with scores on this factor of a control group of 26 first-year students in psychology of another Dutch university. This control group also took the CSPT at T0 and T1. The mean score on the Basic Skill Factor for the control group was .33 at T0 and .51 at T1, for the training group it was .35 at T0 and 1.17 at T1. The difference between the mean scores at T0 is not significant, t (127) = -.46; p = .65. So, the scores of the two groups on the CSPT were comparable when they took the test as freshmen. Figure 3 displays the mean plots on both factors of the training group and the control group.

Figure 3. Mean factor scores on the Basic Skill Factor (BSF) for the training group and the control group at T0 and T1 (Freshmen and 1st year students).



The mean scores on this factor at the two measurements were put in a general linear model, using the repeated measures analysis, taking the time of measurement as a within-subject difference and training in counseling communication skills as a between-subjects difference. Also the interaction between time of measurement and whether or not training was received was analyzed. The within-subjects difference on the Basic Skill Factor was significant, F (1) = 288.7; $p < .001$. The between-subjects difference also was significant, F (1) = 82.4; $p < .001$. The interaction between time of measurement and receiving training or not was also significant, F (1) = 115; $p < .001$. So, on the Basic Skill Factor both groups scored higher at T1. However the training group improved more on this factor than the control group.

Regression analyses on the change of scores on both factors between T0 and T1 showed no influences of the biographical variables. The effect size (d) was calculated by taking the mean difference on the Basic Skill Factor between the training group and the control group at T1 and dividing it by the pooled standard deviation of the control group (Glass, 1976). The effect size (d) is 3.3, which is a large effect (Cohen, 1988, 1992).

Discussion

In this article a new instrument for the assessment of counseling communication skills has been presented: the Communication Skills Progress Test. The first aim of this study was to investigate the reliability, dimensionality, and discriminant power of the CSPT. For this purpose the scores on the CSPT for freshmen, first-year psychology students who took a course in basic counseling communication skills, and second-year psychology students who had taken a course in advanced counseling communication skills were analyzed.

The first question concerned the reliability of the CSPT. It was shown that both the interrater reliability and internal consistency of this test are high. These findings are in accordance with findings of Smit and Van der Molen (1996a,b,c) and Schönrock-Adema (2002).

The second question concerned the dimensions underlying the CSPT. We expected a two-factor solution for the items of the CSPT, one factor concerning the items that assess the basic counseling communication skills and one factor concerning the items that assess the advanced counseling communication skills. As expected, factor analysis revealed a Basic Skill Factor (consisting of 26 items) and an Advanced Skill Factor (consisting of 12 items). The internal consistency of both factors was high. A moderately high correlation was found between the two factors. This correlation is not surprising, because one would expect freshmen, who did not receive any training in counseling communication skills, to have low scores on both factors and second-year students, who took both a course in basic counseling communication skills and a course in advanced counseling communication skills, to have high scores on both factors. However, the first-year students, having received only a course in basic counseling communication skills, were expected to score high on the Basic Skill Factor, but low on the Advanced Skill Factor.

The third question concerned the discriminant power of the CSPT. We expected first-year students to score higher on the CSPT than the freshmen and second-year students to score higher on the CSPT than first-year students. It was shown that in comparison with the freshmen first-year students scored significantly higher on both factors. However, as might be expected, the mean difference on the Basic Skill Factor was much higher than on the Advanced Skill Factor. The second-year students scored significantly higher on both factors than the first-year students: here, the mean difference on the Advanced Skill Factor was much higher than on the Basic Skill Factor.

All together the results show that the CSPT correctly discriminates between groups that are assumed to differ in their mastery of communication skills.

The second aim of this study was to investigate the progress of trainees in the mastery of communication skills after a course in basic and advanced counseling communication skills. For this purpose we took the scores of students on the Basic Skill Factor and the Advanced Skill Factor measured at three different times, T0, T1 and T2. First these students took the CSPT as freshmen (T0), second as first-year students after a course in basic counseling communication skills (T1) and third as second-year students after a course in advanced counseling communication skills (T2). Furthermore, the scores of these students on the Basic Skill Factor at T0 and T1 were compared with the scores on this factor of a control group, who took the CSPT at T0 and T1.

We expected the students to score higher on the basic counseling communication skills at T1 than at T0, and higher on the advanced counseling communication skills at T2 than at T1. The results showed that the students scored higher on both factors at T1 than at T0 and they scored higher on both factors at T2 than at T1. So, the students showed progress in both factors between all three measurements.

However, taking into account the effect sizes found in this study, between T0 and T1 the students showed most progress on the Basic Skill Factor (d = 2.9) in comparison with the Advanced Skill Factor (d = .8). Between T1 and T2 they showed most progress on the Advanced Skill Factor (d = 1.8) in comparison with the Basic Skill Factor (d = .6). So it seems that following a course in basic counseling communication skills had, as expected, a large effect on performance on the Basic Skill Factor, but also a moderate effect on performance on the Advanced Skill Factor. An explanation for this rather unexpected finding is that students gain some insight in the advanced skills during the basic course. Another explanation is that they have been sensitized for the video test items that measure the advanced skills by taking the test at T0. Furthermore, the results show that following a course in advanced counseling communication skills has a large effect on performance on the Advanced Skill Factor, but also a moderate effect on performance on the Basic Skill Factor. This finding is easier to explain, because the students are expected to repeat the exercise of the basic skills in the advanced course.

Returning to the effect size we found for the Basic Skill Factor between T0 and T1, we found an even larger effect size when these scores were compared with

the scores of the control group (d = 3.3). First, this supports the conclusion that the CSPT discriminates well between groups that are supposed to differ in their performance on the basic skills. Second, it shows that a course in basic counseling communication skills is effective. The finding that the control group scored higher on T1 than on T0 can be explained as a testing effect. Another explanation is that the students in the control group, although without receiving any training in counseling communication skills between T0 and T1, did study psychology during this six months period. They may have acquired some insight in the use of counseling communication skills in other psychology courses (e.g., one course required that they perform an interview with a professional psychologist in the field).

Compared to the mean effect sizes reported in several meta-analyses (Baker & Daniels, 1989; Baker et al., 1990; Daniels, 2003; Van der Molen et al., 1995) the effect-sizes found in this study are somewhat larger. One explanation for this difference is that the majority of the investigated studies in these meta-analyses used paper-and-pencil tests (or questionnaires) and/or standardized role-plays to assess the effects of the communication skills training programs. Paper-and-pencil tests assess the knowledge of counseling communication skills and standardized role-plays assess the integrated mastery of counseling communication skills. However, the CSPT focuses on the application of the separate counseling communication skills. Students have to write down exactly what they would say to the client when they have to apply a specific microskill. In addition, the adequacy of the application of the skills is assessed. The basic level of mastery of the separate communication skills, as assessed by the CSPT might be lower than the basic level of knowledge about communication skills as assessed by the paper-and-pencil tests and the basic level of the integrated mastery of communication skills, as assessed by standardized role-plays. For instance, students who did not take a course in counseling communication skills might be accurate in answering questions about definitions of skills (e.g., "What does 'paraphrasing of content' mean?"), especially when a multiple-choice format is used. When these students are assessed in a standardized role-play, the students will not apply these skills correctly, but they may show an empathic attitude, which raises the overall judgment of their performance.

A second explanation is that students who have taken a course in counseling communication skills improve their application of the separate counseling communication skills much more than their knowledge of counseling communication skills and

the integrated use of the counseling communication skills. Previous studies (e.g., Baker & Daniels, 1989; Baker et al., 1990; Van der Molen et al., 1995) have shown that students improve their knowledge of counseling communication skills and their performance in integrated use of the counseling communication skills, but it is possible that training one or two skills at a time has a more positive effect on the mastery of the separate counseling communication skills.

Limitations of the Study

One important limitation of our study is the small size of the control group in comparison with the size of the training group. The main reason for the small number of students in the control group was that it proved to be very difficult to motivate them to participate two times in a time-consuming video test.

Another limitation is that the CSPT is not compared with another test for the assessment of counseling communication skills. Therefore, we do not know how the CSPT relates to other measures of counseling communication skills. However, the discriminant power of the CSPT found in this study is satisfying.

Future Research and Conclusion

Future research might replicate this study with more subjects in the control group. To gain more insight into the discriminant power of the CSPT it should be administered to a group of professional psychologists. It would be expected that their mean score on the CSPT is higher than the mean score of the second-year students.

In order to investigate the concurrent validity of the CSPT it should be compared with another test for the assessment of the mastery of counseling communication skills, for instance, a behavioral role-play test. However, the main conclusion of this study is that the CSPT is an instrument that can be used for the assessment of progress in the mastery of communication skills in a reliable and valid manner.

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Chapter 3

Increase in Counseling Communication Skills After Basic and Advanced Microskills Training [1]

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Abstract

Mastering counseling communication skills is one of the requirements that lead to the diploma of a registered European psychologist. The microcounseling method proves to be effective in training these skills. Research into the effectiveness of the micro-counseling method often reports overall effect sizes only. The aim of this study was to investigate the adequate use of separate counseling communication skills (seven basic skills: minimal encouragements, asking questions, paraphrasing, reflection of feeling, concreteness, summarizing *and* situation clarification *and five advanced skills:* advanced accurate empathy, confrontation, positive relabeling, examples of one's own *and* directness*) after respectively a basic and an advanced training in these skills. Participants were 583 first-year or second-year bachelor students in psycho-logy who took the Counseling Communication Skills Progress Test (CSPT). The participants are divided in a group of freshmen, who had not received any training in counseling communication skills; first-year students, who had received a training in basic skills; second-year students who had followed a training in advanced skills and a control group. A between-subject design, a within-subject design and a pre-test-post-test-control group design were used to examine the scores on these skills. Seven basic skills and four advanced skills had large effect sizes. One advanced skill had a moder-ate effect size. The microcounseling method is very effective on the level of separate microskills. However, students perform better on the basic skills than on the advanced skills. More training seems to be needed in the latter to achieve the same level of mastery.*

Counseling communication skills training programs are considered to be important in psychology curricula. In 2006 the European Federation of Psychology Associations (EFPA) emphasized oral communication skills training as one of the requirements for psychology curricula that lead to the diploma of a registered European psychologist (EFPA, 2006). The microcounseling method (Daniels & Ivey, 2007; Ivey, 1971; Ivey & Authier, 1978; Ivey & Bradford-Ivey, 2007) proves to be effective in training these counseling communication skills. However, studies (e.g. Bögels, 1994; Evans, Coman & Burrows, 1989; Evans, Sweet & Coman, 1993; Gask, 1998; Toriello & Strohmer, 2004) and meta-analyses (Baker & Daniels, 1989; Baker, Daniels & Greeley, 1990; Daniels, 2003; Van der Molen, Smit, Hommes & Lang, 1995) often report overall effect sizes only, summing up the scores for all the skills that have been taught in the training program.

In this article we describe an investigation into the adequate use of separate counseling communication skills after training programs in counseling communication skills. Kuntze, Van der Molen and Born (2007) developed an instrument for the assessment of counseling communication skills, the Counseling Communication Skills Progress Test (CSPT). They found that the CSPT is a reliable test and that it discriminates well between groups of trainees that are supposed to differ in their mastery of the counseling communication skills. Following Egan (1975, 1994), Kuntze et al. (2007) divide counseling communication skills in basic counseling communication skills and advanced counseling communication skills. Yet, also in this study only overall effect scores for these counseling skills have been reported, without making a distinction between different counseling communication skills. The aim of the present study is to investigate the adequate use of each skill separately.

The counseling communication skills that are dealt with in the aforementioned training programs are also known as so-called microskills (Daniels & Ivey, 2007; Ivey, 1971; Ivey & Authier, 1978; Ivey & Bradford-Ivey, 2007; Lang & Van der Molen, 2004). Ivey has divided the complex skill of performing a professional counseling interview into small meaningful counseling communication skills, for example asking questions or reflection of feeling. These skills fit within the helping model developed by Egan (1975, 1994). This model consists of three stages: (1) problem clarification, (2) gaining new insights and (3) strategies for treatment. The goal of the first stage, problem clarification, is to clarify the clients' problem. The goal of the second stage, gaining new insights, is to help clients gain new insights in their

situation. In the third stage, strategies for treatment, the client and helper formulate strategies to solve the problem(s) discussed in the first and second stage. Helpers mainly use the seven basic counseling communication skills in the first stage. In the second stage helpers mainly use the five advanced counseling communication skills. Below we give a short explanation of these basic and advanced counseling communication skills, based on Lang, Van der Molen, Trower and Look (1990).

Minimal encouragements are brief verbal responses intended to encourage clients and show that they receive attention. *Asking questions* helps clients put their own thoughts into words and to clarify their problems. A significant distinction can be made in open and closed questions. Open questions leave clients a considerable amount of freedom in the formulation of their answer. With closed questions the answer is determined largely by the content of the question. *Paraphrasing of content* means briefly reproducing in one's own words the gist of what the client has said. *Reflection of feeling* literally means the reproducing or mirroring of feeling. The helper pays attention to and shows understanding for the more emotional aspects of the client's story. *Concreteness* is a composite skill which means that the skills mentioned above, minimal encouragements, open and closed questions, paraphrasing and reflecting, all contribute to it. The purpose of this skill is to help clients be as accurate and precise as possible when discussing their problems. Using the skill of s*ummarizing*, the helper structures what clients have said by ordering the main points in their story. *Situation clarification* refers to the ability of the helper to recognize and discuss ambiguities or misunderstandings that occur during the relationship between the helper and the client.

The function of the five advanced counseling communication skills is to help clients gain new insights in their situation. With *Advanced accurate empathy* the helper gives an interpretation of the client's story which is more distant from the client's frame of reference, but gives a sharper or more constructive view of the problem. *Confrontation* is a more pronounced form of advanced accurate empathy. The helper gives a response to the client's views about him- or herself and the world that is significantly different from that of the client. *Positive relabeling* means to apply a new, positive reconstruction to the parts of the problem originally found to be negative. The function of this skill is to alter the negative self-image of the client. With *Examples of one's own* helpers share some of their own experiences with the client and thus show what is on their minds. This skill is often also referred to as self-

disclosure. *Directness* implies that there is a frank discussion about what is happening in the here-and-now situation of the contact between helper and client. The first aim of this skill is to promote further joint cooperation; it concerns the personal relationship between client and helper. The second goal of directness is to give clients an idea of the consequence of their behavior.

The basic counseling communication skills are often taught in the first or second year of an academic bachelor level psychology curriculum. The advanced counseling communication skills are taught in consecutive years of the curriculum. Subjects in the present study followed a course in basic counseling communication skills in the first year of their bachelor study in psychology and a course in the advanced counseling communication skills in their second bachelor year. Both courses are developed according to the cumulative microtraining (CMT) method (Lang & Van der Molen, 1992), which consists of six steps. First, trainees receive a theoretical instruction about one counseling communication skill (e.g. asking questions) and its function in a professional interview, such as a counseling interview. Second, the skill is demonstrated to the trainees on video (modeling). Trainees observe examples showing inadequate application of the skill, followed by examples showing adequate application. Third, trainees do a small exercise to practice the skill separately (like 'dry swimming'). For example, related to the basic skill 'asking questions' trainees have to try to change a closed question ('Do you like our president?') into an open question ('What is your opinion on our president?'). Fourth, the trainees practice the communication skill in a role-play with another trainee. Fifth, the trainees receive feedback on their performance in the role-plays from fellow-students and the trainer. Finally, they note down their learning points based on this feedback. In the next session they need to pay attention to these learning points and practice a new communication skill (e.g. paraphrasing of content). In the CMT the exercises gradually increase in complexity. Although each training session focuses on one or two new skills, the main objective of this method is to integrate the communication skills that have been dealt with up to that moment in the training program. Both courses aim to increase the adequate use of the (basic or advanced) counseling communication skills of the students.

To examine whether this objective is realized Kuntze et al. (2007) developed the CSPT. Based on the evaluation of different methods for assessing counseling communication skills of Smit and Van der Molen (1996a, 1996b, 1996c) they designed the CSPT as a video test. It consists of forty-two small video clips in which an

actor playing the role of a client tells something concerning his or her situation. After each video clip students write down literally what they would say to the client, having received the instruction to use a counseling communication skill (e.g. 'Ask an open question in an appropriate manner'). It was found that the items of the CSPT could be described by two factors, a basic skill factor (BSF) and an advanced skill factor (ASF), with the BSF consisting of items assessing the basic counseling communication skills and the ASF consisting of items assessing the advanced counseling communication skills. For a detailed discussion of the construction and the evaluation of the CSPT we refer to Kuntze et al. (2007). They found that students showed the highest increase on their scores on the BSF after following the course in basic counseling communication skills. As expected, after following the course in advanced communication skills students showed most progress on the ASF.

However, both factors consist of separate counseling communication skills. The BSF consists of the seven basic counseling communication skills and the ASF consists of the five advanced counseling communication skills, which we have described earlier. Because CMT focuses on learning the counseling communication skills separately, insight in the progress of students in their mastery of the separate skills can give us useful information for improving the courses in counseling communication skills.

Method

Measure

The Counseling Communication Skills Progress Test (CSPT) was used to assess the participants' mastery of the counseling communication skills. The first 30 items aim to assess the level of mastery of the seven aforementioned basic skills. The next 12 items aim to assess the level of mastery of the five previously described advanced skills. There are two reasons for the higher number of items for the assessment of the basic skills than for the assessment of the advanced skills. First, there are more basic skills than advanced skills. Second, the assessment of an advanced skill takes more time than the assessment of a basic skill.

As mentioned above, every item in the CSPT consists of a small video clip in which an actor playing the role of a client tells something concerning his or her situation. After each clip students have to literally write down what they would say to the client having received the instruction to use a counseling communication skill. Three trained raters using an instruction guide assessed the students' answers. In this guide

general instructions have been developed for the assessment of the application by the students of every counseling communication skill, based on the skills definitions in Lang and Van der Molen (2004). Expert counselors were asked to indicate for every item what the requirements were for an adequate answer, a moderately adequate answer and an inadequate answer. For an adequate answer the students received two points, for a moderately adequate answer one point and for an inadequate answer zero points.

Two comparable versions of the CSPT were constructed to control for testing effects. Kuntze et al. (2007) found no significant differences in the students' scores between the two versions. Furthermore, the internal consistencies of the two versions were .91 and .92 and the interrater-reliabilities ranged between .89 and .97. They concluded that the difficulty of the two versions of the CSPT is comparable and that both versions of the CSPT are reliable.

Procedure and Participants

The CSPT was administered to first-year and second-year bachelor students of a psychology curriculum at a large Dutch university during the years 2004-2006. Each student had to take the CSPT three times.

Students took the CSPT for the first time when they just had started their study psychology as freshmen, approximately three weeks after the start of the academic year, to assess the basic level of their mastery of the skills (T0). The second time students took the CSPT six months later in their first year, just after they had received the course in basic counseling communication skills (T1). This course consists of five sessions spread out over five weeks. Students took the CSPT the third time after six months in their second year, when they just had finished the course in advanced counseling communication skills (T2). This course consists of four sessions spread over four weeks. Both first-year and second-year students received the CSPT as a formal examination after respectively the course in basic counseling communication skills and the course in advanced counseling communication skills. For both groups minimal scores to pass the examination were determined.

Both versions of the CSPT were randomly divided over the freshmen. The first-year students received the version of the CSPT they had not received when they were a freshman and the second-year students received the version of the CSPT they had not received when they were a first-year student.

A between-subject design was used to investigate the differences in the adequate use of the separate counseling communication skills between the aforementioned three groups of students. The scores on the CSPT of 102 freshmen, 206 first-year students and 146 second-year students were compared.

Furthermore, a within-subject design was used to examine the progress of the students' mastery of the separate counseling communication skills. Data of 103 psychology students who took the CSPT at all the three times of measurement T0, T1 and T2 were analyzed.

Finally, the scores of the abovementioned 103 psychology students on T0 and T1 were compared with the scores of a control group. This control group consisted of 26 first-year students of another large university in the Netherlands who took the CSPT in the academic year 2005-2006. This control group took the CSPT twice. First, as freshmen, when they just started their bachelor study in psychology (T0). They took the CSPT a second time six months later in their first year, but without having received any training in counseling communication skills (T1). Unfortunately, it was not possible to gather useful comparison data for this group at T2, because these students received communication skills training in the second year of their study. Since the size of the control group is small, we emphasize that the scores on the CSPT of this group is interpreted with caution.

Biographical information

Seventy percent of the students were female. The mean age was 21 years (Sd = 3.1). For 69% of the students, university preparatory education was the highest education they completed prior to their study in psychology: this is the highest level of secondary education in The Netherlands. The remaining 31% had a degree either in higher professional education or in a university program other than psychology. Regression analyses showed no significant influences of gender, age and prior education on the CSPT-scores.

In the control group 96% of the students were female. The mean age was 22 years (Sd = 7.5), 69% had completed university preparatory education prior to their study in psychology and 31% had obtained a degree either in higher professional education or in a university program other than psychology. Regression analyses showed no significant influences of gender, age and prior education on the control group's CSPT-scores.

Results

To examine the scores of the students on the CSPT for each skill separately, we took the average score per student of the items assessing the same counseling communication skill. Accordingly, all students received a score between 0 and 2 on each counseling communication skill; a score of or near 0 is very low and a score of or near 2 is very high. For each skill interrater-reliabilities were computed. These reliabilities ranged from .81 to .93.

Between-group and within-group comparisons

The results of the between-group analysis and within-group analysis show a similar pattern. Therefore, we will discuss these results simultaneously. First, in both designs a multivariate analysis was performed. In the between-group design a general linear model multivariate analysis showed that the scores of freshmen, first-year students and second-year students differed significantly, *Hotelling's* $T = 87{,}260$, $p < .001$. In the within-group design a general linear model repeated measures analysis was carried out. The mean differences on all skills between the three measurements were significant at the .001-level.

Second, post-hoc analyses were performed to analyze the scores on all skills in more detail. In the between-group design the mean differences on each counseling communication skill between freshmen and first-year students and the mean differences on each counseling communication skill between first-year students and second-year students were analyzed with Student's independent-samples-T-test. In the within-group design the mean differences on each counseling communication skill between T0-T1 and T1-T2 were analyzed with Student's paired-samples-T-test. These students took the CSPT at all three times: as freshmen (T0), as first-year students (T1) and as second-year students (T2). Tables 1 and 2 show the results. In both analyses effect sizes (*d)* were calculated for each skill by taking the mean differences on each skill between T1 and T0, and between T2 and T1, and dividing it by the respective pooled standard deviations on this skill (Cohen, 1988, 1992). The effect sizes are reported in text in the next paragraphs, with an effect size of $d \leq .2$ representing a low, $d = .5$ a moderate and $d \geq .8$ a large effect (Cohen, 1988, 1992).

Table 1

Between group analysis. Means and standard deviations on the separate communication skills for freshmen (N = 102), first-year students (N = 206) and second-year students (N = 146), Total N = 454.

	FM		FY		SY		MD	MD
Basic skills	M	Sd	M	Sd	M	Sd	fy-fm	sy-fy
Minimal Encouragements	.02	.12	1.13	.63	1.33	.55	1.11**	.20**
Asking Questions	.71	.40	1.39	.36	1.32	.40	.68**	-.07
Paraphrasing	.34	.36	1.14	.39	1.20	.34	.80**	.06
Reflection of Feeling	.38	.36	1.05	.34	1.13	.39	.67**	.08
Concreteness	.35	.33	1.09	.43	1.26	.45	.74**	.17**
Summarizing	.04	.10	.83	.55	1.23	.54	.79**	.40**
Situation Clarification	.01	.04	.79	.65	1.00	.65	.78**	.21**
Advanced skills	M	Sd	M	Sd	M	Sd	fy-fm	sy-fy
Advanced Accurate Empathy	.01	.05	.09	.19	.63	.57	.08**	.54**
Confrontation	.11	.14	.27	.27	.75	.44	.16**	.48**
Positive Relabeling	.15	.27	.28	.37	1.14	.49	.13**	.86**
Examples of one's own	.04	.14	.04	.22	.38	.57	.00	.34**
Directness	.07	.17	.07	.20	.72	.66	.00	.65**

FM	=	Mean scores of the freshmen
FY	=	Mean scores of the first-year students
SY	=	Mean scores of the second-year students
MD fy-fm	=	Mean difference between the first-year students and the freshmen
MD sy-fy	=	Mean difference between the second-year students and the first year students
**	=	significant at .01 level

Table 2

Within group analysis. Means and standard deviations on the separate communication skills per time of measurement (T0, T1 and T2), N = 103.

	T0		T1		T2		MD	MD
Basic skills	M	Sd	M	Sd	M	Sd	T1-T0	T2-T1
Minimal Encouragements	.05	.18	1.32	.55	1.39	.52	1.27**	.07
Asking Questions	.78	.43	1.39	.37	1.32	.42	.61**	-.07
Paraphrasing	.46	.41	1.17	.30	1.25	.31	.69**	.08*
Reflection of Feeling	.41	.33	1.14	.30	1.16	.35	.73**	.02
Concreteness	.35	.36	1.11	.35	1.31	.40	.76**	.20**
Summarizing	.05	.12	.76	.55	1.30	.50	.71**	.54**
Situation Clarification	.01	.07	1.00	.66	1.16	.57	.99**	.16*
Advanced skills	M	Sd	M	Sd	M	Sd	T1-T0	T2-T1
Advanced Accurate Empathy	.02	.09	.13	.24	.66	.58	.11**	.53**
Confrontation	.10	.16	.19	.26	.72	.44	.09**	.53**
Positive Relabeling	.12	.21	.32	.45	1.17	.47	.20**	.85**
Examples of one's own	.02	.14	.14	.34	.40	.56	.12**	.26**
Directness	.00	.05	.15	.38	.80	.67	.15**	.65**

T0	=	Mean scores of the students as freshmen
T1	=	Mean scores of the students as first-year students
T2	=	Mean scores of the students as second-year students
MD T1-T0	=	Mean difference between the scores as first-year students and as freshmen
MD T2-T1	=	Mean difference between the scores as second-year students and as first-year students
*	=	significant at .05 level
**	=	significant at .01 level

The outcomes of both the between-group analysis and the within-group analysis show that freshmen scored very low to low on all the basic counseling communication skills with the exception of the skill *asking questions*. On this skill they have an average score of .71 and .78 respectively on a scale from 0-2.

In both analyses, first-year students scored significantly higher on all basic counseling communication skills in comparison with the freshmen. In the between-group analysis the highest mean difference between freshmen and first-year students was on the skill *minimal encouragements*. The mean differences on the other six basic counseling communication skills were almost equal. However, the highest effect size in the T1-T0 comparison was found for the skills *minimal encouragements, paraphrasing* and *reflection of feeling*, namely $d = 1.5$. Effect sizes on the other basic skills range from $d = 1.2$ (*situation clarification*) to $d = 1.4$ (*asking questions*). Also in the within-group analysis the highest mean difference between freshmen and first-year students was on the skill *minimal encouragements*. The highest effect size was found for this skill, $d = 2.1$. In the within-group analysis the second highest mean difference is on the skill *situation clarification.* The mean differences on the other five basic counseling communication skills are somewhat lower but still substantial. The second highest effect size was found for the skill *reflection of feeling*, $d = 1.7$. Effect sizes for the other five skills range from $d = 1.3$ (*asking questions* and *summarizing*) to $d = 1.5$ (*paraphrasing* and *situation clarification*). In both analyses first-year students attained the highest average score on the skill *asking questions* and the lowest average score on the skills *summarizing* and *situation clarification*.

Both Table 1 and Table 2 show that second-year students score significantly higher than first-year students on the skills *concreteness, summarizing* and *situation clarification*. In the between-group analysis these students also score higher than first-year students on the skill *minimal encouragements*. In the within-group analysis there is a subsequent significant mean difference on the skill *paraphrasing*. On this skill second-year students score higher than when they were first-year students. The highest mean difference between first-year and second-year students in both analyses was found on the skill *summarizing*. In both analyses this skill had the highest effect size; $d = .7$ in the between-group analysis and $d = .8$ in the within-group analysis. Effect sizes for the other six skills in both analyses range from $d = .2$ (e.g. *reflection of feeling* in table 2) to $d = .4$ (e.g. *concreteness* in both analyses).

As for the five advanced counseling communication skills the outcomes of both analyses show that freshmen and first-year students scored low. In the between-group analysis first-year students scored significantly higher than freshmen on the skills *advanced accurate empathy, confrontation* and *positive relabeling*. The effect sizes for these skills ranged from $d = .3$ (*positive relabeling*) to $d = .6$ (*confrontation*). In the within-group analysis the mean differences between T1 and T0 were significantly higher on all advanced counseling communication skills. Effect sizes ranged from $d = .3$ (*confrontation, examples of one's own* and *directness*) to $d = .4$ (*advanced accurate empathy* and *positive relabeling*). However, Tables 1 and 2 show that the mean differences on these skills were marginal.

Second-year students scored significantly higher than the first-year students on all advanced counseling communication skills in both analyses. In both between- and within-group analysis the highest mean difference between second-year and first-year students and the highest average score of second-year students was on the skill *positive relabeling*. For this skill the highest effect size was found in both analyses; $d = 1.3$ in the between-group analysis and $d = 1.4$ in the within-group analysis. The lowest mean difference and lowest average score is on the skill *examples of one's own*. For this skill also the lowest effect size was found in both analyses; $d = .7$ in the between-group analysis and $d = .6$ in the within-group analysis. Effect sizes for the other three skills in both analyses ranged from $d = 1.0$ (e.g. *directness* in Table 2) to $d = 1.2$ (e.g. *confrontation* in Table 1). In sum, all effect sizes on these skills are large, with the exception of the effect size on the skill *examples of one's own*, which has to be interpreted as a moderate effect (Cohen, 1988, 1992). Finally, both analyses point out that second-year students score higher on the basic counseling communication skills than on the advanced counseling communication skills. The exception is the average score on the advanced skill *positive relabeling* that practically equals the average scores on the basic skills. In both the between-group analysis and the within-group analysis the average score calculated over all seven basic counseling communication skills of second-year students is significantly higher than their average score calculated over all five advanced counseling communication skills, respectively, $t\ (145) = 18{,}1$; $p < .001$; $d = 1.5$, and, $t\ (102) = 16{,}4$; $p < .001$; $d = 1.6$.

Comparison with control group

The scores on the basic counseling communication skill at T0 and T1 of the 103 students described in the former section, to which we now will refer as the training group, were compared with scores on these skills of a control group of 26 first-year bachelor students in psychology of another Dutch university. This control group also took the CSPT at T0 and T1. Table 3 shows the results. For each counseling communication skill the mean differences between T0 and T1 were analyzed per group, using Student's independent-samples-T-test. These results are interpreted with caution because of the small size of the control group.

Both groups scored low on all the basic counseling communication skills at T0 with the exception of the score of the training group on the skill *asking questions.* On this skill they had an average score of .78. The difference between the average group scores on this skill at T0 was significant, t (127) = 3,45; p = .001; d = .7. The mean differences between both groups on the other six skills at T0 were not significant. Also, the overall average score on the seven basic counseling communication skills at T0 between the training group and the control group was not significant, d = .1. At T1 the training group scored significantly higher on all basic skills than the control group. The control group scored significantly higher on five basic skills at T1 than at T0, however these differences were marginal. The control group did not improve on the skills *minimal encouragements* and *situation clarification.* The mean differences between T1 and T0 on all skills were higher for the training group than for the control group. To examine whether these mean differences were significantly larger in the training group, the average scores on all seven skills of both groups were analyzed through general linear modeling, using the repeated measures analysis with time of measurement as a within-subject difference and whether or not training in counseling communication skills had been received as a between-subjects difference. Also the interaction between time of measurement and whether or not training had been received was analyzed. Table 3 shows that all within-subjects differences on the seven basic skills were significant. The between-subjects differences were also significant, except for the skill *paraphrasing*. The interactions between time of measurement and whether or not training had been received were also significant for all skills. In sum, the training group improved more on all seven basic counseling communication skills than the control group. For each skill, the effect size (d) was calculated by taking the

Table 3

Comparison with control group. Means and standard deviations on the separate basic communication skills for the training group (N = 103) and the control group (N = 26) at T0 and T1.

	Group	T0		T1		MD	F	F	F
Basic skills		M	Sd	M	Sd	T1-T0	Within	Between	IA
Minimal Encouragements	TG	.05	.18	1.32	.55	1.27**	125.72**	129.56**	125.72**
	CG	.03	.13	.03	.14	.00			
Asking Questions	TG	.78	.43	1.39	.37	.61**	60.49**	48.33**	8.37**
	CG	.46	.37	.71	.51	.25*			
Paraphrasing	TG	.46	.41	1.17	.30	.69**	68.02**	.19	19.12**
	CG	.61	.44	.81	.48	.20*			
Reflection of Feeling	TG	.41	.33	1.14	.30	.73**	114.70**	18.41**	27.60**
	CG	.40	.35	.65	.50	.25*			
Concreteness	TG	.35	.36	1.11	.35	.76**	81.53**	52.44**	34.45**
	CG	.20	.29	.36	.46	.16*			
Summarizing	TG	.05	.12	.76	.55	.71**	69.93**	7.90**	16.92**
	CG	.10	.18	.35	.47	.25*			
Situation Clarification	TG	.01	.07	1.00	.66	.99**	56.84**	59.08*	56.84**
	CG	.00	.00	.00	.00	.00			

TG	=	Training Group
CG	=	Control Group
T0	=	Mean scores of the students as freshmen
T1	=	Mean scores of the students as first-year students
MD T1-T0	=	Mean difference between the scores as first-year students and as freshmen
F Within	=	F-value of the within-subjects-differences
F Between	=	F-value of the between-subjects-differences
F IA	=	F-value of the interaction between time of measurement and receiving training or not
*	=	significant at .05 level
**	=	significant at .01 level

mean difference on each skill between the training group and the control group at T1 and dividing it by the pooled standard deviation on this skill of the control group (Glass, 1976). The highest effect size was found for the skill *minimal encouragements*, $d = 6.3$. The next highest effect size was found on the skill *concreteness*, $d = 2.1$. For the other skills lower but still large effect sizes were found; *asking questions*, $d = 1.4$, *paraphrasing*, $d = 1$, *reflection of feeling,* $d = 1.3$, and, *summarizing*, $d = 1.1$. Only the effect size for the skill *situation clarification* could not be calculated, because the mean score and standard deviation of the control group on this skill is zero. However, this skill had the second highest mean difference between the training group and the control group, the highest mean difference between these groups being on the skill *minimal encouragements*.

Discussion

In this article a study into the adequate use of the separate counseling communication skills was presented. Scores on the CSPT of several groups of psychology students were analyzed for each of seven basic counseling communication skills and five advanced counseling communication skills. The results show a similar pattern. The conclusion is that students who had received a training in basic counseling communication skills scored significantly higher on all seven basic skills than students who did not receive this training. Moreover, students who received a training in advanced counseling communication skills scored significantly higher on all five advanced skills than students who did not follow this training. These findings indicate that the CMT-method (Lang & Van der Molen, 1992) is effective in training counseling communication skills, which is in accordance with findings of several meta-analyses (Baker & Daniels, 1989; Baker et al., 1990; Daniels, 2003; Van der Molen et al., 1995). Furthermore, second-year students scored higher on the basic counseling communication skills than on the advanced counseling communication skills. A first explanation for this finding is that advanced counseling communication skills are more complex than basic counseling communication skills. A second explanation is that students are expected to repeat practicing the basic skills in the advanced course and therefore have developed more experience in the application of the basic counseling communication skills than in the application of the advanced counseling communication skills. All together, it seems that the adequate application of the basic

counseling communication skills is easier for the students than the application of the advanced counseling communication skills.

The data presented in this study give insight into the increase of student's performance in counseling communication skills after two courses in which CMT is used. However, two questions remain. First, what are the implications of the results as for the learning processes for the students? The second question concerns the validity of CMT: is a counselor educated by means of this method more effective in helping clients than a helper educated in another manner? Although this study was not set up to answer these two questions, there are some studies that addressed these issues.

As in other studies (e.g. Bögels, 1994; Evans, Coman & Burrows, 1989; Evans, Sweet & Coman, 1993; Gask, 1998; Toriello & Strohmer, 2004) the data from this study suggest that the learning process of the students is facilitated by CMT. For each separate counseling communication skill the logical order of giving theoretical information, modeling, exercising the skill and being provided with student-tailored feedback leads to substantial improvements in the mastery of these skills. Moreover, to make an inventory of individual learning experiences of a course in basic micro-counseling skills for dentistry students, Van der Molen, Klaver & Duyx (2004) used a Learner Report (De Groot, 1974). In a Learner Report trainees describe the effects of such a training on their knowledge about themselves (e.g. 'I have learnt that I …'). In this study the trainees reported increased insights in their own capacities (e.g. 'I have learnt that I can structure an interview.') and in their own limitations (e.g. 'I have learnt that I have not always patience for a patient.'). Other studies (e.g. Bennett, 1981; Crute, 1986; Schaefle, Smaby, Maddux & Cates, 2005) report that trainees appreciated the training method because it is systematic and directed at specified helper behaviors.

As for the second question, several investigations have been conducted into effects of microcounseling training on client outcomes. Sharpley and Guiddara found that high client ratings of counselors were associated with the adequate use of micro-skills. Other studies found high positive correlations between the adequate use of microskills and patient satisfaction (Bensing, 1991; Bensing & Dronkers, 1988; Bögels, 1994), patient self-disclosure in a diagnostic interview (Verhaak, 1988) and establishing a credible relationship with clients (Toriello & Strohmer, 2004). Based on these findings we assume that students, who have followed both courses in counseling communication skills, as described in this study, are able to create conditions neces-

sary for a productive counselor-client relationship. Both courses deal with the first two stages of the model of Egan (1975, 1994); problem clarification and gaining new insights. However, students do not practice the third stage of Egan's model, strategies for treatment, necessary for successfully helping a client. We emphasize that more specialized training is needed to become an experienced and successful counselor.

Limitations of the Study

One important limitation of our study is the small size of the control group in comparison with the size of the training group. The main reason for the small number of students in the control group was that it proved to be very difficult to motivate them to participate two times in the time consuming CSPT.

Another limitation is that no scores on the counseling communication skills were available from experts. Therefore, it is not known how the students' scores on these skills relate to scores on these skills of professionals.

Future Research

First, this study should be replicated with more subjects in the control group. Second, to deal with the above-mentioned limitation, it is recommended to administer the CSPT to a group of professional counseling psychologists. By comparing the mean scores it would be possible to acquire more insight into the degree of professionalism reached by the second-year bachelor students. We expect that the average scores of professional counseling psychologists on the separate skills are higher than the average scores of the second-year students, because they have more experience in the application of these skills in real counselor-client relationships.

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Chapter 4

Mastery of Counseling Communication Skills Does Intelligence matter? [1]

[1] This chapter is submitted for publication as:

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Abstract

Insight in the influence of intelligence on the mastery of counseling communication skills is important for improving the microcounseling method, an effective training program for acquiring these skills. The aim of this study was to analyze whether verbal, spatial and numerical intelligence predict the mastery of counseling communication skills. The level of verbal, spatial and numerical intelligence of 159 bachelor psychology students was determined. The participants also took the Communication Skills Progress Test (CSPT), a video test for the assessment of the level of mastery of counseling communication skills. They took the CSPT three times: first, before following a training in communication skills, second, after a training in basic communication skills and finally after a training in advanced communication skills. After the training in basic counseling communication skills participants improved most in the mastery of the basic skills and after the course in advanced counseling communication skills they showed most progress in the mastery of the advanced skills. However, verbal, spatial and numerical intelligence were no significant predictors for the mastery of counseling communication skills. The level of intelligence, whether verbal, spatial or numerical, does not matter for the mastery of counseling communication skills. So, it seems that psychology students can acquire these skills irrespective of their intelligence. A limitation of the study, however, is that the group of participants used in this study was rather homogeneous, which may have precluded finding significant relationships between intelligence factors and the mastery level of counseling communication skills.

Nowadays there is reasonable consensus that intelligence is the best predictor of work performance, based on the outcomes of several longitudinal studies (Gottfredson, 1997, 2000; Keating, 1987; Lubinski, 2000, 2004; Murphy, 1989; Schmidt & Hunter, 2004; Thorndike, 1985) and meta-analyses (Hunter & Hunter, 1984; Kuncel, Hezlett & Ones, 2004; Schmidt & Hunter, 1998). Furthermore, in 1969 Fox, Taylor and Caylor demonstrated convincingly that general intelligence also predicts training success. Students and soldiers scoring high on general intelligence tests learned more from the same training program than persons scoring low on general intelligence. This finding was confirmed by more recent studies (Gottfredson, 2000; Ree & Earles, 1991) and the meta-analysis of Schmidt and Hunter (1998). Apart from being an unsurpassed predictor of work performance, general intelligence also is the best predictor of training success.

Many psychology curricula have training programs in counseling communication skills, because the mastery of these skills is one of the requirements to be considered for the diploma of a registered European psychologist (European Federation of Psychology Associations (EFPA), 2006). A successful training method for the acquisition of these skills is microcounseling (Daniels & Ivey, 2007; Ivey, 1971; Ivey & Authier, 1978; Ivey & Bradford-Ivey, 2007). Several studies (e.g. Bögels, 1994; Evans, Coman & Burrows, 1989; Evans, Sweet & Coman, 1993; Gask, 1998; Toriello & Strohmer, 2004) and meta-analyses (Baker & Daniels, 1989; Baker, Daniels & Greeley, 1990; Daniels, 2003; Van der Molen, Smit, Hommes & Lang, 1995) found large overall effect sizes for this method. However, studies investigating whether intelligence predicts success in communication skills training are scarce. Nonetheless, understanding the possible effect of intelligence on the mastery of these skills could help improve training programs for the acquisition of these skills. Therefore, the focus of this study is on intelligence as predictor of the mastery of counseling communication skills after a basic and advanced training in these skills.

After Spearman's distinction between general intelligence or the *g*-factor and specific intelligence or the *s*-factor (Spearman, 1904, 1914), intelligence research primarily has concentrated on tests for general intelligence, because this was thought to be the best indicator of someone's true intelligence (Gottfredson, 2000). However, since the second half of the 20th century researchers also attended to more specific abilities, for instance verbal intelligence or spatial intelligence. Specific job demands, e.g. bookkeeping, not only appeal to general intelligence, but also to specific abilities,

e.g. numerical intelligence (Gottfredson, 2000; Lubinski, 2004). According to Lubinski (2004) general intelligence can be divided into three more specific ability domains: verbal, spatial and numerical intelligence. The aggregation of these three separate abilities should give a good impression of someone's general intelligence. In this study we will maintain Lubinski's distinction investigating verbal, numerical and spatial intelligence as predictors of the mastery of counseling communication skills.

Only a few studies have investigated these relationships. These studies have concentrated mostly on the correlation of verbal intelligence with communication skills. For instance, verbal intelligence admission tests predicted medical students' mastery of communication skills (Kulatunga-Moruzi & Norman, 2002). Chiat and Roy (2008) found that well-developed verbal intelligence at early age predicts well-developed communication and social skills later on in life. Finally, Smit (1995) found that students scoring high on verbal intelligence also scored higher on behavioral tests for counseling communication skills.

Students in this study followed a microcounseling training program in counseling communication skills, also known as microskills (Daniels & Ivey, 2007; Ivey, 1971; Ivey & Authier, 1978; Ivey & Bradford-Ivey, 2007; Lang & Van der Molen, 2004). This means that the complex skill of professionally interviewing a client is unraveled into small meaningful counseling communication skills. Following Ivey and Authier (1978) and Egan (1975, 1994) Lang and Van der Molen distinguished seven basic counseling communication skills, namely minimal encouragements, asking questions, paraphrasing, reflection of feeling, concreteness, summarizing and situation clarification and five advanced skills, namely advanced accurate empathy, confrontation, positive relabeling, examples of one’s own and directness.

These skills fit within Egan's helping model of three stages: (1) problem clarification, (2) gaining new insights and (3) strategies for treatment (Egan, 1975, 1994). The goal of the first stage is to clarify the problem of the client. In this stage helpers mainly use the basic counseling communication skills. During the second stage, gaining new insights, helpers try to have clients gain new insights in their situation, predominantly using the five advanced counseling communication skills. Finally, in the third stage, strategies for treatment, client and helper seek strategies to solve the client's problems.

The basic counseling communication skills are often taught in the first or second bachelor year of a psychology curriculum and the advanced counseling com-

munication skills in consecutive years. Subjects of the present study were psychology students who in their first bachelor year followed a course in basic counseling communication skills and in their second bachelor year a course in advanced counseling communication skills. These courses were built up according to the Cumulative Microtraining (CMT) method (Lang & Van der Molen, 1992). In this method students first receive theoretical instruction about one counseling communication skill (e.g. summarizing) and its function in a professional interview. Next, video clips show examples of inadequate and adequate performance of the skill to the students (modeling). Subsequently, students exercise the skill separately (like 'dry swimming'). For instance, with regard to the basic skill 'asking questions', students have to try to change a closed question ('Do you feel sad?') into an open question ('How do you feel?'), after which they practice the skill in a role-play with another student. Finally, fellow students and the trainer give feedback on the student's performance in the role-play and the student formulates learning points according to this feedback. While students practice one or two new skills in each session, CMT's ultimate purpose is to integrate the communication skills that have been dealt with up to that moment in the training program. Both courses aim at increasing the students' adequate application of the (basic or advanced) counseling communication skills.

Kuntze, Van der Molen and Born (2007, 2008) developed the Counseling Communication Skills Progress Test (CSPT) to assess the students' adequate use of both the basic and advanced counseling communication skills. They found that the CSPT has high reliability and high discriminant power. Furthermore, they found two dimensions underlying the CSPT, the Basic Skill Factor (BSF), consisting of items that assess the basic counseling communication skills and the Advanced Skill Factor (ASF), composed of items for the advanced communication skills. After the course in basic counseling communication skills students improved most on the BSF and after the course in advanced communication skills they showed most progress on the ASF. We refer to Kuntze et al. (2007) for a detailed evaluation of the CSPT.

According to the findings of Smit (1995), Kulatunga-Moruzi and Norman (2002) and Chiat and Roy (2008) who found positive relationships between verbal intelligence and communication skills, we expect verbal intelligence to predict the mastery of counseling communication skills. We expect that spatial and numerical intelligence do not predict the mastery of counseling communication skills.

Method

Participants

A total of 159 bachelor students of a psychology curriculum at a large Dutch university participated in this study. The average age of the students was 19 (Sd = 3.4) and 86 percent finished University Preparatory Education, the highest level of secondary education in The Netherlands, before starting their study in psychology. The other 14% had a degree either in a university program other than psychology or in Higher Professional Education. Eighty-one percent of the participants were female. Gender, age and prior education had no significant influences on the CSPT-scores.

Instruments

Word Matrix (WM)

The WM is part of a Dutch intelligence test battery, the Groninger Intelligence Test (Kooreman & Luteijn, 1987). It is a verbal analogies test and assesses verbal intelligence. It consists of 20 items and measures to what extent participants can reason with words. They have to determine how words are related, for instance 'Cow is to calf, as horse is to…'. Participants have 10 minutes for answering the 20 items, the authors report a split-half reliability of .79 and a Cronbach's α of .79.

Test for Non-Verbal Abstraction (TNVA).

The TNVA (Drenth, Van Wieringen & Hoolwerf, 2001) assesses spatial intelligence. It consists of 40 items. Each item shows four figures with a sort of resemblance. The participant has to choose, out of six other figures, those two that are most similar to the first four figures. Participants have 20 minutes to answer the items. The items gradually increase in difficulty. For this test the authors found a stability coefficient of .81 and a split-half reliability of .77.

Numeric series (NS)

Numerical series (Drenth et al., 2001) estimates the participants' numerical intelligence. It has 26 items, each presenting a series of numbers. The participant has to choose from four numbers, which number logically follows the last number of the series. For instance:

Test item:	*1, 3, 6, 10, 15, 21, ?*
Possible answers:	*26, 27, 28, 29, 30.*

The test takes 30 minutes and for this test the authors report a stability coefficient of .87 and a split-half reliability of .73

Counseling Communication Skills Progress Test (CSPT).

The counseling communication skills progress test (Kuntze et al., 2007) is a video based behavioral test, established according to the results of Smit and Van der Molen (1996a, 1996b, 1996c), who investigated different methods for the assessment of communication skills. The CSPT assesses the participants' level of mastery of the communication skills. It has forty-two items. Each item is a video clip in which a client, played by an actor, tells something concerning his or her problem. After watching each clip participants write down literally what they would say to the client, having received the instruction to use a communication skill (e.g. 'Give a paraphrase in an appropriate manner').

The first 30 items assess the level of mastery of the seven basic communication skills and the next twelve items the level of mastery of the five advanced communication skills. The number of items for the assessment of the basic skills is higher than the number of items for the assessment of the advanced skills, because there are more basic skills than advanced skills and that the assessment of an advanced skill takes more time than the assessment of a basic skill.

Three trained assessors using an instruction guide developed for the assessment of the application by the students of every communication skill evaluated the participants' answers. This guide is based on the skill definitions in Lang and Van der Molen (2004) and on expert counselors' specifications for the requirements of an adequate answer, a moderately adequate answer and an inadequate answer. Students acquired two points for an adequate answer, one point for a moderately adequate answer and zero points for an inadequate answer. In the end mean scores can be calculated on the Basic Skill Factor (BSF) and the Advanced Skill Factor (ASF), the two underlying dimensions of the CSPT. The range of the scores on these two dimensions is 0-2.

In order to control for testing effects two comparable versions of the CSPT were developed. There were no significant differences in the students' scores between

these two versions. Cronbach's α for both versions was high (.91 and .92) and inter-rater reliabilities ranged between .89 and .97 (Kuntze et al., 2007).

Procedure

Participants took the three intelligence tests in their first year of the bachelor psychology curriculum. They received the CSPT three times during the first two consecutive years of the curriculum. First, at the start of their study psychology as freshmen, roughly three weeks after the start of the academic year (T0), second, six months later in their first year, just after they had followed a course in basic communication skills (T1) and third, after six months in their second year, when they just had finished a course in advanced communication skills (T2). The basic counseling communication skills training consists of five sessions, spread over five weeks and the advanced counseling communication skill training has four sessions, spread over four weeks. The first year and second year students took the CSPT as a formal examination after respectively the course in basic communication skills and the course in advanced communication skills. Minimal scores to pass the examination were determined for both groups.

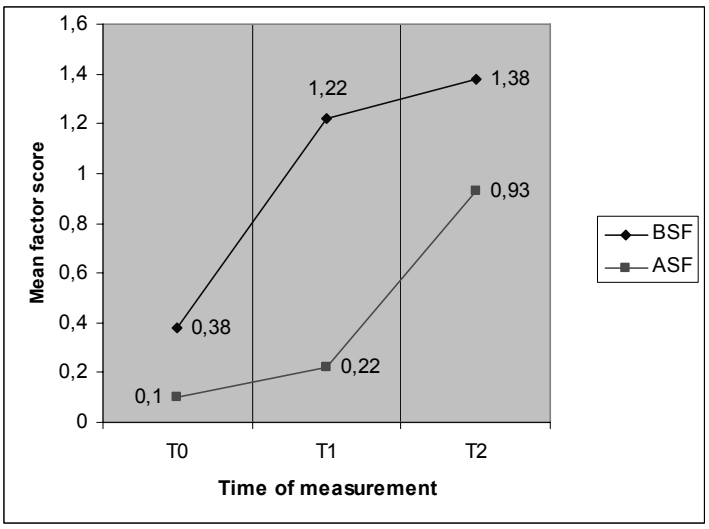
The freshmen randomly received one of the versions of the CSPT. The first year students took the version of the CSPT they had not received when they were a freshman and the second year students received the version of the CSPT they did not take when they were a first year student.

Results

First, the mean scores of the students on both dimensions of the CSPT, the BSF and the ASF, at T0, T1 and T2 were analyzed using a repeated measures analysis. The mean scores on T0, T1 and T2 on the BSF were respectively .38, 1.22 and 1.38. The mean scores on the ASF on T0, T1 and T2 were respectively .1, .22 and .93. Figure 1 displays these results.

For both factors, BSF and ASF, correlations between the scores on T0, T1 and T2 ranged from .03 to .14 (all n.s.). This suggests that the progress in mastering the basic and advanced communication skills is not dependent on the scores of the students at T0. The within-subjects differences on both the Basic Skill Factor and the Advanced Skill Factor were significant across time, respectively, $F\,(1) = 1079.5$; $p < .001$, and, $F\,(1) = 670.9$; $p < .001$.

Figure 1. Mean factor scores on the Basic Skill Factor (BSF) and the Advanced Skill Factor (ASF) per time of measurement (T0, T1 and T2); N = 159.



Students improved most on the Basic Skill Factor after following the basic communication skills training. The effect size (*d*) was 3.0. This is a very large effect according to Cohen (1988, 1992). It was calculated by taking the mean difference on the Basic Skill Factor between T1 and T0 and dividing it by the pooled standard deviation on this factor (Cohen, 1988, 1992). Students showed most progress on the Advanced Skill Factor having received the course in advanced communication skills, $d = 2.0$, which also is a very large effect. Between T0 and T1 students showed moderate progress on this factor, $d = .6$, but it is still significant. Between T1 and T2 students also improved moderately on the BSF, $d = .5$. These results are a replication of the findings of Kuntze et al. (2007).

Next, regression analyses were performed to investigate whether verbal, spatial and numerical intelligence could predict the mastery of the basic and advanced skills. Because of the high number of regression analyses a significance level of .01 was used. Table 1 shows the results.

Table 1

Regression coefficients of verbal, spatial and numerical intelligence as predictors of scores on the Basic Skill factor (BSF) and the Advanced Skill Factor (ASF) per measurement (T0, T1 en T2; N=159)

	BSF - T0		ASF - T0		BSF - T1		ASF - T1		BSF - T2		ASF - T2	
	β	*p*	*β*	*p*	*β*	*p*	*β*	*p*	*β*	*p*	*β*	*p*
Verbal intelligence	.00	.78	.01	.87	.13	.14	.05	.56	-.12	.17	.15	.07
Spatial intelligence	.00	.41	.08	.39	.05	.55	.03	.77	.05	.6	-.08	.37
Numerical intelligence	.00	.48	-.07	.41	.01	.95	.14	.1	.08	.33	.00	.96

As can be seen from Table 1, standardized regression weights of verbal intelligence range from -.12 (BSF on T2; $p = .17$) to .15 (ASF on T2; $p = .07$). Standardized regression weights of spatial intelligence ranged from -.08 (ASF on T2; $p = .37$) to .08 (ASF on T0; $p = .39$) and of numerical intelligence from -.07 (ASF on T0; $p = .41$) to .14 (ASF on T1; $p = .1$). None of these standardized regression weights was significant. This means that none of the specific intelligences is a significant predictor of the mastery of counseling communication skills.

Finally, regression analyses were performed to investigate if the progress on the BSF and ASF could be predicted by verbal, spatial or numerical intelligence. For both factors contrast scores were calculated. The scores on T0 were subtracted from T1 and the scores on T1 from T2. These contrast scores were put in a regression analysis as criterion scores and the scores on the WM, TNVA and the NS as predict-tors. The results are displayed in Table 2. Again, since the number of regression ana-lyses is high, a significance level of .01 was used.

Table 2 shows that verbal, spatial and numerical intelligence do not signify-cantly predict improvement on the Basic Skill Factor or on the Advanced Skill Factor. Standardized regression weights ranged from -.18 (verbal intelligence on BSF T2-T1; $p = .03$) to .16 (numerical intelligence on ASF T1-T0; $p = .06$). Contrary to our expec-tation, verbal intelligence did not have an influence on training success of counseling communication skills. Also spatial and numerical intelligence did not predict training success in these skills.

Table 2

Regression coefficients of verbal, spatial and numerical intelligence as predictors of progress on the Basic Skill Factor and on the Advanced Skill Factor (N =159)

	BSF T1-T0		BSF T2-T1		ASF T1-T0		ASF T2-T1	
	β	*p*	*β*	*p*	*β*	*p*	*β*	*p*
Verbal intelligence	.08	.32	-.18	.03	.04	.67	.12	.16
Spatial intelligence	-.01	.91	-.01	.95	-.02	.86	-.09	.32
Numerical intelligence	.05	.57	.06	.49	.16	.06	-.08	.37

BSF T1-T0	Contrast score on the Basic Skill Factor between T0 and T1
BSF T2-T1	Contrast score on the Basic Skill Factor between T1 and T2
ASF T1-T0	Contrast score on the Advanced Skill Factor between T0 and T1
ASF T2-T1	Contrast score on the Advanced Skill Factor between T1 and T2

Discussion

The main aim of this study was to investigate whether the mastery level of counseling communication skills could be predicted by verbal, spatial and numerical intelligence. It was expected that verbal intelligence would positively, and that spatial and numerical intelligence would not relate to the level of mastery in these skills.

The change in mastery level of counseling communication skills after following a microcounseling training program in these skills was analyzed beforehand. Not surprisingly, students show most progress in their application of basic counseling communication skills after a course in these basic skills. After following a training in advanced counseling communication skills students improve most in using these advanced skills. These findings correspond with the results found in the study of Kuntze et al. (2007) and with effects reported by several meta-analyses (Baker & Daniels, 1989; Baker et al., 1990; Daniels, 2003; Van der Molen et al., 1995).

Then, related to the main aim of the present study, the relationship between verbal, spatial and numerical intelligence and the mastery level of counseling communication skills was investigated. Contrary to our hypothesis, we did not find a relationship between verbal intelligence and the mastery level of counseling communication skills. Moreover, there were no significant correlations between spatial and numerical intelligence and this dependent variable.

The zero finding with respect to the expected relationship between verbal intelligence and the mastery level of counseling communication skills is surprising, because in other studies positive relationships have been found between these constructs (Chiat & Roy, 2008; Kulatunga-Moruzi & Norman, 2002; Smit, 1995). An explanation for this finding can be the homogeneity of the group of participants in this study. The scores on the verbal intelligence test of this group have a relatively high average and a relatively small variance. In the professional manual of the *Word Matrix* test Kooreman and Luteijn (1987) report an average score of 10.7 with standard deviation of 3.7 for the reference group, a cross section of the Dutch population. The minimum possible score is 0 and the maximum possible score is 20. The average score for the group of participants in our study, existing of psychology students, was 14.5 with a standard deviation of 2.0. Therefore, possibly the verbal intelligence of our sample was too high and the variance too small (restriction of range) to find relationships that might exist in a more varied student population, as was investigated by Smit (1995). She had discriminated between verbal intelligence levels of groups of psychology students and students from higher vocational studies such as accountancy, and business & administration; the latter two groups also had lower mean scores on verbal intelligence than the psychology students. In that study she found a correlation of .45 between verbal intelligence and the mastery level of counseling communication skills.

With respect to spatial and numerical intelligence, the most logical explanation for these non-significant findings is that these two domains are very different from the domain of counseling communication skills. If that is the case, scoring high or low on spatial or numerical intelligence is not important for adequately applying counseling communication skills.

The most positive evaluation of our findings, however, is that these are encouraging for future generations of psychology students. The mastery level of counseling communication skills does not seem to depend on their level of intelligence. It seems that every psychology student can master counseling communication skills, which are important in the professional practice of a counseling psychologist.

Limitations of the Study

As mentioned above, the most important limitation of this study is the homogeneity of the group of participants. A more heterogeneous sample would give more insight in

the relationship between particularly verbal intelligence and the level of mastery in counseling communication skills. Another limitation is the modest number of subjects.

Future Research

Future research should reiterate this study and use a more heterogeneous sample with more participants. Further, it is recommended to investigate whether other variables are possible moderators between intelligence and the mastery level of counseling communication skills. For instance, study motivation could moderate the relationship between intelligence and the acquisition of these skills.

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Chapter 5

Mastery of Counseling Communication Skills. How important is Personality? [1]

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Abstract

The mastery of communication skills is considered to be important in many behavioral professions. This study investigated whether personality factors are related to the mastery of these skills, using the broad big-five factors extraversion, agreeableness, conscientiousness, emotional stability and autonomy and a narrow trait measure of assertiveness as predictors.

The mastery level of counseling communication skills of 143 first and second year undergraduates in a psychology curriculum was assessed with the Communication Skills Progress Test (CSPT), a video test. The participants took the CSPT three times: (1) before following a training in communication skills, (2) after a training in basic communication skills and (3) after a training in advanced communication skills. The participants also filled out the Five Factor Personality Inventory, a questionnaire for the assessment of the big-five factors, and the Scale for Interpersonal Behavior, a measure for assertiveness.

Participants showed most progress in the mastery of the basic skills after the course in these skills and improved most in the mastery of the advanced skills after a training in these skills. However, no significant relationships were found between any of the personality predictors and the mastery of counseling communication skills.

The personality factors used in this study are not related to successfully completing a counseling communication skills training program. This seems to imply that students with different personality profiles might be able to become skilled counselors.

One of the aims of personality research is to improve procedures for counseling, educational methods and personnel selection. Therefore, during the past decade many researchers have been interested in using personality measures to predict job and academic performance (e.g. Burke & Witt, 2004; Chamorro-Premuzic & Furnham, 2003a; Chamorro-Premuzic & Furnham, 2003b; Diseth, 2003; Judge & Bono, 2000; LePine & Van Dine, 2001; Paunonen & Ashton, 2001; Riggio & Taylor, 2000). Meta-analyses suggest that some personality factors, for instance conscientiousness, extraversion and need for achievement, are reasonably good predictors for job or academic performance (e.g. Barrick & Mount, 1991; Barrick, Mount & Judge, 2001; Dudley, Orvis, Lebiecki & Cortina, 2006; Hough, Eaton, Dunnette, Kamp & McCloy, 1990; Judge, Bono, Ilies & Gerhardt, 2002; Ones & Viswesvaran, 1996). However, critics point out the low validity of personality measures for predicting performance (e.g. Hurtz & Donovan, 2000; Morgeson, Campion, Dipboye, Hollenbeck, Murphy & Schmitt, 2007). So, discussion remains about the usefulness of personality factors for the prediction of performance.

One of the major issues in predicting job or academic performance is whether broad factor measures are preferred to narrow trait measures. Ones and Viswesvaran (1996) concluded that broad personality measures predict and explain performance better than narrow trait measures. In response to this conclusion, Paunonen, Rothstein and Jackson (1999) argued that job performance prediction benefits from using narrow personality predictors or narrow criteria instead of using their broader counterparts. Similarly, Dudley et al. (2006) suggested in their meta-analysis that narrow traits of conscientiousness, such as need for achievement, predict job performance better than the broad big-five factor conscientiousness. Finally, Paunonen and Ashton (2001) evaluated both the broad higher-level factors conscientiousness and openness to experience and the lower level trait measures need for achievement and need for understanding as predictors for academic performance. They found that the lower level measures predicted course grades better than the broader higher-level factors.

The present study investigates the prediction of performance using the broad big-five factors extraversion, agreeableness, conscientiousness, emotional stability and autonomy and a narrow trait measure of assertiveness as predictors. The focus in this study is on the prediction of students' mastery of counseling communication skills.

Mastering oral communication skills is one of the requirements that lead to the diploma of a registered European psychologist (European Federation of Psychology Associations (EFPA), 2006). Therefore many psychology curricula give attention to training counseling communication skills. An effective training program for acquiring counseling communication skills is the microcounseling method (Daniels & Ivey, 2007; Ivey, 1971; Ivey & Authier, 1978; Ivey & Bradford-Ivey, 2007). Different studies (e.g. Bögels, 1994; Evans, Coman & Burrows, 1989; Evans, Sweet & Coman, 1993; Gask, 1998; Toriello & Strohmer, 2004) and meta-analyses (Baker & Daniels, 1989; Baker, Daniels & Greeley, 1990; Daniels, 2003; Van der Molen, Smit, Hommes & Lang, 1995) reported large overall effect sizes for his training method. However, studies about the relationship between personality factors and the mastery of communication skills are scarce. Yet, knowledge about the influence of personality factors on the mastery of these skills can be used to improve training programs for the acquisition of these skills.

The results of the few studies into the relationship between personality factors and communication skills are mixed. For instance, Smit (1995) found non-significant correlations between on the one hand the big-five factors extraversion, agreeableness, conscientiousness, emotional stability and autonomy and on the other hand the adequate use of communication skills. Hommes (2006) found no relationship between self-efficacy and the level of mastery of communication skills after a training in these skills. However, Riggio and Taylor (2000) reported a significant negative correlation between an instrument that measures a person's tendency to be closed-minded and rigid on the one hand and a self-report measure of basic communication skills on the other hand. Kukulu, Buldukoglu, Kulakac and Koksal (2006) found a positive relationship between self-report measures of assertiveness and communication skills.

In this study we investigate the relationship between personality factors and the mastery of counseling communication skills by students who have followed a microcounseling training program in counseling communication skills (Kuntze, Van der Molen & Born, 2007, in press). We examine whether the finding of Paunonen and Ashton (2001) that lower level personality measures predict academic performance better than higher level personality measures, also holds in the field of the acquisition of counseling communication skills. Therefore we collected data on the big-five factors extraversion, agreeableness, conscientiousness, emotional stability and autonomy and on a measure for the lower level trait of autonomy, assertiveness. Persons

scoring high on assertiveness are often characterized as experiencing little social anxiety and performing adequately and frequently in interpersonal behavior (Arrindell, Bridges, Van der Ende, St. Lawrence, Gray-Shellberg, Harnish, Rogers & Sandermann, 2001; Arrindell, Sanderman, Hageman, Pickersgill, Kwee, Van der Molen & Lingsma, 1990; Arrindell, Van der Ende, Sanderman, Oosterhof, Stewart & Lingsma; 1999). Consequently, assertiveness is often associated with having adequate social skills (Arrindell et al., 1999). Therefore, and because of the positive relationship found by Kukulu et al. (2006) between assertiveness and self-reported experience in communication skills, this study examines whether assertiveness has a positive relationship with the mastery of counseling communication skills. We assessed the mastery level of counseling communication skills of first and second year undergraduates in a psychology curriculum who followed respectively a basic and advanced training program in these skills. The students' mastery of these skills was assessed with a behavioral measure, namely a video test.

The counseling communication skills that are dealt with in these training programs are also known as microskills (Daniels & Ivey, 2007; Ivey, 1971; Ivey & Authier, 1978; Ivey & Bradford-Ivey, 2007; Lang & Van der Molen, 2004). Ivey disentangled the complex skill of professionally interviewing a client into small meaningful counseling communication skills, e.g. concreteness or paraphrasing. Table 1 shows an overview of these microskills.

Table 1

Communication skills in the CSPT as defined in Lang & Van der Molen (2004)

Basic skills	Advanced skills
Minimal Encouraging	Advanced accurate empathy
Asking Questions	Confrontation
Paraphrasing	Positive Relabeling
Reflection of feeling	Examples of one's own
Concreteness	Directness
Summarizing	
Situation Clarification	

The counseling communication skills, displayed in Table 1, fit within the helping model developed by Egan (1975, 1994). This model consists of three stages: (1) problem clarification, (2) gaining new insights, and (3) strategies for treatment. The first stage, problem clarification, aims at clarifying the clients' problem. The second stage, gaining new insights, aims at helping clients gain new insights in their situation. Having discussed the problem(s) in the first and second stage, the client and helper formulate strategies to solve these problems in the third stage, namely strategies for treatment. The seven basic communication skills are mainly used in the first stage, the five advanced communication skills in the second stage.

Psychology curricula often provide a course in basic communication skills in the first or second bachelor year and a course in advanced communication skills in consecutive years. The psychology students who were participants in the present study received a basic communication skills training in their first bachelor year and an advanced communication skills training in their second bachelor year. These training programs were developed according to the Cumulative Microtraining (CMT) method (Lang & Van der Molen, 1992). First, students receive theoretical instruction about one communication skill (e.g. asking questions) and its function in a professional interview. Second, students observe video clips showing examples of inadequate and adequate performance of the skill (modeling). Third, students practice the skill separately. Then the skill is exercised in a role-play with another student after which fellow-students and the trainer give feedback on the student's performance. Finally, students formulate learning points according to the feedback they received. In the next session students concentrate on these learning points and practice a new communication skill. In the CMT, the training gradually increases in complexity. In each training session one or two new skills are trained; however, the main aim of this method is to integrate the communication skills that have been dealt with up to that moment in the training program. Both courses intend to increase the adequate use of the (basic or advanced) communication skills of the students.

To investigate whether this goal is realized, Kuntze et al. (2007) have developed the Counseling Communication Skills Progress Test (CSPT). They concluded that the reliability of the CSPT is high and that it discriminates well between groups of trainees that are supposed to differ in their mastery of the communication skills. Following Egan (1975, 1994), Kuntze et al. (2007) divided these skills in basic communication skills and advanced communication skills. Factor analysis on the items of

the CSPT revealed two dimensions. One dimension consisted of items assessing the basic communication skills and was labeled the Basic Skill Factor (BSF). The other dimension consisted of items assessing the advanced communication skills and was called the Advanced Skill Factor (ASF). As expected, students showed most progress on the BSF having received the training in basic communication skills and improved most on the ASF having received the training in advanced communication skills.

In the present study the relationship between on the one hand the big-five personality factors and assertiveness and on the other hand the mastery of the basic skills and the advanced skills is investigated. Combining the findings of Paunonen and Ashton (2001), who found that lower level measures predict performance better than broad personality factors, and Kukulu et al. (2006), who discovered a positive relationship between communication skills and assertiveness, we expect the lower level trait assertiveness to predict the mastery of communication skills better than the broad big-five personality factors extraversion, agreeableness, conscientiousness, emotional stability and autonomy. Moreover, we expect a significant positive relationship between assertiveness and the mastery of communication skills.

Method

Participants

Participants in this study were 143 bachelor students of a psychology curriculum at a large Dutch university. Eighty-three percent were female and the average age was 19 years (Sd = 3.6). Eighty percent of the students completed University Preparatory Education before starting their study in psychology: this is the highest level of secondary education in The Netherlands. The remaining 20% had a degree either in Higher Professional Education or in a university program other than psychology. Regression analyses showed no significant influences of gender, age and prior education on the CSPT-scores.

Measures

Five Factor Personality Inventory (FFPI).

The FFPI (Hendriks, Hofstee & De Raad, 1999) was used to assess the participants' level on the broad big-five personality factors extraversion, agreeableness, conscientiousness, emotional stability and autonomy. It consists of 100 items containing descriptions of various behaviors. The respondents have to indicate how accurate each

item describes them (ranging from 1 'very inaccurate' to 5 'very accurate'). The α reliabilities of these five factors as measured by the FFPI range from .81 (Autonomy) to .86 (Extraversion).

Scale for Interpersonal Behavior (SIB).

The SIB (Arrindell, De Groot & Walburg, 1984) was used as a narrow trait measure for assertiveness. The SIB is a widely used, multidimensional self-report measure of assertiveness and assesses two aspects of the participants' interpersonal behavior, namely anxiety in social situations and frequency of assertive behavior. The SIB consists of 50 statements, e.g. 'Saying you are sorry when you have made a mistake'. Subjects evaluate each statement on two separate five-point Likert-type scales: one for the amount of anxiety subjects experience when performing social behavior in different social situations (ranging from 1 'not at all' to 5 'extremely') and the other for the frequency of engaging in social behavior (ranging from 1 'I never do' to 5 'I always do'). By summing the scores on all 50 items, overall assertiveness scores for anxiety and frequency of performance are obtained. Persons scoring low on anxiety in social situations and scoring high on frequency of engaging in social behavior are considered to be assertive, whereas persons scoring high on anxiety and scoring low on frequency are considered to be non-assertive. The α reliabilities for the scales from the SIB range from .81 to .95.

Counseling Communication Skills Progress Test (CSPT).

For the assessment of the participants' level of mastery of the communication skills the CSPT (Kuntze et al., 2007) was used. Based on the findings of Smit and Van der Molen (1996a, 1996b, 1996c), who investigated different methods for the assessment of communication skills, the CSPT was developed as a video test. It consists of forty-two small video clips. In every video clip an actor plays the role of a client telling something concerning his or her situation. After each video clip students write down literally what they would say to the client, having received the instruction to use a communication skill (e.g. 'Give a summary in an appropriate manner').

The first 30 items intend to determine the level of mastery of the seven basic communication skills. The next 12 items assess the level of mastery of the five advanced communication skills. The rationale for the higher number of items for the assess-

ment of the basic skills than for the assessment of the advanced skills is that there are more basic skills than advanced skills and that the assessment of an advanced skill takes more time than the assessment of a basic skill.

Three trained raters assessed the students' answers. They used an instruction guide developed for the assessment of the application by the students of every communication skill, derived from the skill definitions in Lang and Van der Molen (2004). Expert counselors specified for every item what the requirements were for an adequate answer, a moderately adequate answer and an inadequate answer. For an adequate answer the students received two points, for a moderately adequate answer one point and for an inadequate answer zero points. Finally, scores were calculated for two dimensions underlying the CSPT, the Basic Skill Factor (BSF) and the Advanced Skill Factor (ASF). The range of these two mean scores is 0-2.

Kuntze et al. (2007) developed two comparable versions of the CSPT in order to control for testing effects, and found no significant differences in the students' scores between these two versions. Furthermore, Cronbach's α for both versions was high (.91 and .92) and interrater-reliabilities ranged between .89 and .97.

Procedure

The students filled out the SIB and the FFPI in their first year of their bachelor psychology curriculum. They took the CSPT three times during the first two consecutive years of the curriculum. The CSPT was administered to the students for the first time when they just had started their study psychology as freshmen, roughly three weeks after the start of the academic year, to assess the basic level of their mastery of the skills (T0). Students took the CSPT the second time six months later in their first year, just after they had followed a course in basic communication skills (T1). This course consists of five sessions spread out over five weeks. The third time the CSPT was allocated to students after six months in their second year, when they just had finished a course in advanced communication skills (T2). This course consists of four sessions spread over four weeks. The first year and second year students took the CSPT as a formal examination after, respectively, the course in basic communication skills and the course in advanced communication skills. Minimal scores to pass the examination were determined for both groups.

Both versions of the CSPT were randomly disseminated over the freshmen. The first year students took the version of the CSPT they had not received when they

were a freshman and the second year students received the version of the CSPT they did not take when they were a first year student.

Results

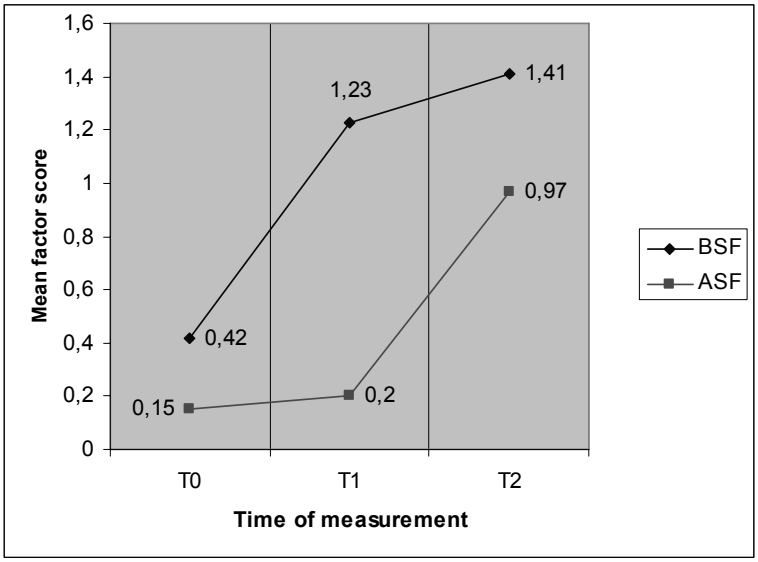
The relationships between the big-five personality factors and assertiveness on the one hand and the mastery of communication skills on the other hand were analyzed. First, the students' mastery level of the communication skills on T0, T1 and T2 was examined. The scores of 143 students on the CSPT were investigated using a repeated measures analysis. Every student received three scores on the Basic Skill Factor: one score at T0, one at T1 and one at T2. Accordingly, every student received three scores on the Advanced Skill Factor. The mean scores at T0 were .42 on the BSF and .15 on the ASF, at T1 1.23 on the BSF and .20 on the ASF and at T2 1.41 on the BSF and .97 on the ASF. Figure 1 visualizes these results.

The within-subjects differences on both the Basic Skill Factor and the Advanced Skill Factor were significant across time, respectively, $F\,(1) = 1050.3$; $p < .001$, and, $F\,(1) = 767.2$; $p < .001$. Correlations between the scores on T0, T1 and T2 ranged between .05 and .19 (all n.s.) for both factors. These correlations suggest that the progress in mastering the basic and advanced communication skills does not depend on the scores of the students at T0.

As can be seen from Figure 1, students improved most on the Basic Skill Factor between T0 and T1. Students followed the basic communication skills training between these two measurements. The effect size (d) was calculated by taking the mean difference on the Basic Skill Factor between T1 and T0 and dividing it by the pooled standard deviation on this factor (Cohen, 1988, 1992). This resulted in an effect size of 3.1. This is a large effect according to Cohen (1988, 1992). Students showed less progress on this factor between T1 and T2, but it is still significant. The effect size (d) is .6, which according to Cohen (1988, 1992) is a moderate effect. Between T1 and T2 students received the training in advanced communication skills.

Figure 1 also illustrates the increase of students' scores on the Advanced Skill Factor. Between T0 and T1 students showed a small but significant progress on this factor, $d = .3$. Students improve most on this factor between T1 and T2, $d = 2.4$, which is a large effect.

Figure 1. Mean factor scores on the Basic Skill Factor (BSF) and the Advanced Skill Factor (ASF) per time of measurement (T0, T1 and T2); N = 143.



These results replicate the findings of Kuntze et al. (2007). Students show most progress on the Basic Skill factor after a training in basic communication skills and on the Advanced Skill Factor after a training in advanced communication skills.

Second, the relationships between the big-five personality factors, assertiveness and the mastery of communication skills were analyzed. The correlations of extraversion, agreeableness, conscientiousness, emotional stability, autonomy and assertiveness with the level of both the basic and the advanced communication skills on T0, T1 and T2 ranged from -.12 (conscientiousness-ASF at T1; $p = .15$) to .17 (autonomy-ASF at T0; $p = .6$), all of which are not significant.

Finally, regression analyses were performed to investigate if the progress on both dimensions of the CSPT can be predicted from scores on the big-five personality factors and assertiveness. Contrast scores were calculated for both factors of the CSPT by subtracting the scores on T0 from T1 and the scores on T1 from T2. Next, these contrast scores were put in a regression analysis as criterion scores and the scores on the FFPI and the SIB as predictors. The results are displayed in Table 2.

Table 2

Regression coefficients using big-five personality factors, anxiety in social situations and frequency of assertive behavior as predictors for progress on the Basic Skill Factor and the Advanced Skill Factor (N = 143)

	BSF T1-T0			BSF T2-T1			ASF T1-T0			ASF T2-T1		
	B	*ß*	*p*	*B*	*ß*	*p*	*B*	*ß*	*p*	*B*	*ß*	*p*
Extraversion	-.01	-.04	.68	-.02	-.08	.4	-.01	-.04	.65	-.01	-.02	.81
Agreeableness	-.01	.02	.82	-.03	-.01	.28	-.01	-.03	.74	.03	.08	.37
Conscientiousness	-.01	-.02	.85	.01	.03	.73	-.01	-.12	.19	-.00	-.02	.83
Emotional Stability	.02	.06	.53	.01	.00	.75	-.00	-.02	.86	-.05	-.14	.14
Autonomy	-.01	.03	.78	-.00	-.01	.93	-.02	-.09	.35	.02	.06	.54
Anx. in soc. sit.	.00	.06	.58	.00	-.03	.81	.00	.05	.65	-.00	-.04	.74
Freq. of soc. beh.	-.00	-.00	.99	.00	.05	.58	.00	.04	.64	.00	.08	.40

BSF T1-T0	Contrast score on the Basic Skill Factor between T0 and T1
BSF T2-T1	Contrast score on the Basic Skill Factor between T1 and T2
ASF T1-T0	Contrast score on the Advanced Skill Factor between T0 and T1
ASF T2-T1	Contrast score on the Advanced Skill Factor between T1 and T2
Anx. in soc. sit.	Anxiety in social situations
Freq. of soc. beh.	Frequency of engaging in social behavior

Table 2 shows that the big-five personality factors do not significantly predict progress on the Basic Skill Factor nor progress on the Advanced Skill Factor. Standardized regression weights for these predictors range from -.14 to .08 (all n.s.). Both indicators of assertive behavior, anxiety in social situations and frequency of engaging in social behavior, also fail to significantly predict progress on the BSF and ASF. Standardized regression weights for these predictors range from -.04 to .08 (all n.s.).

Discussion

In this study the relationship between the higher level big-five personality factors extraversion, agreeableness, conscientiousness, emotional stability and autonomy and the lower level trait assertiveness on the one hand and the mastery level of counseling communication skills on the other hand was investigated. It was expected that the

lower level trait assertiveness would be a better predictor of the level of mastery in these skills than the broad big-five dimensions.

First, the change in mastery level of counseling communication skills after following a microcounseling training program in these skills was analyzed. It was found that students improve their use of basic counseling communication skills most after receiving a course in these basic skills. Students show most progress in using advanced counseling communication skills after following a training program in these advanced skills. These findings replicate the results found in the study of Kuntze et al. (2007) and are consistent with effects reported by several meta-analyses (Baker & Daniels, 1989; Baker et al., 1990; Daniels, 2003; Van der Molen et al., 1995).

The main purpose of this study, however, was to investigate the relationship between the big-five personality factors and assertiveness and the above-described progress in mastering counseling communication skills. Contrary to our expectation that assertiveness would predict the mastery level of counseling communication skills better than the big-five factors, in this study none of the predictors were found to be significant.

The finding that the big-five personality factors were not significantly related to the mastery level of the counseling communication skills is consistent with the results of the study of Smit (1995). She also found that these big-five factors were non-significant predictors of the mastery level of these skills. One explanation is that acquiring counseling communication skills is truly not influenced by personality. For instance, being an extravert or introvert seems not to be relevant for adequately applying counseling communication skills.

Another explanation is that the big-five personality factors are too broad measures for predicting the more specific criterion of mastery level of counseling communication skills. The big-five personality factors are composed of numerous narrow variables, e.g. the big-five factor conscientiousness is among others composed of the narrow variables dependability and need for achievement (Dudley et al., 2006). Specific variance of those variables that do not predict the criterion could interfere with specific variance of other variables that do predict the criterion. This interference can eventually lead to inferior prediction of the criterion by broad composed measures like the big-five personality factors (Paunonen & Ashton, 2001).

For this reason it was investigated whether assertiveness, a narrow trait measure associated with the mastery level of counseling communication skills (Kukulu et

al., 2006), predicted the level of performance of these skills better than the big-five factors. However, in this study assertiveness did not prove to predict the mastery level of counseling communication skills. An explanation for this finding is that being assertive does not necessarily lead to adequately applying counseling communication skills. Persons scoring high on assertiveness are associated with performing adequately in social behavior (Arrindell et al. 1999). However, we believe that general adequate performance in social behavior is different from adequate performance in a professional counseling interview. In the latter context adequately applying counseling communication skills, such as asking open-ended questions or adequately paraphrasing what a client just has said, is far more important than in ordinary daily social situations. In a counseling interview the psychologist has a formal professional relationship with the client, whereas the relationships in daily social situations are more informal.

Overall, we consider the outcome of this study as favorable, because from an educational point of view it may be considered as positive that personality factors are not related to successfully completing a counseling communication skills training program. Trainees scoring high on the big-five personality factors or on assertiveness do not profit more of the training programs than trainees scoring low on these variables. So, it seems that psychology students with different personality profiles and different degrees of assertiveness might be able to become skilled counselors.

Limitations of the Study

A limitation of this study is that the number of subjects is restricted. Another limitation is that we only investigated the narrow trait measure of assertiveness as a predictor. Other narrow trait measures may be better predictors for the level of mastery in counseling communication skills.

Future Research

Future research should replicate this study with more subjects. Moreover, it is recommended to investigate whether other narrow trait measures could be better predictors for the mastery level of counseling communication skills. For instance, the basic level of empathy of the students could be positively related to the level of mastery of counseling communication skills, whereas the level of rigidity could be negatively related to this level.

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Chapter 6

Summary and General Conclusions

Aims of the project

In the Introduction three objectives for the project '*The Counseling Communication Skills Progress Test (CSPT), the development and evaluation of a new instrument for the assessment of the mastery in counseling communication skills*' were formulated. The first objective of this project was to develop a reliable and valid test for the assessment of the progress in acquiring counseling communication skills. The second objective of this project was to investigate the effectiveness of a basic and an advanced training program in these skills. The third objective of this project was to investigate whether there is a relationship between the acquisition of counseling communication skills and, respectively, general intelligence and personality factors.

Most instruments used for testing counseling communication skills assess the level of knowledge about these skills, which forms the first layer of Miller's framework for clinical competence (1990). However, the main aim of the CSPT is to assess the application level of these skills, which forms the second layer of Miller's model. Therefore, based on the findings of Smit and Van der Molen (1996a,b,c), who evaluated three different methods for assessing counseling communication skills, the CSPT was developed as a video test.

With a video test, trainees observe small video clips of one or two minutes. In each clip a client, played by a trained actor, tells something concerning his or her problem. After observation of the video clip trainees have to write down literally what they would say to the client using one of the counseling communication skills, for example 'asking questions'.

Furthermore, the CSPT assesses the trainees' progress of the mastery of counseling communication skills. In psychology curricula the mastery of counseling communication skills is considered to be important, because many psychologists have to be able to perform a professional interview with a client or patient. Therefore, psychology students receive training in these skills. Research into the effectiveness of counseling communication skills training programs point out that the microcounseling method (Ivey, 1971; Ivey & Authier, 1978) is effective in training these skills (Baker & Daniels, 1989; Baker, Daniels & Greeley, 1990; Daniels, 2003; Van der Molen, Smit, Hommes & Lang, 1995). In this method the complex skill of performing a professsional interview with a client is divided into small meaningful skills, for example paraphrasing or summarizing. These so-called micro-skills can be divided into basic counseling communication skills and advanced counseling communication skills.

According to Lang and van der Molen (2004) the function of the basic counseling communication skills is to clarify the client's problem. The purpose of advanced counseling communication skills is to help the client gain new insights in his or her situation (Lang & Van der Molen, 2004). These skills fit within the three-stage helping model of Egan (1975, 1994). Basic counseling communication skills often are trained in the first year of a psychology curriculum, advanced counseling communication skills in consecutive years of a curriculum. The students participating in the studies described in this dissertation received a course in basic counseling communication skills in the first year of their psychology study. They followed a course in advanced counseling communication skills in their second year of study. Both courses were developed according to the cumulative microcounseling method (CMT) (Lang & Van der Molen, 1992). The participants took the CSPT three times: first, as freshmen, second, as first year students after the course in basic skills, third, as a second year student after the course in advanced skills. The CSPT is the first instrument that comprehensively assesses both basic skills and advanced skills. In this way the students can monitor their progress in the mastery of both types of skills.

The second objective of this project was to investigate the effectiveness of both aforementioned courses in communication skills. Like the courses in communication skills examined by Hommes (2006) and Schönrock-Adema (2002) the courses described in this dissertation have a modern setup, because of the use of Information and Communication Technology (ICT). During every training session, students first receive theoretical information on the microcounseling skills with the help of a computer program containing video examples with instructions. Students then practice these skills in role-play exercises under supervision of a trainer. With the CSPT the effectiveness of both innovative training programs was examined.

The third objective of this project was to investigate whether there is a relationship between the acquisition of counseling communication skills on the one hand and general intelligence and personality factors on the other hand. Insight in the relationships between the mastery of counseling communication skills and individual differences in intelligence or personality may help improve training programs in these skills.

Related to these objectives, the studies described in this dissertation investigated the psychometric qualities of the CSPT (Chapter 2), the progress in the mastery of the counseling communication skills of the students (Chapter 2 and 3) and

the influence of intelligence and personality on the mastery of these skills (Chapter 4 and 5).

Summary of the main results

The development and evaluation of the CSPT is described in Chapter 2. The first aim of this study was to investigate the test's reliability, dimensionality and discriminant power. The second aim was to examine whether trainees show progress in their mastery of the counseling communication skills after following a course in basic skills and a course in advanced skills.

With respect to the first aim scores of three groups of psychology students on the CSPT were examined. One group took the CSPT as freshmen (T0), another group after a course in basic counseling communication skills (T1) and the third group after a course in advanced counseling communication skills (T2). We found two factors underlying the CSPT, a Basic Skill Factor and an Advanced Skill Factor. The inter-rater-reliability and internal consistency of these factors were high. Comparison of the average group scores on these two factors showed that students who followed the basic course (T1) scored higher on the Basic Skill Factor than the students who did not receive any training in counseling communication skills (T0). Students who received the advanced course (T2) scored higher on the Advanced Skill Factor than the students who did not follow this course (T1). These findings support the discriminant power of the CSPT.

With respect to the second aim of this study, scores on the CSPT of another group of psychology students were analyzed. This group took the CSPT at all three measurements: T0, T1 and T2. As expected, students showed most progress on the Basic Skill Factor having followed the basic course and improved most on the Advanced Skill Factor having received the course in advanced skills. Finally, students of another Dutch psychology curriculum served as a control group. This group took the CSPT at T0 and T1 without receiving a course in counseling communication skills. Students who had received the training in basic skills improved more on the Basic Skill Factor than the control group. The main conclusion of this study is that the CSPT assesses the progress of the mastery in communication skills in a reliable and valid manner.

Research into the effectiveness of the microcounseling method often reports overall effect sizes only. In this regard the study described in Chapter 2 is no excep-

tion. Hence, the effect sizes presented in Chapter 2 concerned overall scores on the Basic Skill Factor and the Advanced Skill Factor. However, for educational purposes it was regarded more interesting to know more about the progress of students on each *specific* microskill. Therefore, the aim of the study described in Chapter 3 was to investigate the adequate use of the separate counseling communication skills (seven basic skills: *minimal encouragements, asking questions, paraphrasing, reflection of feeling, concreteness, summarizing* and *situation clarification* and five advanced skills: *advanced accurate empathy, confrontation, positive relabeling, examples of one's own* and *directness*) after, respectively, basic and advanced training in these skills.

Using the same method as described in Chapter 2, the between-subject, the within-subject and the pre-test-post-test-control group analyses revealed very large effect sizes for all seven basic skills. The between-subject and the within-subject analyses showed large effect sizes for four advanced skills. Only for the advanced skill *examples of one's own* a moderate effect size was found.

The results of the study presented in Chapter 3 imply that the microcounseling method is very effective on the level of separate microskills. However, students perform better on the basic skills than on the advanced skills. More training seems to be needed in the latter to achieve the same level of mastery.

In Chapter 4 and 5 the influence of, respectively, intelligence and personality on the mastery of counseling communication skills were investigated. The study presented in Chapter 4 investigated whether verbal, spatial and numerical intelligence predict the mastery of counseling communication skills. Next to the CSPT, students took tests to determine their level of verbal, spatial and numerical intelligence.

None of the three intelligence factors were significant predictors for the mastery of counseling communication skills. The level of intelligence, whether verbal, spatial or numerical, does not matter for the mastery of counseling communication skills. So, it seems that psychology students can acquire these skills irrespective of their intelligence. A limitation of the study, however, is that the group of participants used in this study was rather homogeneous, which may have precluded finding significant relationships between intelligence factors and the mastery level of counseling communication skills.

The aim of the study described in Chapter 5 was to analyze whether the broad big five factors extraversion, agreeableness, conscientiousness, emotional stability

and autonomy and a narrow trait measure of assertiveness could predict the scores on the CSPT. Apart from taking the CSPT three times the students also filled out the Five Factor Personality Inventory (Hendriks, Hofstee & De Raad, 1999), a questionnaire for the assessment of the big five factors, and the Scale for Interpersonal Behavior (Arrindell, De Groot & Walburg, 1984), a measure for assertiveness.

Regression analyses showed no significant relationships between any of the personality predictors and the mastery of counseling communication skills. So, the personality factors used in this study are not related to successfully completing a counseling communication skills training program. This seems to imply that students with different personality profiles might be able to acquire the basic and advanced skills.

Discussion and conclusion

The studies described in this dissertation show that progress in the mastery of counseling communication skills can be assessed on the application level (Miller, 1990) in a reliable and valid manner, the first objective of this project. This implies that trainees can demonstrate whether they can adequately apply basic and advanced counseling communication skills. Moreover, they are able to monitor their progress in the mastery of these skills.

Furthermore, the CSPT can be a valuable instrument for research purposes. By the adequate assessment of the mastery of counseling communication skills the CSPT can give insight into the effectiveness of training programs or relationships between the acquisition and mastery of these skills and other variables of interest.

The second objective was to examine the effectiveness of both the innovative course in basic and the innovative course in advanced skills. The results of the studies prove that both innovative courses, developed in accordance with the CMT-method (Lang & Van der Molen, 1992), are very effective in training counseling communication skills. This is consistent with findings of previous research (Baker & Daniels, 1989; Baker et al., 1990; Daniels, 2003; Van der Molen et al., 1995). More specifically, the results presented in this dissertation show that CMT is very effective in training both the seven basic and the five advanced counseling communication skills and is very effective in training each of these skills separately.

Finally, with regard to the third objective, it was shown that intelligence and personality factors do not influence the acquisition and mastery level of counseling

communication skills. From an educational point of view these findings can be regarded as positive, because it seems that every psychology student may be able to acquire these skills.

Yet, the ultimate goal of CMT is the integration of these separate skills into adequately performing a professional interview with a client or patient. It was beyond the scope of the CSPT to examine whether this final goal is realized, but the question remains whether students are able to integrate the application of the different skills in a proper manner after the two training programs

Suggestions for future research

Although the results described in this dissertation show that the CSPT is an adequate instrument for the assessment of the mastery level of counseling communication skills and that the CMT is effective in training these skills, some issues remain to be solved in future research.

First of all, the CSPT assesses the application level of the counseling communication skills by asking the trainees to write down literally what they would say to the client. In this manner the trainees can show their verbal ability in the application of these skills. However, the trainees cannot demonstrate the non-verbal aspects of their behavior on the CSPT that professional psychologists use in their interviews with a client, for example showing empathy or the use of encouraging facial expressions. It would support the validity of the CSPT if it also could assess these non-verbal aspects of a professional counselor's behavior. The use of web-cam-tests, increasingly applied in the context of personnel selection (e.g. Funke, & Schuler, 1998; Olson-Buchanan & Drasgow, 2006; Oostrom, Born, Serlie, & Van der Molen, 2008), might be an option for the assessment of counseling communication skills in the future.

Another challenge concerns the efficiency of the CSPT. Although the CSPT is efficient with regard to the assessment of the trainees, as all students can take the test at the same time, judging the answers on the CSPT of a large group of students is rather time consuming. However, some computer programs exist for automatically reviewing students' answers on essay questions (e.g. Duwairi, 2006; Foltz, Laham, & Landauer, 1999; Lemaire, & Dessus, 2001). If this type of programs could be applied to judging the students' answers on the CSPT, it certainly would increase its efficiency.

With respect to the effectiveness of the CMT in training the counseling communication skills future research should investigate whether CMT also realizes its ultimate goal: integration of these skills into adequately performing a professional interview. Examining whether scores on the CSPT can predict actual performance in a professional interview would give insight in this matter.

Finally, it is recommended to replicate the study described in Chapter 4, the influence of verbal intelligence on the mastery of counseling communication skills, with a more heterogeneous sample. With respect to the influence of personality it is recommended to investigate if other personality variables, e.g. rigidity or motivation, are related to the mastery of counseling communication skills.

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Samenvatting en Conclusies

Doelen

In deze dissertatie worden de resultaten besproken van het project '*De Vaardigheids-VoortgangsToets (VVGT), ontwikkeling en evaluatie van een nieuw instrument voor de beoordeling van de beheersing van gespreksvaardigheden'*. Het eerste doel van dit project was een betrouwbare en valide toets te ontwikkelen voor het beoordelen van de voortgang van studenten bij de verwerving van gespreksvaardigheden. Het tweede doel was de effectiviteit van een cursus in basis- en een cursus in gevorderde gespreksvaardigheden te onderzoeken. Het derde doel was na te gaan of er samenhang bestaat tussen enerzijds de beheersing van gespreksvaardigheden en, anderzijds algemene intelligentie en persoonlijkheidsfactoren.

Met gespreksvaardigheidstoetsen wordt meestal de *kennis* van betreffende vaardigheden getoetst, het eerste niveau van Miller's model van klinische competentie (1990). Het doel van de VVGT is echter de *toepassing* van deze vaardigheden te toetsen, het tweede niveau van het model van Miller. Daarom is, op basis van onderzoek van Smit en Van der Molen (1996a,b,c), die drie verschillende methoden voor de beoordeling van gespreksvaardigheden hebben geëvalueerd, de VVGT ontwikkeld in de vorm van een videotoets.

Een videotoets bestaat uit korte videofragmenten van één of twee minuten. Ieder fragment toont een cliënt, gespeeld door een getrainde acteur, die wat vertelt over zijn of haar probleem. Na het zien van het fragment krijgen de studenten de opdracht een specifieke gespreksvaardigheid toe te passen, bijvoorbeeld 'open vragen stellen'. Daarbij schrijven ze letterlijk op wat ze tegen de cliënt zouden zeggen.

Met de VVGT werd beoogd de voortgang in de beheersing van de gespreksvaardigheden van de cursisten te meten. In psychologieopleidingen wordt de beheersing van gespreksvaardigheden belangrijk gevonden, omdat veel afgestudeerde psychologen in staat moeten zijn een professioneel gesprek met een cliënt te voeren. Om dat doel te bereiken volgen psychologiestudenten gespreksvaardigheidstrainingen. Onderzoek naar de effectiviteit van gespreksvaardigheidstrainingen laat zien dat de microcounselingmethode (Ivey, 1971; Ivey & Authier, 1978) effectief is in het trainen van deze vaardigheden (Baker & Daniels, 1989; Baker, Daniels & Greeley, 1990; Daniels, 2003; Van der Molen, Smit, Hommes & Lang, 1995). Bij deze methode is de complexe vaardigheid van het voeren van een professioneel gesprek met een cliënt onderverdeeld in kleinere betekenisvolle vaardigheden, zogenaamde microskills. Voorbeelden daarvan zijn vragen stellen, parafraseren en samenvatten. De

microskills kunnen verder worden verdeeld in basisgespreksvaardigheden en gevorderde gespreksvaardigheden. Volgens Lang en Van der Molen (2004) is de functie van de basisgespreksvaardigheden het verhelderen van het probleem van de cliënt. Het doel van de gevorderde vaardigheden is dat de cliënt nieuw inzicht in zijn of haar situatie krijgt (Lang & Van der Molen, 2004). Deze beide groepen vaardigheden passen in de eerste twee fasen van het driefasen-model van Egan (1975, 1994). Die fasen zijn: (1) probleemverheldering, (2) probleemnuancering en (3) probleembehandeling. Training in de basisgespreksvaardigheden wordt vaak in het eerste jaar van een psychologiecurriculum gegeven en training in de gevorderde gespreksvaardigheden in één van de daaropvolgende jaren binnen dat curriculum. De studenten die hebben meegewerkt aan de in deze dissertatie beschreven onderzoeken volgden een training in basisgespreksvaardigheden in het eerste jaar van hun studie psychologie. In het tweede jaar van hun studie namen ze deel aan een training in gevorderde gespreksvaardigheden. Beide trainingen zijn ontwikkeld volgens de principes van de cumulatieve microcounselingmethode (CMT) (Lang & Van der Molen, 1992). De studenten dienden driemaal aan de VVGT deel te nemen: ten eerste als eerstejaarsstudent zonder een training in gespreksvoering te hebben gevolgd bij aanvang van de studie, ten tweede als eerstejaarsstudent na het volgen van de training in basisgespreksvaardigheden en de derde keer als tweedejaarsstudent na het volgen van de training in gevorderde gespreksvaardigheden. De VVGT is voor zover wij hebben kunnen nagaan het eerste instrument dat zowel de mate van beheersing van basisgespreksvaardigheden als van gevorderde gespreksvaardigheden meet. Daardoor kunnen de studenten hun eigen voortgang in de beheersing van beide typen vaardigheden bijhouden.

Het tweede doel van dit project was de effectiviteit van de beide hiervoor genoemde trainingen te onderzoeken. Evenals de gesprekstrainingen, die zijn onderzocht door Hommes (2006) en Schönrock-Adema (2002), kennen de in deze dissertatie beschreven trainingen een moderne opzet door het gebruik van Informatie en Communicatie Technologie (ICT). Tijdens iedere trainingssessie doorlopen de studenten namelijk eerst een computerprogramma, waarin ze met behulp van videofragmenten individueel oefenen met de gespreksvaardigheden. Daarna oefenen de studenten deze vaardigheden in rollenspelen met elkaar onder begeleiding van een trainer. De effectiviteit van de trainingen werd onderzocht met behulp van de VVGT.

Het derde doel van dit project was na te gaan of er samenhang bestaat tussen enerzijds de mate van beheersing van gespreksvaardigheden en anderzijds algemene

intelligentie- en persoonlijkheidsfactoren. Kennis over de relatie tussen de beheersing van gespreksvaardigheden en individuele verschillen in intelligentie en persoonlijkheid zou gebruikt kunnen worden voor het verbeteren van gesprekstrainingen.

Om de projectdoelen te realiseren werden de psychometrische eigenschappen van de VVGT (hoofdstuk 2), de voortgang van de studenten in de beheersing van de gespreksvaardigheden (hoofdstuk 2 en 3) en de invloed van intelligentie en persoonlijkheid op de beheersing van deze vaardigheden (hoofdstuk 4 en 5) onderzocht.

Samenvatting van de belangrijkste resultaten

De ontwikkeling en evaluatie van de VVGT is beschreven in hoofdstuk 2. In deze studie werden de betrouwbaarheid, de onderliggende dimensies en het discriminerend vermogen van de VVGT onderzocht. Daarnaast werd nagegaan of studenten, respectievelijk na het volgen van een training in basisgespreksvaardigheden en een training in gevorderde gespreksvaardigheden, voortgang vertoonden in hun beheersing van deze vaardigheden.

Eerst werden de VVGT-scores van drie verschillende groepen psychologiestudenten onderzocht. Eén groep maakte de VVGT als eerstejaarsstudent zonder een training in gespreksvoering te hebben gevolgd (T0), de tweede groep kreeg de VVGT als eerstejaarsstudent na het volgen van de training in basisgespreksvaardigheden (T1) en de derde groep als tweedejaarsstudent na het volgen van de training in gevorderde gespreksvaardigheden (T2). Er werden twee onderliggende dimensies voor de VVGT gevonden, een basisvaardigheidsfactor en een gevorderde-vaardigheidsfactor. De interbeoordelaarsbetrouwbaarheid en de interne consistentie van deze factoren was hoog. Uit de vergelijking van de groepsgemiddelden op deze twee factoren bleek dat studenten na het volgen van de training in basisgespreksvaardigheden (T1) hoger scoorden op de basisvaardigheidsfactor dan de studenten die geen training in gespreksvoering hadden gevolgd (T0). Studenten die de training in gevorderde gespreksvaardigheden hadden gevolgd (T2) scoorden hoger op de gevorderde-vaardigheidsfactor dan de studenten die deze training niet hadden gevolgd (T1). Deze bevindingen ondersteunen het discriminerend vermogen van de VVGT.

Hierna werden de VVGT-scores van een andere groep psychologiestudenten geanalyseerd. Deze groep maakte de VVGT op alle drie meetmomenten: T0, T1 en T2. Zoals verwacht vertoonden studenten de meeste vooruitgang op de basisvaardigheidsfactor na het volgen van de training in basisgespreksvaardigheden en op de

gevorderde-vaardigheidsfactor na afloop van de training in gevorderde gespreksvaardigheden. Tot slot zijn de scores van een controlegroep geanalyseerd. Deze groep bestond uit studenten van een andere Nederlandse psychologieopleiding, zij maakten de VVGT op T0 en T1 zonder een training gespreksvoering te hebben gevolgd. De studenten die de training in basisgespreksvaardigheden hadden gevolgd toonden meer vooruitgang op de basisvaardigheidsfactor dan de controlegroep. De voornaamste conclusie van dit onderzoek is dat met de VVGT de beheersing van gespreksvaardigheden op een betrouwbare en valide manier kan worden beoordeeld.

In onderzoek naar de effectiviteit van de microcounselingmethode worden vaak alleen overall effect sizes gerapporteerd. Wat dit betreft vormt de in hoofdstuk 2 beschreven studie geen uitzondering, want de in dat hoofdstuk gerapporteerde effect sizes betroffen totaalscores op de basisvaardigheidsfactor en de gevorderde-vaardigheidsfactor. Vanuit educatief oogpunt is het echter ook interessant om de vooruitgang van studenten te onderzoeken op iedere *specifieke* microskill. Daarom was het doel van de in hoofdstuk 3 beschreven studie het adequaat gebruik van de verschillende micro-skills te onderzoeken na, respectievelijk een training in basisgespreksvaardigheden en een training in gevorderde gespreksvaardigheden. In de eerstgenoemde training leerden studenten zeven basisvaardigheden: *kleine aanmoedigingen, vragen stellen, parafraseren, gevoel reflecteren, concretiseren, samenvatten* en *situatie verduidelijken*. In de gevorderde training leerden ze vijf nuancerende vaardigheden: *nuancerende empathie, confrontatie, positief heretiketteren, eigen voorbeelden geven* en *directheid*.

In dit onderzoek werd dezelfde methode gebruikt als in hoofdstuk 2. Met behulp van een between-subject-, een within-subject- en een pre-test-post-test-control-group-analyse werden sterke effecten gevonden voor de zeven basisgespreksvaardigheden. Uit de between-subject en de within-subject analyses kwamen sterke effecten naar voren voor vier van de vijf gevorderde gespreksvaardigheden. Alleen voor de gevorderde vaardigheid *geven van eigen voorbeelden* werd een gemiddeld effect gevonden.

De resultaten van het onderzoek, dat is besproken in hoofdstuk 3, tonen aan dat de microcounselingmethode effectief is bij het aanleren van de verschillende microskills. Studenten blijken echter beter in de beheersing van de basisgespreksvaardigheden dan in de beheersing van de gevorderde vaardigheden. Waarschijnlijk

hebben zij meer training nodig in de laatstgenoemde vaardigheden om tot een zelfde beheersingsniveau te komen als het niveau dat zij bereiken bij de basisvaardigheden.

In hoofdstuk 4 en 5 werd de invloed van, respectievelijk intelligentie- en persoonlijkheidsfactoren op de beheersing van gespreksvaardigheden onderzocht. In de studie beschreven in hoofdstuk 4 werd nagegaan of verbale, spatiële en numerieke intelligentie de beheersing van gespreksvaardigheden voorspeld. Behalve de VVGT maakten de studenten ook een verbale, spatiële en numerieke intelligentietest.

Geen van de drie intelligentiefactoren bleek de mate van beheersing van gespreksvaardigheden te voorspellen. Het intelligentieniveau, verbaal, spatieel of numeriek, heeft geen invoed op de beheersing van deze vaardigheden en psychologie-studenten lijken dus, ongeacht hun intelligentieniveau, deze vaardigheden te kunnen verwerven. De groep studenten die deelnam aan dit onderzoek was echter behoorlijk homogeen, wat een verklaring zou kunnen zijn voor het niet vinden van een effect van intelligentie.

In de studie, gepresenteerd in hoofdstuk 5, werd onderzocht of de brede big-five persoonlijkheidsfactoren extraversie, vriendelijkheid, consciëntieusheid, emotionele stabiliteit (of neuroticisme) en autonomie en de smallere persoonlijkheids-trek assertiviteit de scores op de VVGT konden voorspellen. Naast de VVGT vulden studenten ook de Five Factor Personality Inventory (Hendriks, Hofstee & De Raad, 1999) in, een vragenlijst voor het meten van de big-five persoonlijkheidsfactoren, en de Schaal voor Interpersoonlijk Gedrag (Arrindell, De Groot & Walburg, 1984), een maat voor assertiviteit.

Geen van de persoonlijkheidsfactoren die in deze studie werden gemeten kon de beheersing van gespreksvaardigheden voorspellen. Dit lijkt te impliceren dat psychologiestudenten met verschillende persoonlijkheidsprofielen in staat zouden moeten zijn om de basis- en gevorderde gespreksvaardigheden te verwerven.

Discussie en conclusie

De in deze dissertatie beschreven studies tonen aan dat voortgang in de beheersing van gespreksvaardigheden met de VVGT op een betrouwbare en valide manier beoor-deeld kan worden op toepassingsniveau (Miller, 1990), het eerste doel van dit project. Dit betekent dat cursisten kunnen tonen of ze de basis- en gevorderde gespreksvaar-digheden adequaat kunnen toepassen. Bovendien worden ze daarmee in staat gesteld om hun eigen voortgang in de beheersing van deze vaardigheden bij te houden.

Daarnaast kan de VVGT een waardevol instrument zijn voor onderzoeksdoeleinden. Door de adequate beoordeling van de beheersing van gespreksvaardigheden kan de VVGT inzicht geven in de effectiviteit van cursusprogramma's of mogelijke relaties tussen de mate van vooruitgang op en de beheersing van deze vaardigheden en andere variabelen.

Het tweede doel was de effectiviteit van beide innovatieve gespreksvoeringstrainingen te onderzoeken. De resultaten tonen aan dat beide trainingen, ontwikkeld volgens de CMT-methode (Lang & Van der Molen, 1992), sterke effecten hebben. Dit is in overeenstemming met resultaten van voorgaand onderzoek (Baker & Daniels, 1989; Baker et al., 1990; Daniels, 2003; Van der Molen et al., 1995). De resultaten laten zien dat CMT effectief is in het trainen van zowel de zeven basisvaardigheden als de vijf gevorderde vaardigheden.

Het derde doel was de relatie tussen intelligentie- en persoonlijkheidsfactoren en de mate van beheersing van gespreksvaardigheden te onderzoeken. Uit de studies kwam naar voren dat deze factoren geen invloed lijken te hebben. Vanuit educatief oogpunt kunnen deze resultaten beschouwd worden als positief, want de bevindingen lijken te suggereren dat iedere psychologiestudent in staat is om deze vaardigheden te verwerven, ongeacht zijn of haar intelligentie- of persoonlijkheidsstructuur.

Bij deze positieve resultaten valt de volgende kanttekening te maken. Het uiteindelijke doel van de CMT is dat studenten in staat zijn de verschillende gespreksvaardigheden geïntegreerd te gebruiken binnen een geheel professioneel gesprek met een cliënt of patiënt. Of dit doel verwezenlijkt wordt is niet te onderzoeken met de VVGT, en de vraag blijft daarom of studenten na het volgen van beide gesprekstrainingen inderdaad in staat zijn een professioneel gesprek op die manier te voeren.

Suggesties voor toekomstig onderzoek

Hoewel de in deze dissertatie beschreven resultaten aantonen dat de VVGT een adequaat instrument is voor het beoordelen van de beheersing van gespreksvaardigheden en dat CMT effectief is in het aanleren van deze vaardigheden, is er een aantal vragen waarop toekomstig onderzoek antwoord moet geven.

Ten eerste, de VVGT toetst de toepassing van gespreksvaardigheden door studenten letterlijk op te laten schrijven wat ze tegen een cliënt zouden zeggen. Op deze manier kunnen zij hun verbale bekwaamheid in het toepassen van de vaardigheden tonen. De studenten kunnen echter niet de non-verbale aspecten van hun

gedrag, die professionele psychologen gebruiken in hun gesprekken met cliënten, op de VVGT tonen. Bijvoorbeeld een empathische toon of het gebruik van gezichtsuitdrukkingen, zoals een vriendelijke, aanmoedigende blik. Het zou de validiteit van de VVGT ten goede komen als dit instrument deze non-verbale aspecten van het gedrag van een counselor ook zou kunnen toetsen. Het gebruik van webcam-tests, steeds meer in opkomst bij personeelsselectie (e.g. Funke, & Schuler, 1998; Olson-Buchanan & Drasgow, 2006; Oostrom, Born, Serlie, & Van der Molen, in voorbereiding), zou in de toekomst een mogelijkheid voor de toetsing van deze non-verbale aspecten van gespreksvaardigheden kunnen zijn.

Een andere uitdaging heeft betrekking op de efficiëntie van de VVGT. Ofschoon de VVGT efficiënt is met betrekking tot de toetsafname doordat alle studenten de toets tegelijkertijd maken, is de beoordeling van de antwoorden op de VVGT van een grote groep studenten tijdrovend. Er bestaan computerprogramma's die antwoorden op essayvragen automatisch nakijken (e.g. Duwairi, 2006; Foltz, Laham, & Landauer, 1999; Lemaire, & Dessus, 2001). Als dit type programma gebruikt zou kunnen worden voor het beoordelen van de antwoorden van de studenten op de items van de VVGT, dan zou dat de efficiëntie van de toets verhogen.

Met betrekking tot de effectiviteit van de CMT in het aanleren van gespreksvaardigheden zou toekomstig onderzoek zich moeten richten op de vraag of de CMT zijn uiteindelijke doel bereikt: geïntegreerd gebruik van deze vaardigheden bij het adequaat voeren van een professioneel gesprek met een cliënt of patiënt. Onderzoek naar het voorspellend vermogen van de VVGT-scores van studenten met betrekking tot hun vermogen een geheel gesprek op adequate wijze te voeren moet hierover uitsluitsel geven.

Tot slot wordt aanbevolen om het in hoofdstuk 4 beschreven onderzoek naar de invloed van verbale intelligentie op de beheersing van gespreksvaardigheden te repliceren met een heterogenere steekproef. Met betrekking tot de invloed van persoonlijkheid (hoofdstuk 5) wordt aanbevolen om te onderzoeken of andere persoonlijkheidsvariabelen, bijvoorbeeld rigiditeit of motivatie, gerelateerd zijn aan de beheersing van gespreksvaardigheden.

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Appendix

Definitions of the Counseling Communication Skills

The definitions of the basic and advanced communication skills as assessed by the CSPT are listed below. The definitions are derived from Lang & Van der Molen (2004).

Basic Communication Skills

Minimal encouraging

Minimal encouragements are brief verbal responses intended to encourage the client and show that he is being listened to. Examples of minimal encouragements are: 'hm, hm'; 'yes'; 'and then'; 'go on'; or the repetition of one or two words in an inquiring tone of voice. These interjections at first seem to be rather insignificant, but are in practice a great help in encouraging the client to go on talking.

Asking questions

The object of asking questions is to help the client put his own thoughts into words and to clarify his problems. A significant distinction can be made in open and closed questions. Open questions leave the client a considerable amount of freedom in the formulation of his answer. The client can talk from his own frame of reference and determine for himself the direction and content of the conversation. With closed questions the answer is determined largely by the content of the question. Generally the person answering can simply give a confirmation or denial.

Paraphrasing of content

Paraphrasing of content means briefly reproducing in one's own words the gist of what the client has said. The main characteristic of the paraphrase is that it refers to the information content of the client's responses; it gives a 'translation' of the essence of what the client has said. The use of this skill has three purposes:

1 The client realizes that he is being listened to, and it can be refreshing and stimulating for him to hear his own story again but worded differently.

2 The helper finds out whether he has understood the client correctly.

3 The helper reproduces what the client has said more precisely, thereby giving the client a clearer picture of his problems.

Reflection of feeling

Reflection of feeling literally means the reproducing or mirroring of feeling. The helper stresses the more emotional aspects of the client's story. He demonstrates that he is trying to understand how the client feels during the conversation or has felt in the situation the client is describing.

Concreteness

Concreteness is a composite skill in the sense that the skills mentioned above, encouraging, open and closed questions, paraphrasing and reflecting, all contribute to it. The purpose of the skill is that the client achieves greater precision with regard to his problem.

Summarizing

A summary gives structure to what the client has said by ordering the main points of his story. The main difference with paraphrasing is that with a summary, statements of the client over a longer period of time are reproduced. A summary serves three functions:

1 The helper can see whether he has understood the client correctly.

2 It encourages the client to explore his thoughts and feelings further.

3 It brings order into the client's account.

Situation Clarification

Situation clarification refers to the ability of the helper to recognize and discuss ambiguities or misunderstandings occurring during the relationship between the helper and the client. It is especially important when there seems to be a breakdown in the mutual expectations between the helper and client. The objective of this skill is to bring about or restore these mutual expectations.

Advanced Skills

Advanced accurate empathy

With advanced accurate empathy the helper gives an interpretation of the client's story that is more distant from the client's frame of reference, but which gives a sharper or more constructive view of the problem. The helper not only shows understanding by accurately reflecting the feelings expressed by the client, for example, but also by bringing out the half-hidden emotional tone in the client's story.

Confrontation

The skill confrontation is a more pronounced form of advanced accurate empathy. The helper uses interpretations that are quite distant from the client's frame of reference. The helper gives a response to the client's views about himself and the world that is significantly different from that of the client.

Positive relabeling

Positive relabeling means: to apply a new, positive reconstruction to the parts of the problem originally found to be negative. The purpose of positive relabeling is to place the client's 'sick' aspects in a favorable light. An attempt is made to give a favorable meaning to the complaints and symptoms themselves. The function of this skill is that the negative self-image of the client is altered.

Examples of one's own

Whit this skill the helper shares some of his own experiences with the client and, thus, shows what is on his mind or has been in the past. It is often referred to as self-disclosure. Examples of one's own has three functions:

1 The helper shows that what the client is going through is something shared.

2 The helper talking about himself increases the chance that the client will also reveal his personal views.

3 It helps the client to put into words those things that he cannot or dare not express himself.

Directness

Directness implies that there is a frank discussion about what is happening in the here-and-now situation of the contact between helper and client. The first aim of this skill is to promote further joint cooperation; it concerns the personal relationship between client and helper. The second goal of directness is to give the client an idea of the consequence of his behavior.

Dankwoord

Dankwoord

You never write alone.

Velen hebben direct of indirect meegewerkt aan de totstandkoming van dit proefschrift. Daarom dank aan:

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Curriculum Vitae

Jeroen Kuntze was born in Gouda, the Netherlands, on the 19th of april 1974. In the summer of 1992 he finished secondary school at the Rijnlands Lyceum in Oegstgeest. Hereafter, he started studying Dutch Language and Culture at the University of Groningen. In January 1993 he started to study Psychology at the same university and graduated in September 1997 in personality- and organizational psychology.

From December 1997 till November 1999 he worked for the Open University teaching and developing several diagnostic skills courses. From December 1999 till July 2002 he continued in similar activities at the University of Groningen. In August 2002 he was offered a temporary position at the Institute of Psychology, Erasmus University Rotterdam, and became involved in the development of a new psychology curriculum. He was and is engaged in developing and conducting several diagnostic skills training programs and tutors in a variety of bachelor psychology courses. From November 2003 onwards these educational activities were combined with Ph.D. research on the assessment of progress in the mastery of counseling communication skills.

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