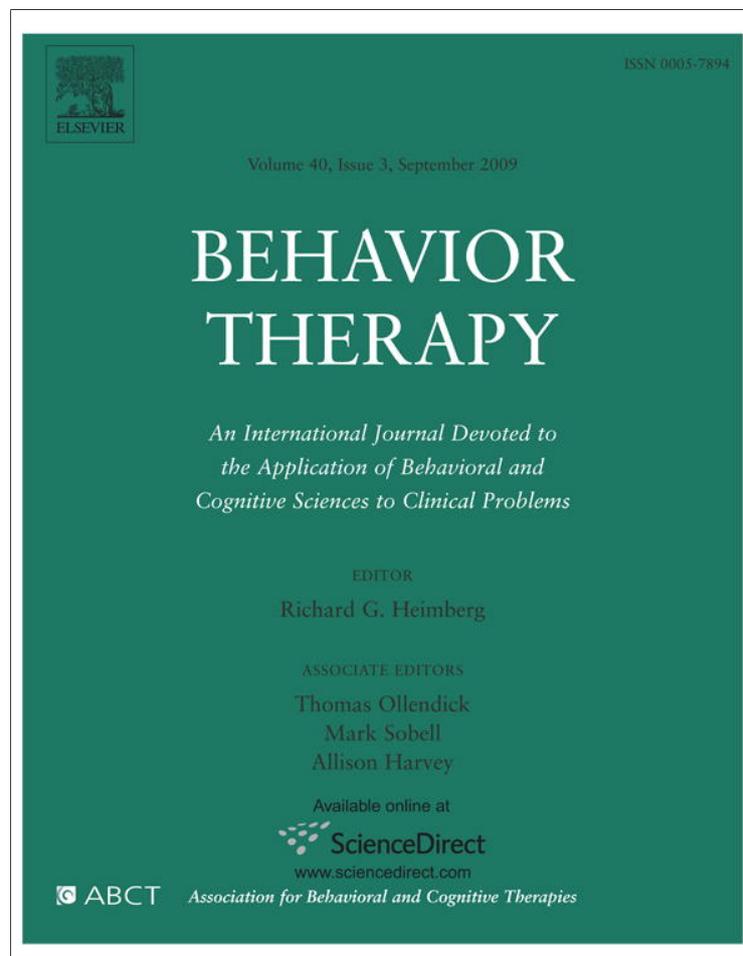


Provided for non-commercial research and education use.
Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

<http://www.elsevier.com/copyright>



Acceptance of Structured Diagnostic Interviews for Mental Disorders in Clinical Practice and Research Settings

Andrea Suppiger, Tina In-Albon, Stephanie Hendriksen, University of Basel
 Ernst Hermann, Psychiatric Clinic, Meissenberg, Zug
 Jürgen Margraf, Silvia Schneider, University of Basel

The objective of this study was to investigate the acceptance of structured diagnostic interviews in clinical practice, as well as research, settings. Using the Diagnostisches Interview bei Psychischen Störungen (the modified and extended German version of the Anxiety Disorders Interview Schedule for DSM-IV), 10 certified interviewers conducted 183 structured interviews in different inpatient, outpatient, and research settings in Switzerland and Germany. After each interview, patients and interviewers filled out a questionnaire asking for their evaluation of the interview. Patients' and interviewers' reactions to the interview were highly positive. On a scale measuring overall satisfaction with the interview (0 = *not at all satisfied*, 100 = *totally satisfied*) the mean patient rating was 86.55 ($SD=13.18$), and the mean interviewer rating was 85.82 ($SD=12.84$). The procedure used by the interviewer was rated by 142 (78.5%) patients as being helpful, and 176 (96.7%) rated the relationship as being positive. Less than 16% of the interviews were described as exhausting by the patients and interviewers. A majority of the interviewers (92.6%) indicated that during the interview they could respond adequately to the patient. The results of this study indicate that structured diagnostic

interviews are highly accepted by interviewers and patients in a variety of settings. These findings, together with the existing evidence of the reliability and validity of structured interviews, should encourage their use in the diagnostic process, in outpatient and inpatient clinical settings as well as in research studies.

THE USE OF STRUCTURED interviews as a basis for diagnosing mental disorders has several advantages. Structured interviews can help clinicians and scientists collect all relevant information within an acceptable time span. Furthermore, structured interviews facilitate the application of complicated algorithms to assess the symptoms required for diagnoses.

Despite the substantial advantages of structured interviews, many clinicians rely exclusively on unstandardized clinical interviews when evaluating patients in routine clinical practice. Pinninti, Madison, Musser, and Rissmiller (2003) argued that a frequent criticism of structured interviews relates to interview length. Clinicians also commonly contend that structured interviews are too long and thus interfere with a good therapeutic relationship. Another study by Marshall and colleagues (2001) showed that, compared to patients, clinicians generally underestimated the positive benefit and overestimated the intrusive and disruptive nature of structured or standardized data collection. It is possible that diagnosticians overestimate the negative and underestimate the positive impact of utilizing structured interviews as a part of the diagnostic process.

Patients and interviewers' reactions should be an important component of the evaluation of any

The authors would like to acknowledge the assistance of Professor Franz Müller-Spahn, Ph.D. (Department of Psychiatry, University of Basel), Sascha Wendler, Ph.D. (Clinic Nexus, Baden-Baden), and Dr. Klaus Bader (Outpatient Clinic for Behavior Therapy, University of Basel).

This research was funded by the Freiwillige Akademische Gesellschaft (DPE2020).

Andrea Suppiger and Tina In-Albon contributed equally to the research reported in this manuscript.

Address correspondence to Tina In-Albon, Department of Clinical Child and Adolescent Psychology, University of Basel, 4055 Basel, Switzerland.; e-mail: Tina.in-albon@unibas.ch.

0005-7894/08/0272-0279\$1.00/0

© 2008 Association for Behavioral and Cognitive Therapies. Published by Elsevier Ltd. All rights reserved.

diagnostic instrument. To be used in clinical practice, a structured interview must—in addition to being reliable and valid—fulfill the criteria of feasibility and patient and interviewer acceptance (Pinninti et al., 2003). Earlier studies have investigated the acceptance and utility of structured or standardized interviews, but these studies have often been unsystematic (Sbrana et al., 2003), lacking in procedural detail (Wittchen et al., 1991), or specific to particular mental disorders (Jonasson, Jonasson, Ekselius, & Knorrning, 1997; Wittchen, Essau, Rief, & Fichter, 1993). In designing the current study, a literature search conducted in 2005 was unable to identify an instrument that systematically assessed patients' and interviewers' satisfaction with structured interviews. A recently published study by Hoyer, Ruhl, Scholz, and Wittchen (2006) used a feedback scale that focused on the evaluation of the computer-assisted Composite International Diagnostic Interview (DIAX-X/M-CIDI; Wittchen & Pfister, 1997). Their study, conducted in an unselected consecutive sample of 236 patients undergoing a routine diagnostic assessment in an outpatient clinic, revealed that the computer-assisted standardized diagnostic interview was highly accepted by patients.

The main purpose of our study was to investigate patient and interviewer acceptance of structured interviews in clinical practice and research settings, using the Diagnostisches Interview bei Psychischen Störungen (DIPS for DSM-IV-TR; Schneider & Margraf, 2006, which is the modified and extended German version of the Anxiety Disorders Interview Schedule for DSM-IV; ADIS-IV, Brown, DiNardo, & Barlow, 1994). We addressed weaknesses and limitations of previous investigations of the acceptance of structured or standardized interviews in this study (e.g., we used more precise Likert-type scales rather than dichotomous response items) (Pinninti et al., 2003). Similar to the approach of Hoyer and colleagues (2006), we also investigated the acceptance of structured interviews by inpatients, who often show higher comorbidity and are more severely disturbed than outpatients or patients in research settings.

Method

STUDY PROCEDURE

The sample was derived from a study of the psychometric properties of the DIPS for DSM-IV-TR. Between January 2005 and October 2005, ten certified interviewers conducted a total of 183 DIPS interviews. After completing the DIPS interviews, all patients and all interviewers completed a self-report questionnaire designed specifically for this

study about their satisfaction with the interview. The questionnaire was filled out anonymously, unless help was needed, and put in a coded envelope and sealed by the patients. The same procedure applied for the interviewers.

DIPS FOR DSM-IV-TR

The DIPS (Schneider & Margraf, 2006) is a structured diagnostic interview designed to assess the most relevant mental disorders based on the definitions and criteria of the DSM-IV-TR (American Psychiatric Association, 2000). It includes diagnostic criteria for anxiety disorders, depressive disorders, somatoform, eating, and sleeping disorders, alcohol and substance disorders, and borderline personality disorder. To assess lifetime diagnoses, the DIPS for DSM-IV-TR asks for information about current and past episodes of disorder. Furthermore, the DIPS for DSM-IV-TR gathers therapy-relevant information. The DIPS is a reliable interview (Suppiger et al., 2008) with good construct validity (In-Albon et al., 2008).

PATIENT ACCEPTANCE QUESTIONNAIRE

The Patient Acceptance Questionnaire (see Appendix 1) was developed for this study. Item selection was based on theories and research on factors relevant to the therapist-patient relationship. A scale ranging from 0 (*not at all satisfied*) to 100 (*totally satisfied*) measured overall satisfaction regarding being interviewed with a structured interview. In addition, the questionnaire included another four items drawn from existing scales measuring reactions to therapeutic interventions (Grawe & Braun, 1994; Schindler, 1991) and six items developed by the authors of this study. Five items were positively formulated (items 1, 6, 7, 9, 10) and five negatively formulated (items 2–5, 8). Participants made their responses on a 4-point Likert-type scale ranging from 0 to 3, for which 0 = *disagree*, 1 = *slightly agree*, 2 = *almost completely agree*, and 3 = *completely agree*.

FACTOR STRUCTURE OF THE PATIENT ACCEPTANCE QUESTIONNAIRE

Concerning the Patient Acceptance Questionnaire, a 2-factor solution was observed, accounting for 34.6% of the variance. The first factor, composed of “mental effort” items, accounted for 18.5% of the variance and contained items such as “I feel more confused than before the interview” and “The interview was exhausting.” Corrected item-total correlations ranged from .28 to .62. The second factor included “emotional reaction” items (e.g., “The procedure used by the interviewer was helpful” and “The relationship to the interviewer was

positive”) and accounted for 16.1% of the variance. Corrected item-total correlations ranged from .30 to .52. Cronbach's alpha for the mental effort factor was .70 and for the emotional reaction factor was .66. Cronbach's alpha for the full scale was .50. Regarding validity, responses to the item, “I didn't report everything that was bothering me,” displayed a mean of 0.56 ($SD=0.06$; 0 = *disagree*, 1 = *slightly agree*).

INTERVIEWER ACCEPTANCE QUESTIONNAIRE

The Interviewer Acceptance Questionnaire (see Appendix 2) was also developed for this study. A scale ranging from 0 (*not at all satisfied*) to 100 (*totally satisfied*) measured overall satisfaction about conducting the interview. In addition to this key item, the questionnaire included one item drawn from an existing scale measuring reactions to therapeutic interventions (Schindler, 1991) and nine items developed by the authors of this study. Six items were positively formulated (items 1, 3, 5, 6, 9, 10) and four negatively formulated (items 2, 4, 7, 8). Participants made their responses on a 4-point Likert-type scale ranging from 0 to 3, for which 0 = *disagree*, 1 = *slightly agree*, 2 = *almost completely agree*, and 3 = *completely agree*.

FACTOR STRUCTURE OF THE INTERVIEWER ACCEPTANCE QUESTIONNAIRE

Concerning the Interviewer Acceptance Questionnaire, a 2-factor solution was again observed, accounting for 39.5% of the variance. The first factor was composed of “emotional reaction” items and accounted for 21.8% of the variance. It contained items such as “The relationship to the patient was positive” and “I succeeded in being responsive to the patient.” Corrected item-total correlations ranged from .32 to .56. The second factor included “mental effort” items such as “I conducted the interview as well as I could” and “I found it difficult to get all the relevant information needed to clarify the diagnostic picture.” This factor accounted for 17.7% of the variance. Corrected item-total correlations ranged from .22 to .44. Cronbach's alpha for the emotional response factor was .71 and for the mental effort factor was .36. Cronbach's alpha for the full scale was .35. Two items (“I made mistakes in administering the interview” and “I think the patient did not report everything that was bothering him/her”) could not be included in these two factors.

INTERVIEWERS AND TRAINING

The interviewers were 10 female clinical psychologists (master's level), averaging 29.3 years of age ($SD=1.6$; range 26–32). Two of the interviewers

received training in the administration of the ADIS-IV at the Center for Stress and Anxiety Disorders in Albany, New York, and the Center for Anxiety and Related Disorders at Boston University, respectively. Before participating in the study, all diagnosticians were required to undergo systematic training and meet strict certification criteria in the administration of the DIPS for DSM-IV-TR. The standardized training (Brown, Di Nardo, Lehman, & Campell, 2001; Schneider, In-Albon, & Margraf, 2006) included the following steps:

1. *Introduction.* Trainees read the manual and conducted at least one interview with a friend as the “patient.”
2. *Observation.* While observing at least two live interviews conducted by a certified interviewer, trainees made ratings and diagnoses. After the interview, the trainee and the certified interviewer compared and discussed diagnoses and dimensional ratings.
3. *Collaboration.* Trainees administered at least three collaborative interviews in which they assumed primary responsibility for DIPS administration but a certified interviewer could interject as needed (e.g., ask additional diagnostic questions the trainee had forgotten or provide an indication of when a diagnostic section could be skipped).
4. *Certification.* Trainees administered a minimum of three interviews under observation of a certified interviewer. The criteria for DIPS certification were that in at least three of five consecutive interviews, trainees' diagnoses matched the certified interviewer's diagnoses and that trainees could not make any administrative errors.

PARTICIPANT RECRUITMENT AND SELECTION PROCEDURES

Participants were recruited from among patients at three inpatient psychiatric units ($n=90$, 51.6%) and two outpatient units ($n=56$, 28.6%) in Switzerland and Germany and from a research study at the University of Basel ($n=37$, 19.8%). Insufficient knowledge of the German language was an exclusion criterion. The participating institutions arranged the recruitment in their patient sample. After the study description was given, written informed consent of all participants was obtained. No monetary compensation was provided to participants.

PARTICIPANTS

The sample consisted of 120 (65.6%) women and 63 (34.4%) men with a mean age of 38.56 years

($SD=13.05$; range 17–82). Ninety-seven (53.0%) were married or lived with a partner, 69 (37.7%) were single, 14 (7.6%) were separated or divorced, and 3 (1.7%) were widowed. The educational background of the participants ranged from eighth grade to professional education with a mean number of school years attended of 11.32 ($SD=2.50$). On average, interviewers made 2.33 ($SD=1.84$; range 0–9) diagnoses per participant. The mean Global Assessment of Functioning (GAF) scale score was 65.03 ($SD=14.79$, range 35–97). Table 1 shows primary diagnoses of the sample.

STATISTICAL ANALYSIS

All statistical analyses were conducted with SPSS 11.0 for Mac OS X. To guarantee the independence of measures, the questionnaire responses from the first interview, but not the retest interview (conducted to evaluate the test-retest reliability of the DIPS for DSM-IV-TR), were included in analyses of patients' and interviewers' acceptance. Because of the scales' nonnormality, Spearman's rho was used as the measure of association.

Results

The duration of the diagnostic interview ranged from 17 to 241 min ($M=104.87$, $SD=47.72$). Eight patients (4%) were unable to complete the inter-

view, because of fatigue as a result of multiple medications or severe psychiatric symptoms. None of the patients or interviewers refused to complete the acceptance questionnaire.

PATIENT ACCEPTANCE

A total of 183 patients completed the Patient Acceptance Questionnaire. On the scale measuring overall satisfaction with the interview (0=*not at all satisfied*, 100=*totally satisfied*), the mean patient rating was 86.55 ($SD=13.18$) with a range from 50 ($n=5$) to 100 ($n=56$). The overall satisfaction with the DIPS for DSM-IV-TR was high in the different settings (see Table 2). One-way analyses of variance were used to compare the mean levels of satisfaction across settings. There was a significant between-group difference, $F(2, 171)=6.14$, $p<.01$. Post hoc Bonferroni-corrected contrasts revealed a significantly higher satisfaction for patients from the research setting compared to the in- and outpatient samples ($p's<0.01$). However, in the clinical settings, satisfaction scores remained quite high. Means and standard deviations for individual items and different settings are shown in Table 2. In addition, Fig. 1 shows the overall satisfaction rating for the primary diagnoses of the sample. There was a significant between-group difference, $F(2, 133)=2.75$, $p=.02$. Post hoc Bonferroni-corrected contrasts revealed significant higher satisfaction for participants without a diagnosis compared to patients with major depression. No other comparisons were significant, indicating that there were no differences in being satisfied with the interview across diagnoses.

Further analysis showed that 78.5% of the patients completely or almost completely agreed that the procedure used by the interviewer was helpful. Only 6.6% thought that the procedure was not at all helpful. The majority of patients agreed completely (76.9%) or almost completely (19.8%) that the relationship to the interviewer was positive. Only 1.6% rated the relationship as not at all positive. At least 90% of the patients responded that the interviewer took their problems seriously and asked for enough detail to get an appropriate understanding of their situation (agreed completely or almost completely with Items 6 and 10). Furthermore, only a minority of patients agreed completely or almost completely that the interview was exhausting (14.2%). Less than 15% of the patients agreed completely or almost completely with the statements "There were too many questions," "I feel more confused," and "I feel questioned out." Only 13.1% of the patients completely or almost completely agreed with the statement "I didn't report everything that was bothering me," and 65.7% endorsed a better understanding of

Table 1
Primary diagnoses of the sample ($N=183$)

Diagnoses	Frequency (Percent)
No diagnosis	41 (22.4)
Panic Disorder with or without Agoraphobia/Agoraphobia without Panic	19 (10.4)
Social Phobia	18 (9.8)
Specific Phobia	4 (2.2)
Generalized Anxiety Disorder	3 (1.6)
Obsessive-Compulsive Disorder	9 (4.9)
Post-Traumatic Stress Disorder	7 (3.8)
Major Depression, Single Episode or Recurrent	40 (21.9)
Bipolar Disorder I	2 (1.1)
Dysthymic Disorder	2 (1.1)
Hypochondriasis	3 (1.6)
Somatoform Disorder/Undifferentiated Somatoform Disorder	3 (1.6)
Anorexia Nervosa	2 (1.1)
Bulimia Nervosa	4 (2.2)
Binge Eating Disorder	3 (1.6)
Insomnia/ Hypersomnia	2 (1.1)
Substance-Related Disorders	17 (9.3)
Borderline Personality Disorder	11 (6.0)
Other Disorders	4 (2.2)

Table 2
Means (M) and standard deviations (SD) for the Patient Acceptance Questionnaire for different settings

Item no.	Item	All settings (N=183)	Inpatient (n=90)	Outpatient (n=56)	Research (n=37)
		M (SD)	M (SD)	M (SD)	M (SD)
	Overall satisfaction	86.55 (13.18)	84.63 (14.31)	85.00 (11.52)	93.38 (10.42)
1	Helpful	2.12 (0.90)	1.97 (0.89)	2.33 (0.72)	2.17 (1.08)
2	More confused	0.28 (0.60)	0.31 (0.61)	0.34 (0.67)	0.11 (0.39)
3	Felt questioned	0.46 (0.74)	0.56 (0.78)	0.39 (0.65)	0.35 (0.75)
4	Too many questions	0.70 (0.89)	0.89 (0.99)	0.66 (0.79)	0.30 (0.62)
5	Exhausting	0.61 (0.80)	0.83 (0.90)	0.55 (0.69)	0.16 (0.44)
6	Felt taken seriously	2.48 (0.80)	2.46 (0.80)	2.66 (0.61)	2.27 (0.99)
7	Positive relationship	2.72 (0.58)	2.71 (0.57)	2.82 (0.39)	2.59 (0.80)
8	Did not report everything	0.56 (0.83)	0.69 (0.87)	0.45 (0.76)	0.43 (0.80)
9	Better understanding	0.94 (0.87)	1.02 (0.92)	0.95 (1.80)	0.74 (0.85)
10	Detailed questioning	2.51 (0.66)	2.39 (0.73)	2.64 (0.52)	2.61 (0.60)

Note. Overall satisfaction rated on scale of 0 to 100 (0=not at all satisfied, 100=totally satisfied); all other items rated on a scale of 0 to 3 (0=disagree, 1=slightly agree, 2=almost completely agree, 3=completely agree); items 1–10 are given in full in Appendix 1.

themselves and their problems as a result of the interview (agreed at least a little with Item 9).

Table 3 shows the correlations between the items of the Patient Acceptance Questionnaire and the duration of the interview and the GAF scale. Except for Item 5 (“The interview was exhausting,” $r < .31$), all correlations were modest.

INTERVIEWER ACCEPTANCE

Ten interviewers rated a total of 182 interviews to assess interviewer acceptance of the DIPS structured interview (one interviewer failed to fill out one questionnaire). On the scale measuring overall

satisfaction with the interview (0=not at all satisfied, 100=totally satisfied), the mean interviewer rating was 85.82 (SD=12.84) with a range from 30 (n=1) to 100 (n=35). The overall satisfaction with the DIPS for DSM-IV-TR was high in the different settings. Means and standard deviations for individual items and different settings are shown in Table 4.

Further analysis showed that in the majority of cases the interviewers agreed completely or almost completely that they felt qualified in administering the interview (96.9%) and could respond adequately to the patient (92.6%). In less than 10% of

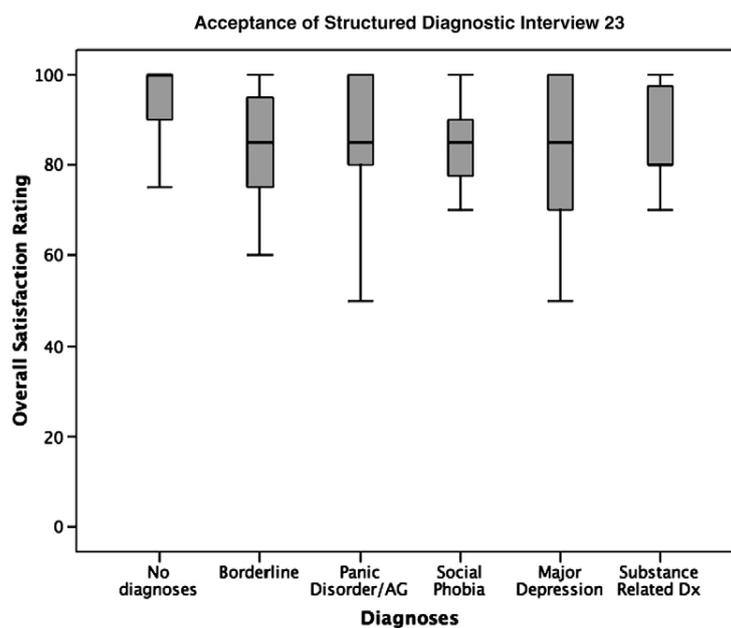


FIGURE 1 Boxplot of the overall satisfaction rating from the Patient Acceptance Questionnaire (0=not at all satisfied; 100=totally satisfied) by primary diagnosis.

Table 3
Correlations of items of the Patient Acceptance Questionnaire with duration of interview in minutes and the Global Assessment Functioning (GAF) Scale

Item no.	Item	Duration of interview		GAF Scale	
		r	p	r	p
	Overall satisfaction	-.29	<.01	.31	<.01
1	Helpful	-.15	.02	.11	.07
2	More confused	.23	<.01	-.20	<.01
3	Felt questioned	.18	.01	-.28	<.01
4	Too many questions	.26	<.01	-.26	<.01
5	Exhausting	.46	<.01	.42	<.01
6	Felt taken seriously	.06	.22	-.10	.10
7	Positive relationship	.09	.11	.01	.46
8	Did not report everything	.23	<.01	-.26	<.01
9	Better understanding	.07	.19	-.27	.36
10	Detailed questioning	-.07	.17	.09	.13

Note. Correlation coefficients according to Spearman's rho; items 1–10 are given in full in Appendix 1.

the interviews the interviewers agreed completely or almost completely with the statements “I found it difficult to get all the relevant information needed to clarify the diagnostic picture” and “I made mistakes in administering the interview.” In only a small number of cases (16.3%) did interviewers agree completely or almost completely that the interview was exhausting. In the majority of interviews the interviewer agreed completely (68.1%) or almost completely (25.5%) that the relationship to the patient was positive. In only one interview (0.5%) did the interviewer rate the relationship as not at all positive. The interviewers agreed completely or almost completely in 96.9% of cases with the statement, “I experienced the patient as cooperative” and in 81.0% with the statement, “The patient perceives himself/herself and his/her problems in a

Table 4
Means (M) and standard deviations (SD) for the Interviewer Acceptance Questionnaire for different settings

Item no.	Item	All settings (N=183)	Inpatient (n=90)	Outpatient (n=56)	Research (n=36)
		M (SD)	M (SD)	M (SD)	M (SD)
	Overall satisfaction	85.82 (12.84)	83.68 (14.93)	86.40 (9.05)	90.00 (11.55)
1	Administration	2.89 (0.33)	2.91 (0.29)	2.90 (0.30)	2.84 (0.48)
2	Clarification difficulties	0.59 (0.75)	0.75 (0.88)	0.56 (0.62)	0.22 (0.42)
3	Competence	2.56 (0.56)	2.52 (0.57)	2.53 (0.59)	2.71 (0.46)
4	Mistakes	0.46 (0.64)	0.56 (0.74)	0.42 (0.53)	0.27 (0.51)
5	Differentiated perception	2.18 (0.79)	2.09 (0.79)	2.20 (0.77)	2.37 (0.79)
6	Positive relationship	2.61 (0.62)	2.53 (0.67)	2.73 (0.52)	2.61 (0.64)
7	Did not report everything	0.60 (0.78)	0.66 (0.84)	0.46 (0.72)	0.68 (0.74)
8	Exhausting	0.63 (0.89)	0.78 (1.00)	0.52 (0.72)	0.47 (0.83)
9	Patient's cooperation	2.72 (0.56)	2.64 (0.64)	2.81 (0.44)	2.74 (0.50)
10	Empathy	2.41 (0.63)	2.28 (0.65)	2.56 (0.56)	2.47 (0.60)

Note. Overall satisfaction rated on scale of 0 to 100 (0=not at all satisfied, 100=totally satisfied); all other items rated on a scale of 0 to 3 (0=disagree, 1=slightly agree, 2=almost completely agree, 3=completely agree); items 1–10 are given in full in Appendix 2.

Table 5
Correlations of items of the Interviewer Acceptance Questionnaire with duration of interview in minutes and the Global Assessment Functioning (GAF) Scale

Item no.	Item	Duration of interview		GAF Scale	
		r	p	r	p
	Overall satisfaction	-.39	<.01	.27	<.01
1	Administration	-.07	.18	.03	.34
2	Clarification difficulties	.42	<.01	-.42	<.01
3	Competence	-.28	<.01	.06	.22
4	Mistakes	.28	<.01	-.30	<.01
5	Differentiated perception	-.22	<.01	.18	.01
6	Positive relationship	.04	.29	.10	.09
7	Did not report everything	.02	.38	-.03	.33
8	Exhausting	.38	<.01	-.25	<.01
9	Patient's cooperation	.05	.26	.11	.06
10	Empathy	-.08	.13	.05	.27

Note. Correlation coefficients according to Spearman's rho; items 1–10 are given in full in Appendix 2.

differentiated manner.” In only 14.3% of cases the interviewers thought that the patient had not reported everything that was bothering him or her (agreed completely or almost completely with Item 7).

Table 5 shows the correlations between the items of the Interviewer Acceptance Questionnaire and the duration of interview and the GAF scale. Except for Item 2 (“I found it difficult to get all the relevant information needed to clarify the diagnostic picture” $r<.39$), all correlations were modest.

Discussion

The results of this study indicate that patients and interviewers participating in a diagnostic procedure using a structured interview reported high satisfaction with the interview. The overall satisfaction

with the structured interview was very high, both for patients and for interviewers, indicating that the DIPS for DSM-IV-TR (Schneider & Margraf, 2006) is well accepted for diagnostic purposes in inpatient, outpatient, and research settings. These data corroborate findings of previous studies (Hoyer et al., 2006; Jonasson et al., 1997; Sbrana et al., 2003; Wittchen et al., 1991, 1993) that showed that structured interviews are accepted and therefore applicable not only in outpatient but also in inpatient settings, which are often characterized by more severely disturbed patients and higher comorbidity than research or outpatient settings.

Although comorbidity was high and the administration time was sometimes long, the dropout rate during the interview was low (4%). Moreover, 96% of the patients were willing to do the test-retest interview. The common belief that a diagnostic assessment including structured interviews is necessarily intrusive and harmful for patients was not supported by our data.

As 10 different diagnosticians conducted the interviews, the positive reactions to the structured interview are unlikely to be attributable to one individual diagnostician's style and personality. However, because only female interviewers were included in the study, the potential effects of gender could not be evaluated. We also note that, as the interviewers were not selected from the ranks of practicing clinicians but were research interviewers and thoroughly trained in the assessment of the DIPS, ratings of these interviewers may not generalize to untrained clinicians, an issue we are currently investigating.

Our results are comparable to clinical trial findings of Marshall and colleagues (2001), who showed that questionnaires and interviews were not perceived as intrusive or disruptive and had a slight to moderate positive impact on promoting self-realization and facilitating therapy. Moreover, we showed that patients experienced the diagnostic interview and the relationship with the interviewer as positive and useful, even though interviewers followed structured guidelines. As patients appreciated the explicit questioning and the therapist's ability to empathize with their current situation, we conclude that a detailed and structured diagnostic assessment does not interfere with the formation of a therapeutic relationship. Such an assessment can even support the beginning of a stable and trusting therapeutic relationship. Results further indicated that no differences emerged for being satisfied with the interview across diagnoses.

To increase the use of structured interviews among practicing clinicians, two points can be considered. First, greater attention should be given

to providing training in structured diagnostic interviewing in graduate and internship training programs in clinical psychology. Second, students and clinicians should be informed about the psychometric properties and the acceptability of structured interviews.

In summary, together with the existing evidence of the reliability and validity of structured interviews, our findings should encourage their use in the diagnostic process, in outpatient and inpatient clinical settings as well as in research studies. Taking into account that the data were collected in a strict study design, even higher acceptance in clinical practice might be expected.

Appendix 1: Patient Acceptance Questionnaire

The patient acceptance questionnaire assessed global satisfaction with the structured interview (rating scale from 0 = not at all satisfied to 100 = totally satisfied).

An additional 10 items measured the patient's acceptance of structured interviews (4-point Likert-type scale ranging from 0 = disagree to 3 = completely agree).

- | | | |
|-----|--|--|
| 1. | The procedure used by the interviewer was helpful. | (Das Vorgehen des Interviewers habe ich als hilfreich erlebt). |
| 2. | I feel more confused than before the interview. | (Ich fühle mich verwirrt als vor dem Interview). |
| 3. | I feel "questioned out." | (Ich fühle mich ausgefragt). |
| 4. | There were too many questions. | (Es waren mir zu viele Fragen). |
| 5. | The interview was exhausting. | (Das Interview war zu anstrengend). |
| 6. | I think the interviewer took my problems seriously. | (Ich habe das Gefühl, der Interviewer nimmt meine Probleme ernst). |
| 7. | The relationship to the interviewer was positive. | (Die Beziehung zum Interviewer habe ich als angenehm empfunden). |
| 8. | I didn't report everything that was bothering me. | (Heute habe ich nicht alles vorgebracht, was mich wirklich bewegte). |
| 9. | Due to the interview I have a better understanding of myself and my problems. | (Ich habe das Gefühl, dass ich mich selber und meine Probleme nach dem Interview besser verstehe). |
| 10. | I think the interviewer asked for enough detail to get an appropriate understanding of my situation. | (Ich denke, der Interviewer hat genau nachgefragt, um meine Situation zu verstehen). |

Appendix 2: Interviewer Acceptance Questionnaire

The interviewer acceptance questionnaire assessed global satisfaction with the structured interview

(rating scale from 0 = not at all satisfied to 100 = totally satisfied).

An additional 10 items measured the interviewer's acceptance of structured interviews (4-point Likert-type scale ranging from 0 = disagree to 3 = completely agree).

- | | | |
|-----|--|---|
| 1. | I conducted the interview as well as I could. | (Ich habe das Interview nach bestem Wissen und Können geführt). |
| 2. | I found it difficult to get all the relevant information needed to clarify the diagnostic picture. | (Ich fand es schwierig mit Hilfe des DIPS die für die Diagnosen notwendigen Informationen zu erhalten). |
| 3. | While conducting the interview I felt competent. | (Bei der Durchführung des Interviews fühlte ich mich kompetent). |
| 4. | I made mistakes in administering the interview. | (Bei der Interviewführung sind mir Fehler unterlaufen). |
| 5. | The patient perceives himself/herself and his/her problems in a differentiated manner. | (Der Patient nimmt sich und seine Probleme differenziert wahr). |
| 6. | The relationship to the patient was positive. | (Die Beziehung zum Patienten habe ich als angenehm erlebt). |
| 7. | I think the patient did not report everything that was bothering him/her. | (Ich denke, der Patient hat nicht alles hervorgebracht, was ihn bewegte). |
| 8. | The interview was exhausting. | (Ich empfand das Interview als zu anstrengend). |
| 9. | During the interview I experienced the patient as cooperative. | (Ich erlebte den Patienten im Gespräch als kooperativ). |
| 10. | I succeeded in being responsive to the patient. | (Es ist mir gelungen auf den Patienten einzugehen). |

References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders*, 4th ed., text revision. Washington, DC: Author.
- Brown, T. A., Di Nardo, P. A., & Barlow, D. H. (1994). *Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV)*. New York: Oxford University Press.
- Brown, T. A., Di Nardo, P. A., Lehman, C. L., & Campell, L. A. (2001). Reliability of DSM-IV anxiety and mood disorders: Implications for the classification of emotional disorders. *Journal of Abnormal Psychology*, 110, 49–58.
- Grawe, K., & Braun, U. (1994). Qualitätskontrolle in der Psychotherapiepraxis. *Zeitschrift für Klinische Psychologie*, 23, 242–267.
- Hoyer, J., Ruhl, U., Scholz, D., & Wittchen, H. -U. (2006). Patients' feedback after computer-assisted diagnostic interviews for mental disorders. *Psychotherapy Research*, 16, 357–363.
- In-Albon, T., Suppiger, A., Schlup, B., Wendler, S., Margraf, J., & Schneider, S. (2008). Validität des Diagnostischen Interviews für psychische Störungen. *Zeitschrift für Klinische Psychologie und Psychotherapie*, 37, 33–42.
- Jonasson, B., Jonasson, U., Ekselius, L., & Knorrning, L. (1997). The feasibility of a new intake routine to assess substance use disorders by means of a structured interview. *General Hospital Psychiatry*, 19, 36–41.
- Marshall, R. D., Spitzer, R. L., Vaughan, S. C., Vaughan, R., Mellmann, L. A., MacKinnon, R. A., & Roose, S. P. (2001). Assessing the subjective experience of being a participant in psychiatric research. *American Journal of Psychiatry*, 158, 319–321.
- Pinninti, N. R., Madison, H., Musser, E., & Rissmiller, D. (2003). MINI International Neuropsychiatric Schedule: Clinical utility and patient acceptance. *European Psychiatry*, 18, 361–364.
- Sbrana, A., Dell'Osso, L., Gonnelli, C., Impagnatiello, M. R., Doria, M. R., Spagnoli, S., et al. (2003). Acceptability, validity and reliability of the structured clinical interview for the spectrum of substance use (SCI-SUBS): A pilot study. *International Journal of Methods in Psychiatric Research*, 12, 105–115.
- Schindler, L. (1991). *Die empirische Analyse der therapeutischen Beziehung: Beiträge zur Prozessforschung in der Verhaltenstherapie*. Berlin: Springer.
- Schneider, S., & Margraf, J. (2006). *Diagnostisches Interview bei psychischen Störungen (DIPS)*. Heidelberg: Springer.
- Schneider, S., In-Albon, T., & Margraf, J. (2006). Handbuch zum Diagnostischen Interview bei psychischen Störungen (DIPS). In S. Schneider, & J. Margraf (Eds.), *Diagnostisches Interview bei psychischen Störungen (DIPS)*. Heidelberg: Springer.
- Suppiger, A., In-Albon, T., Herren, C., Bader, K., Schneider, S., & Margraf, J. (2008). Reliabilität des Diagnostischen Interviews für psychische Störungen (DIPS für DSM-IV-TR) unter Routinebedingungen. *Verhaltenstherapie*, 18(4), 237–244.
- Wittchen, H. U., Essau, C. A., Rief, W., & Fichter, M. (1993). Assessment of somatoform disorders and comorbidity patterns with the CIDI: Findings in psychosomatic patients. *International Journal of Methods in Psychiatric Research*, 3, 87–99.
- Wittchen, H. U., & Pfister, H. (1997). *DIA-X/M-CIDI*. Frankfurt: Swets & Zeitlinger B.V, Swets Test Services.
- Wittchen, H. U., Robins, L. N., Cottler, L. B., Sartorius, N., Burke, J. D., & Regier, D. (1991). Cross-cultural feasibility, reliability and sources of variance of the Composite International Diagnostic Interview (CIDI). *British Journal of Psychiatry*, 159, 645–653.

RECEIVED: August 29, 2007

ACCEPTED: July 23, 2008

Available online 5 November 2008