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The Ghent Psychotherapy Study (GPS)

Submission date	Recruitment status	[X] Prospectively registered
29/01/2015	No longer recruiting	[X] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
25/02/2015	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
14/08/2023	Mental and Behavioural Disorders	

Plain English summary of protocol

Background and study aims
Major Depressive Disorder (MDD) is predicted to become the second biggest threat to public health worldwide by 2020. Therefore, it is crucial to develop therapies that are effective to treat a wide variety of depressed people. Currently, scientific research has shown that a number of different therapy forms are 'evidence based' treatments for MDD, such as Cognitive Behavioural Therapy (CBT) and Psychodynamic Therapy (PDT). However, although such treatments are generally effective, studies show big differences between individual patients. The aim in this study is to find out which type of psychotherapy works for depressed patients on the basis of their personalities.

Who can participate?
Adults with major depressive disorder.

What does the study involve?
Patients are randomly allocated to one of two treatments: manual-based time-fixed directive treatment condition (Cognitive Behavioral Therapy - CBT) or manual-based time-fixed explorative condition (Supportive-Expressive Therapy - SET). All patients receive 16 to 20 sessions of treatment, with each treatment lasting 45 minutes. Patients undergo a two-session intake procedure in which two diagnostic interviews are conducted by a specific member of the research team. If the patient's symptoms fit the profile of our research, the patient is randomly matched to a therapist. If not, the patient is referred to an alternative treatment facility that suits the patient's symptoms better. Alongside the treatment, a number of questionnaires, interviews and biological measures are administered regularly, for which the patient is compensated. After the treatment, the patient is followed up for 2 years, to monitor his or her wellbeing and to offer suitable treatment options if needed.

What are the possible benefits and risks of participating?
A substantial reduction of depression may be gained, such as in regular outpatient psychotherapy. There are no other benefits or risks expected by participating in this study.

Where is the study run from?
Ghent University (Belgium)

When is the study starting and how long is it expected to run for?
October 2015 to December 2018

Who is funding the study?
Ghent University (Belgium)

Who is the main contact?
Professor Mattias Desmet
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Contact information

Type(s)
Public

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Study information

Scientific Title
Differential efficacy of supportive-expressive and cognitive behavioral interventions in dependent and self-critical depressive patients: a randomised trial

Acronym
The Ghent Psychotherapy Study (GPS)

Study objectives
Current hypothesis as of 01/10/2015:
1. Null hypothesis (H0): there is no interaction effect between patients' personality type and type of therapy
2. Alternative hypothesis 1 (HA1: central hypothesis): there is a significant interaction effect between patients' personality type (dependent versus self-critical) and type of therapy in predicting outcome
3. Alternative hypothesis 2 (HA2): cognitive behavioural therapy (CBT) yields a significantly better outcome in dependent compared with self-critical patients
4. Alternative hypothesis 3 (HA3): supportive-expressive treatment (SET) yields a significantly better outcome in self-critical compared with dependent patients

Previous hypothesis:
1. Null hypothesis (H0): there is no interaction effect between patients' personality type and type of therapy.
2. Alternative hypothesis 1 (HA1: central hypothesis): there is a significant interaction effect between patients' personality type (dependent versus self-critical) and type of therapy in predicting outcome.
3. Alternative hypothesis 2 (HA2): cognitive behavioural therapy (CBT) yields a significantly better outcome in dependent compared with self-critical patients.
4. Alternative hypothesis 3 (HA3): supportive-expressive treatment (SET) yields a significantly better outcome in self-critical compared with dependent patients.
5. Alternative hypothesis (HA4): CBT alleviates depression symptoms in dependent patients through enhanced interpersonal functioning.
6. Alternative hypothesis (HA5): SET alleviates depression symptoms in self-critical patients through enhanced intrapersonal insight.
7. If HA1 is confirmed, HA2 and HA3 will be tested.
8. If HA2 is rejected, HA4 will not be tested.
9. If HA3 is rejected, HA5 will not be tested. In this case, the process variables associated with a change in depressive symptoms will be studied in an exploratory way by means of Psychotherapy Process Q Set (PQS) ratings of the transcripts of a sub-sample of the sessions.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Commissie Medische Ethiek of the Universitair Ziekenhuis Gent (Ghent University Hospital), 05/05/2015
An amendment was granted for changes in the design on 23/09/2015, ref: 2015/0085

Primary study design
Interventional

Study design
Interventional randomised parallel study

Study type(s)
Treatment

Health condition(s) or problem(s) studied

Major depressive disorder, conform criteria in Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

Interventions

Current interventions as of 01/10/2015:
Patients will be randomly assigned to one of two treatments:
1. Manual-based cognitive-behavioral treatment condition (CBT)
2. Manual-based short term psychodynamic treatment condition (SET)

The CBT condition uses the Protocolled Treatment for Adults with Depressive Disorder by Bockting and Huibers (2011) that is based on the Cognitive Behavioral Treatment protocol by Beck et al. (1979). The SET condition uses the Unified Protocol by Leichsenring and Schauenburg (2014) that is based on the manual for Supportive Expressive Time Limited Therapy by Luborsky. In both condition, patients will receive 16-20 sessions of treatment, with each treatment lasting 45 minutes. Therapists with a post-graduate training and comparable clinical experience in one of both treatment types, received two days of training in the respective treatment manuals. All therapists regularly attend supervision sessions. Adherence to the treatment manuals will be checked by the provided treatment fidelity checklists.

Previous interventions:
Patients will be randomly assigned to one of two treatments:
1. Manual-based time-fixed directive treatment condition (CBT)
2. Manual-based time-fixed explorative condition (SET)

All patients will receive 20 sessions of treatment, with each treatment lasting 45 minutes. All therapists have 4 to 8 years experienced in one of both treatment types, had a post-graduate training in the given approach, and receive a one-day training in the respective treatment manuals. All therapists regularly attend supervision sessions, offered by therapists with at least 10 years of experience.

Intervention Type

Behavioural

Primary outcome(s)

Current primary outcome measures as of 01/10/2015:
Baseline and post-treatment severity of depression symptoms is derived by the Dutch version of the Hamilton Rating Scale for Depression (HDRS). Two external raters are trained to reach adequate interrater-reliability. The raters are blind to the research hypotheses, the research design, and the conditions to which the patients were assigned. The HDRS is rated on semi-structured pre- and post interviews (adjusted SCID-I for baseline severity and HDRS interview for post-treatment severity; see above and below) that are rated in random order, in order to avoid expectancy biases.

Previous primary outcome measures:
The Beck Depression Inventory-II, Dutch version (BDI-II-NL) is a symptom-specific questionnaire with 21 self-rated items, which indicates the severity of symptom of Major Depressive Disorder. It will be administered pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up.

Key secondary outcome(s)

Current secondary outcome measures as of 01/10/2015:
1. The Beck Depression Inventory-II, Dutch version (BDI-II-NL) is a symptom-specific questionnaire with 21 self-rated items, which indicates the severity of symptoms of Major Depressive Disorder. It will be administered pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up.
2. The Inventory of Interpersonal Problems-32 (IIP-32) is a self-rated questionnaire with 32 items that indicates the most salient interpersonal problems. It is administered pre-treatment and posttreatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up.
3. The Symptom Checklist-90-Revised (SCL-90-R) is a self-rated questionnaire with 90 items that indicates a range of psychopathology symptoms. It is administered pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up.
4. Outcome Questionnaire-45 (OQ-45) is a self-rated questionnaire with 45 items that indicates general wellbeing. It is administered pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up.
5. The shortened Depression Anxiety and Stress Scale (DASS) is a 21-item self-report questionnaire on the presence and severity of symptoms of depression, anxiety and stress. It is administered pretreatment and post-treatment, at every session of the treatment process, and at 3-month, 6-month, 12-month and 24-month follow-up.
6. Cortisol stress levels are analyzed as indicators of stress, by means of mass spectrometry of saliva and hair samples. The saliva samples are gathered for four consecutive days (one sample early morning and one late evening every day) at pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up. The hair-samples are gathered at pre-treatment, peri-treatment and post-treatment and at 6-month and 24-month follow-up.
7. Cost-efficiency by means of health-care cost information is retrieved via the Inter-mutualistic Agency (http://www.nic-ima.be), covering a period starting 3 years pretreatment until 2 years post-treatment. This is one of the only ways to gather objective information on a longer period before the patient enters therapy; and it can be used to get a clear picture of antidepressant medication use.

Process Measures / Clinical Predictors
1. The Client Change Interview (CCI) is a semi-structured interview focused at patient experience of the process of change during and following the treatment process. It is administered around the 12th treatment session, at post treatment and at 6-month and 24-month follow-up.
2. An idiosyncratic complaint is formulated at the onset of treatment, and rated by the patient on a continuous scoring line (the far left end indicates absence of the complaint, the far right end indicates full presence and severe suffering from the complaint). It is rated retrospectively for the week before each treatment session.
3. Medication use changes are indicated at every treatment session.
4. The Emotion Checklist is a visual analogous scale (VAS) with ten scales on which the current emotional state is rated before every treatment session.
5. The Working Alliance Inventory (WAI) is a 12-item questionnaire focused on the working alliance between the therapist and the patient as experienced during the treatment session. The questionnaire is completed every 4th session by both the patient and the therapist.
6. The Core Conflictual Relationship Theme (CCRT) is a rating scale instrument that indicates interactional patterns in treatment processes, which is used to study recurrent relationship patterns coming forth from the transcripts. Two independent raters, blind with respect to the research design, are trained to do the CCRT ratings. All treatment sessions are audiotaped and (partly) transcribed for the purpose of such qualitative analyses.
7. Biomarkers and epigenetics are analyzed by means of mass spectrometry of blood samples

that are gathered at pre-treatment and post-treatment.
8. The Shortened Character-Temperament questionnaire (SCTI) is a personality questionnaire with 104 self-rated items, which assesses character and temperament profiles. It will be administered pre- and post-treament.
9. The Experiences in Close Relationships, Dutch version (ECR) is a self-report questionnaire with 36 items to assess adult attachment style. It will be administered pre-treatment and post-treatment.
10. The Zelfinventarisatievragenlijst Posttraumatische Stoornis (ZIL) is a symptom-specific questionnaire with 22 self-rated items, which assesses the presence of posttraumatic stress disorder symptoms. It will be administered pre-treatment, peri-treatment (at session 8) and post-treatment, and at 12-month follow-up.
11. The VAS for Countertransference is a visual analogue scale that inquires countertransference by the therapist. It consists of 7 subscales for countertransference and is completed by the therapist after treatment sessions 1-3, 5-7, 9-11, 13-15 and 17 -19.
12. The Therapist Response Questionnaire, Dutch version (TRQ) is a 79-item self-report questionnaire which measures countertransference in the therapist. It is completed by the therapist after sessions 4, 8, 12, 16 and 20.

Screening materials
1. The Structured Clinical Interview for Diagnostic and Statistical Manual of Mental (DSM) Disorders (SCID-I) is used to screen potential participants before the treatment process. If patients meet the criteria for major depressive disorder, additional screening is done, starting with the administration of the SCID-II to exclude patients with manifest substance abuse, acute psychotic symptoms and/or suicidal ideations, and to detect comorbidity. After treatment, the SCID-I and SCID-II are administered again to indicate changes in psychopathology.
2. The Clinical Diagnostic Interview (CDI), a semi-structured interview that assesses DSM-IV-TR Axis I and II symptoms narratively, is administered to indicate comorbidity and severity of symptoms from the patient's experience.
3. Personality styles or potential participants are identified by the rating of transcribed CDIs, using clinical vignettes provided by Werbart and Forsström (2014). These vignettes includes a list of typical needs, concerns, relational attitudes, and coping mechanisms of both dependency and self-criticism, all rated on a 5 point rating scale ranging from 'little or no match' to 'very good match (prototypical case)'. Inter-rater reliabilities observed with this procedure are adequately high (ranging between .85 and .95). A team of postgraduate research assistants is trained until adequate inter-rater reliability with an expert rater is reached. Inter-rater reliabilities observed with this procedure are adequately high (ranging between 0.85 and 0.95). Prototype matching for each patient is conducted in supervised cartel discussions.
4. The personality styles identified by ratings, are validated by administration of the self-rating questionnaires the Personality Style Inventory (PSI) and the Depressive Experiences Questionnaire (DEQ). The PSI distinguishes between the dependent and the self-critical personality style. The DEQ distinguishes between the sociotropic and autonomous personality styles, which resemble the dependent and the self-critical personality style, respectively.
A number of materials such as the SCID, the CDI and the BDI-II-NL are based on the diagnostic typology described in DSM-IV-TR. As the DSM-IV-TR was recently replaced by DSM-V, but no (Dutch translations of) updated versions of the measures are available yet, in this study the current measures are still used. Nonetheless, we compared the DSM-IV and DSM-V thoroughly, to be able to anticipate changes in the SCID's items over the course of our study.

Previous secondary outcome measures:
1. The Inventory of Interpersonal Problems-32 (IIP-32) is a self-rated questionnaire with 32 items that indicates the most salient interpersonal problems. It is administered pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-

month and 24-month follow-up.
2. The Symptom Checklist-90-Revised (SCL-90-R) is a self-rated questionnaire with 90 items that indicates a range of psychopathology symptoms. It is administered pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up.
3. Outcome Questionnaire-45 (OQ-45) is a self-rated questionnaire with 45 items that indicates general wellbeing. It is administered pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up.
4. The shortened Depression Anxiety and Stress Scale (DASS) is a 21-item self-report questionnaire on the presence and severity of symptoms of depression, anxiety and stress. It is administered pre-treatment and post-treatment, at every session of the treatment process, and at 3-month, 6-month, 12-month and 24-month follow-up.
5. The Client Change Interview (CCI) is a semi-structured interview focused at patient experience of the process of change during and following the treatment process. It is administered around the 12th treatment session, at post treatment and at 6-month and 24-month follow-up.
6. An idiosyncratic complaint is formulated at the onset of treatment, and rated by the patient on a continuous scoring line (the far left end indicates absence of the complaint, the far right end indicates full presence and severe suffering from the complaint). It is rated retrospectively for the week before each treatment session.
7. The Working Alliance Inventory (WAI) is a 12-item questionnaire focused on the working alliance between the therapist and the patient as experienced during the treatment session. The questionnaire is completed every session by both the patient and the therapist.
8. Medication use changes are indicated at every treatment session.
9. Cortisol stress levels are analysed as indicators of stress, by means of mass spectrometry of saliva and hair samples. The saliva samples are gathered for four consecutive days (one sample early morning and one late evening every day) at pre-treatment and post-treatment, at sessions 4, 8, 12, and 16 during treatment, and at 3-month, 6-month, 12-month and 24-month follow-up. The hair-samples are gathered at pre-treatment, peri-treatment and post-treatment and at 6-month and 24-month follow-up.
10. Every treatment session is audiotaped. Sessions 4, 8, 12, and 16 of treatment are transcribed by independent transcribers who are blind to the research hypotheses. The Core Conflictual Relationship Theme (CCRT)—a rating scale instrument that indicates interactional patterns in treatment processes—is used to study recurrent relationship patterns coming forth from the transcripts. Two independent raters, blind with respect to the research design, are trained to do the CCRT ratings.
11. Cost-efficiency by means of health-care cost information is retrieved via the Inter-mutualistic Agency (http://www.nic-ima.be), covering a period starting 3 years pre-treatment until 2 years post-treatment. This is one of the only ways to gather objective information on a longer period before the patient enters therapy; and it can be used to get a clear picture of antidepressant medication use.

Measures of mediator variables
1. In case HA2 and/or HA3 are rejected, the PQS will be used to further investigate the therapeutic processes. The PQS is a researcher-rated 100-item Q-sort that offers a quantification of a broad range of process variables. A researcher will be trained until he or she reaches high inter-rater reliability with a qualified PQS-rater. After that, every fourth session will be rated to assess a variety of process variables and to study associations with outcome.
2. Therapists' adherence to respective types of treatment will be assessed by means of a Treatment Fidelity Checklist, as proposed by Beck.

Screening materials
1. The Structured Clinical Interview for Diagnostic and Statistical Manual of Mental (DSM)

Disorders (SCID-I) is used to screen potential participants before the treatment process. If patients meet the criteria for major depressive disorder, additional screening is done, starting with the administration of the SCID-II to exclude patients with manifest substance abuse, acute psychotic symptoms and/or suicidal ideations, and to detect comorbidity. After treatment, the SCID-I and SCID-II are administered again to indicate changes in psychopathology presence.
2. The Clinical Diagnostic Interview (CDI), a semi-structured interview that assesses DSM-IV-TR Axis I and II symptoms narratively, is administered to indicate comorbidity and severity of symptoms from the patient's experience.
3. Personality styles or potential participants are identified by the rating of transcribed CDIs, using the list of criteria provided by Blatt and Ford. This list includes typical needs, concerns, relational attitudes, and coping mechanisms of both dependency and self-criticism, all rated on a 5-point Likert scale. Total scores for dependency and self-criticism range between 0 and 100. A team of postgraduate research assistants is trained until adequate inter-rater reliability with an expert rater is reached, will rate the patients on Inter-rater reliabilities observed with this procedure are adequately high (ranging between 0.85 and 0.95).
4. The personality styles identified by ratings, are validated by administration of the self-rating questionnaires the Personality Style Inventory (PSI) and the Depressive Experiences Questionnaire (DEQ). The PSI distinguishes between the dependent and the self-critical personality style. The DEQ distinguishes between the sociotropic and autonomous personality styles, which resemble the dependent and the self-critical personality style, respectively.

A number of materials such as the SCID, the CDI and the BDI-II-NL are based on the diagnostic typology described in DSM-IV-TR. As the DSM-IV-TR was recently replaced by DSM-V, but no (Dutch translations of) updated versions of the measures are available yet, in this study the current measures are still used. Nonetheless, we compared the DSM-IV and DSM-V thoroughly, to be able to anticipate changes in the SCID's items over the course of our study.

Completion date
31/12/2019

Eligibility

Key inclusion criteria
Current inclusion criteria as of 01/10/2015:
1. Diagnosis of current major depressive disorder according to Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV), as assessed in the Structured Clinical Interview for DSM Disorders (SCID-I).
2. Hamilton Depression Rating Scale (HDRS) total score >14
3. Aged 18-65
4. Outpatient
5. Sufficient knowledge of the Dutch language
6. Dominance of either dependent or self-critical personality characteristics (prototype matching procedure by Werbart and Forsström: At least a score of 3/5 for one of the patterns and a minimum of 2 points difference with the score on the other personality pattern)
7. Patients on antidepressant medication can still meet inclusion criteria and can participate in the study if they are on a stable dose for at least four weeks. All medication use will be registered in detail throughout the procedure.

Previous inclusion criteria:
1. Diagnosed with major depressive disorder, according to the description in DSM-V
2. Aged >18 years old

3. Living in the Ghent region
4. Outpatient
5. Dutch speaking

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
65 Years

Sex
All

Total final enrolment
100

Key exclusion criteria
Current exclusion criteria as of 01/10/2015:
1. Manifest psychotic symptoms or bipolar disorder
2. Acute suicidal risk
3. Current substance abuse /dependence (SCID)
4. Evidence of cognitive impairment that might prevent full participation in the treatments
5. Evidence of serious physical illness that strongly affects the depression or is causal for the depression
6. Other ongoing psychotherapeutic treatments

Previous exclusion criteria:
1. Acute psychotic episode
2. Acute suicidal tendency
3. Manifest substance abuse

Date of first enrolment
01/10/2015

Date of final enrolment
31/12/2016

Locations

Countries of recruitment
Belgium

Study participating centre
Ghent University
Henri Dunantlaan 2
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9000

Sponsor information

Organisation
Ghent University

ROR
https://ror.org/00cv9y106

Funder(s)

Funder type
University/education

Funder Name
Universiteit Gent

Alternative Name(s)
UGent, Ghent University

Funding Body Type
Private sector organisation

Funding Body Subtype
Universities (academic only)

Location
Belgium

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Professor Mattias Desmet (info.RCT@UGent.be or Mattias.Desmet@UGent.be).

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	qualitative results	01/01/2020	18/06/2019	Yes	No
Results article	Primary outcome	10/08/2023	14/08/2023	Yes	No
Protocol article	protocol	14/03/2017		Yes	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes