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What is the Association between Quality of Treatment for Depression and Patient Outcomes?

A Cohort Study of Adults Consulting in Primary Care

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Université de Montréal
Québec
• Institut national de santé publique
• Fonds de la recherche en santé
• Ministère de la Santé et des Services Sociaux
CHSRF FCRSS Canadian Health Services Research Foundation
Fondation canadienne de la recherche sur les services de santé

Background

- Major depression:
  - *One of the most prevalent mental disorder in the general population*
  - *Important source of disability*
  - *High risk of recurrence and chronic course in the absence of treatment*
- > 80 % of people consulting for a mental health problem, do so in primary health care services (especially with GPs)
- Importance of primary care

Ref: Fournier et al. 2007.

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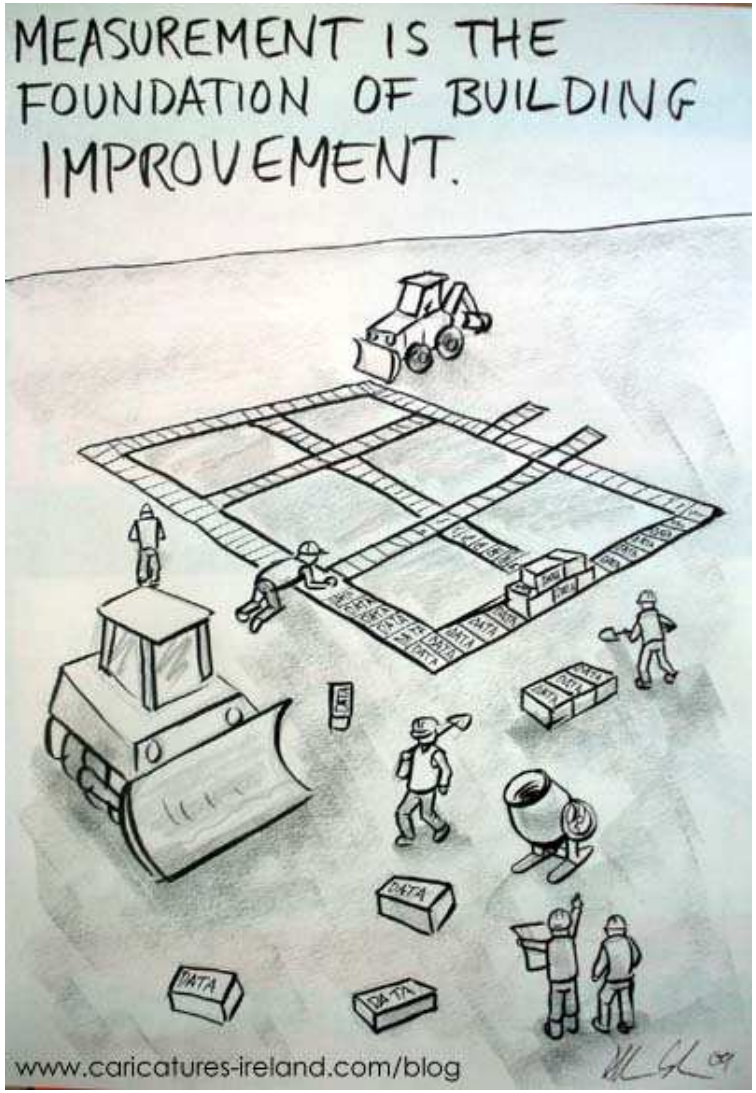
Background

Why measure quality?

- Quality improvement context
- *"We can only be sure to improve what we can actually measure."* Lord Darzi, High Quality Care for All, June 2008
- Reasons for measuring quality:
  - *Identify areas requiring improvement*
  - *Monitor changes and potential improvements in care*
  - *Highlight high quality care*



Background

Indicators of Quality

- Meaningful information for researchers, health care providers, policy makers, and health care planners
- Evaluating processes of care
  - *(Donabedian's classic definition of quality assessment)*
- Concept of « minimal quality of treatment »
- Based on clinical practice guidelines
  - *treatment orientations supported by evidence-based data and the consensus of experts*
  - *2 main treatment options (pharmacotherapy and psychotherapy)*
  - *increasingly used to define the norms when establishing target standards for treatment quality at a population level*

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Background

- Prevalence estimates of minimal quality of treatment :
  - *ranging from 14 % to 56%*
- Limits of measurement
  - *Choice of target population*
  - *Methodology*
  - *Definition of treatment concordance*
- Only few indicators were validated
  - *Study of the association of quality with improvement of symptoms*

Ref: Duhoux et al. 2011 (submitted)

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Goals

1. Using indicators developed from clinical practice guidelines, establish the proportion of primary care patients meeting DSM-IV criteria for major depressive disorder who receive adequate treatment

2. Examine the association between receiving adequate treatment and improvements in depressive symptoms at 6- and 12-months

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METHODOLOGY

Study Design

The Research Program (2006-2010) :

*The **Dialogue Project** examines the organizational and contextual factors that influence the quality of primary health care services for people with common mental health problems*

Component 1: Contextual Study

15 local health and social services networks in Quebec

Component 2: Organizational Survey

76 primary care medical services

Component 3: Client Survey

915 individuals suffering from depression

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General Design of the Project : 2006-2010

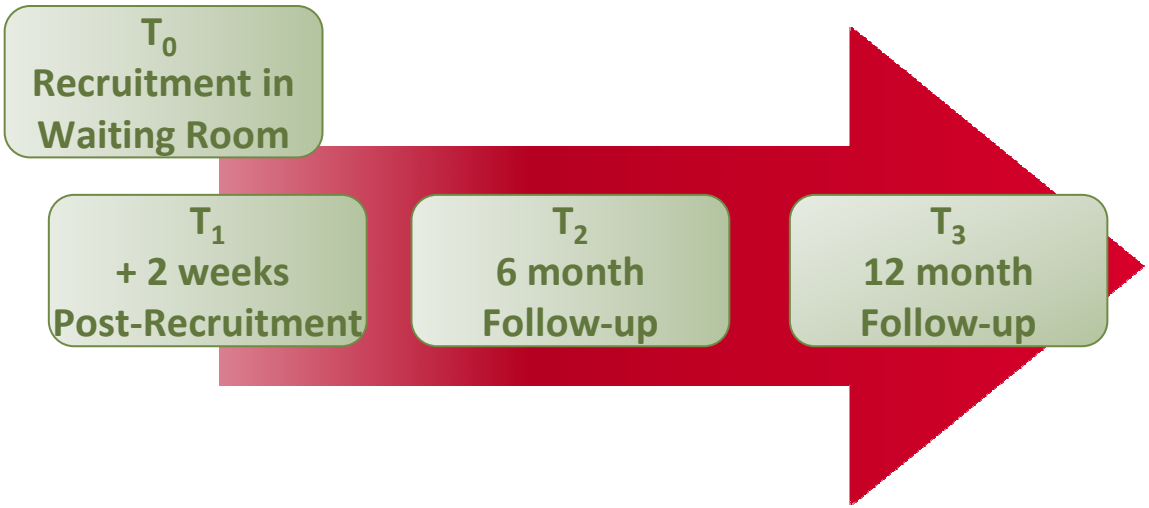
➔ **Contextual Survey**

2006 Tour → 2007-2008 Tour → 2009 Tour

➔ **Organizational Survey**

Survey in Medical Clinics

➔ **Client Survey**



Study Design - Client Survey

Objective

Studying the health care experience of clients with common mental disorders in light of different primary care organizational models

Design

Cohort study

One year follow-up (including 2 repeated measures)

Participants

Adults with common mental disorders

(DSM-IV anxiety and depressive disorders)

Users of primary care services recruited in one of the participating clinics

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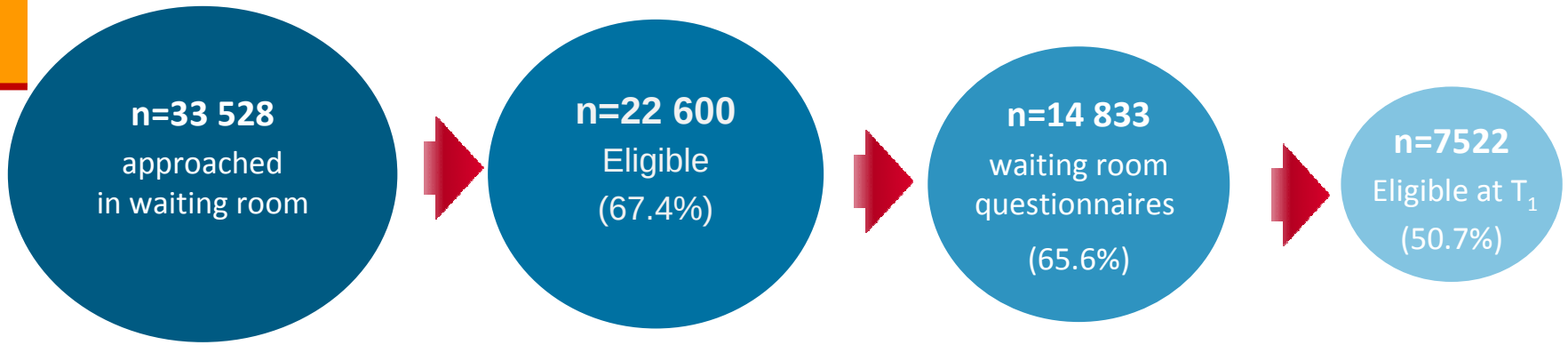
Study Design - Client Survey

Recruitment waiting rooms of participating clinics

T_0: Self-administered questionnaire in waiting room

Eligibility criteria:



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Study Design - Client Survey

T_1 Selection criteria

High anxiety and/or depressive symptomatology

Anxiety and/or depression medication

Anxiety and/or depressive disorders diagnosed by a physician

Consultation for mental health problems (general practitioner, psychiatrist, or psychologist)

+

Usual clinical portion of the ***Dialogue Project*** sample

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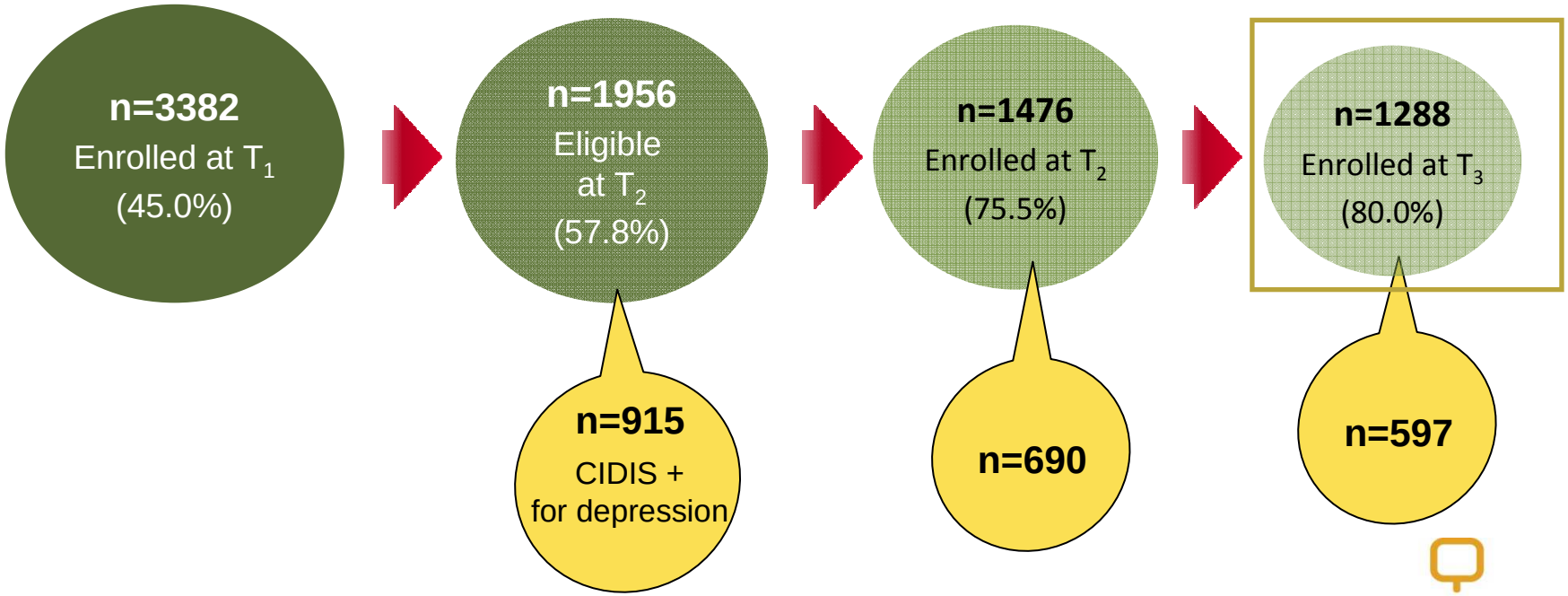
Study Design - Client Survey

Telephone/Web Follow up

Eligibility criteria for cohort study: CIDIS +



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Study Design - Client Survey

Constructs Assessed at each Measurement Occasion

T_0	T_1	T_2	T_3
•HADS	•CIDIS	•Experience of care	•Experience of care
•WHODAS	•Experience of care	•Mental health services use	•Mental health services use
•Socio-demo data	•Mental health services use	•Medication	•Medication
	•Medication	•HADS	•HADS
	•Socio-demo data	•WHODAS	•WHODAS

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RESULTS

Results

Description of Study Subsample

(n=915 Respondents meeting DSM-IV Criteria for Depression)

Sociodemographic Characteristics	
Age (Mean [SD])	44.2 (13.9)
Sex (Proportion Female)	75 %
Education Level	
High School or Less	45 %
College	29 %
University	26 %
Perception of Economic Situation as Poor or Very Poor	30 %
Other	
Has Family Physician	83 %
Has Supplementary Insurance Coverage	56 %

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Results

Description of Study Subsample

(n=915 Respondents meeting DSM-IV Criteria for Depression)

Clinical Characteristics	
At least one Comorbid Anxiety Disorder (PD, Ago, SAD, GAD)	55 %
Depression Symptoms in Previous 6 months	75 %
Appearance of First Symptoms (>5 years)	70 %
Perceived Mental Health as Poor or Moderate	42 %
Comorbid Chronic Illnesses	
0	22 %
1	23 %
2	20 %
3 or more	35 %

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Results

Utilization of Services and Detection in the pa

(n=915 Respondents meeting DSM-IV Criteria for Depression)

1. Use of services for mental health reason 86%
2. Detection of Depression 68%
3. Watchful waiting (n=134) 40%
   At least 3 medical consultations for mental health reasons without treatment

n=134 respondents who used services for mental health reasons in the previous year but didn't receive an antidepressant prescription or any form of psychotherapy

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Results

Quality of psychotherapy in the last 12 months

(n=915 Respondents meeting DSM-IV Criteria for Depression)

Any form of psychotherapy or counselling (n=446/789) 57 %

→ At least one recommended psychotherapy (n=370/446) 83 %

CBT or IT

→ Complete course of psychotherapy (n=272/446) 61 %

≥ 12 consultations

→ Adequate psychotherapy (n=229/446) 49 %

At least one recommended psychotherapy

+ complete course of psychotherapy

n=789 respondents who used services for mental health reasons in the past year

n=446 respondents who used services for mental health reasons in the past year and received any form of psychotherapy

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Results

Quality of pharmacotherapy in the past 12 months
(n=915 Respondents meeting DSM-IV Criteria for Depression)

Antidepressant prescription in the past year (544/915)	60 %
→ Adequate follow-up of prescription (n=424/544)	78 %
≥ 3 consultations with prescribing physician	
Adequate length of treatment (n=53/89)	59 %
≥ 180 days	
→ Adequate dosage of antidepressant medication (n=408/458)	89 %

n=544 respondents who received an antidepressant prescription in the previous year
n=89 respondents who received an antidepressant prescription in the previous year and stopped the medication
n= 458 respondents who received an antidepressant prescription in the past year and were still on medication at the time of interview

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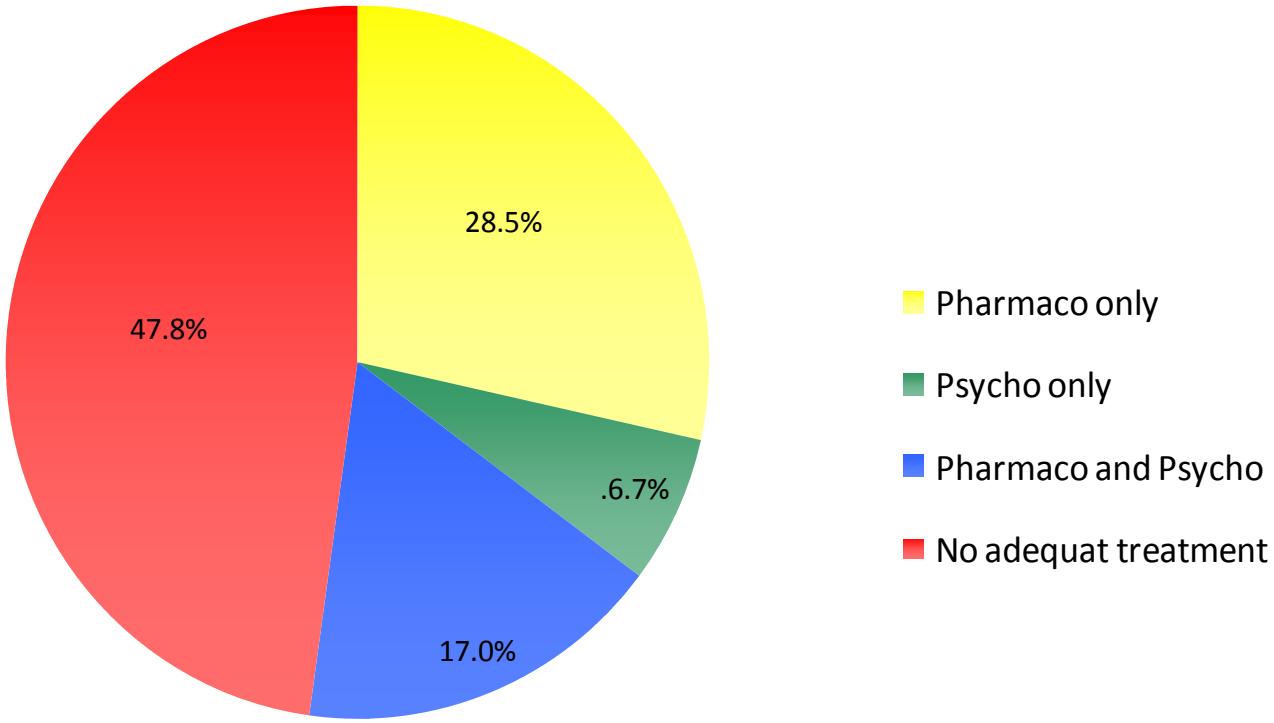
Results

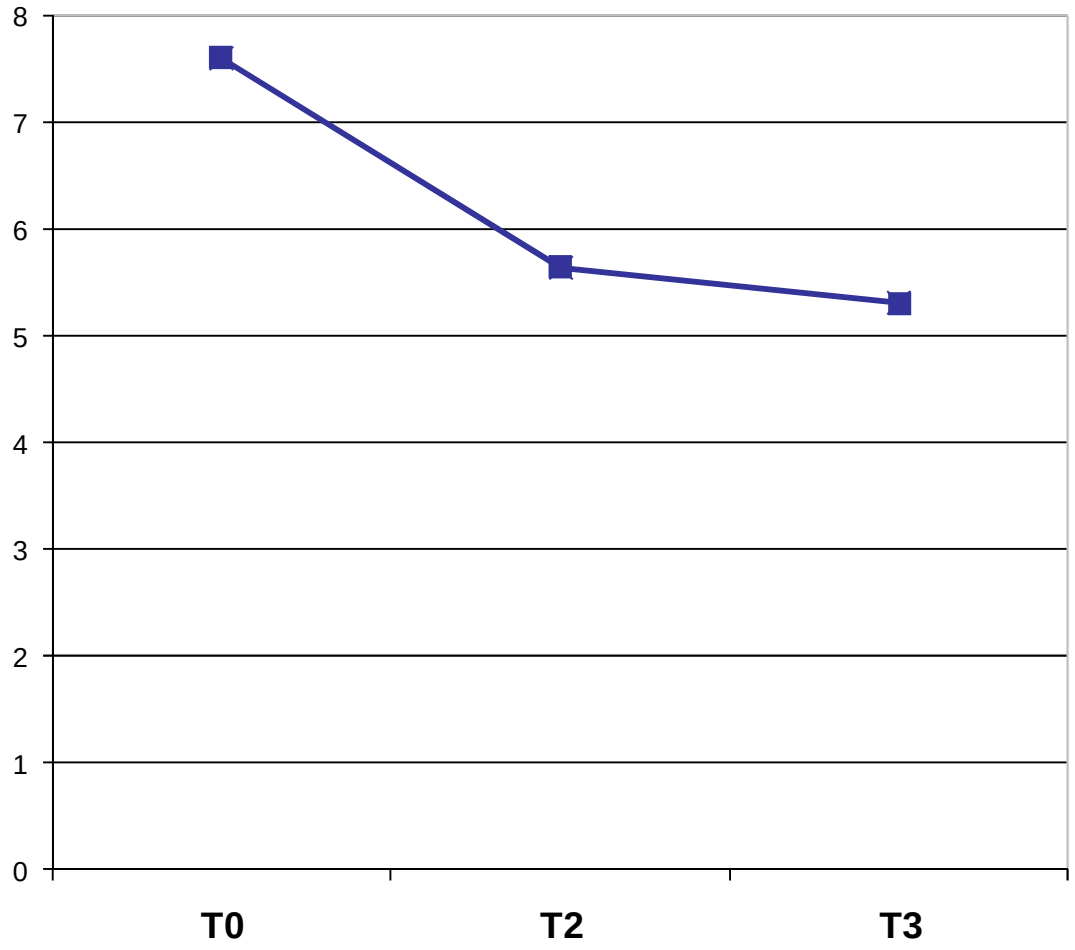
Minimally adequate treatment (%)



(n=915)
Adequate pharmacotherapy =
ATD prescription + 3 or more medical consultation
Adequate psychotherapy =
At least one recommended psychotherapy +
complete course of psychotherapy

Results

Plotting Findings from Multilevel Analysis Model: HADS (depression)



n=915

ICC:
Level 1: 51.4%
Level 2: 46.8%
Level 3: 1.8%

$p<0.05$ for coefficients at T_0, T_2 and T_3.
$p<0.05$ for contrast between T_2 and T_3.

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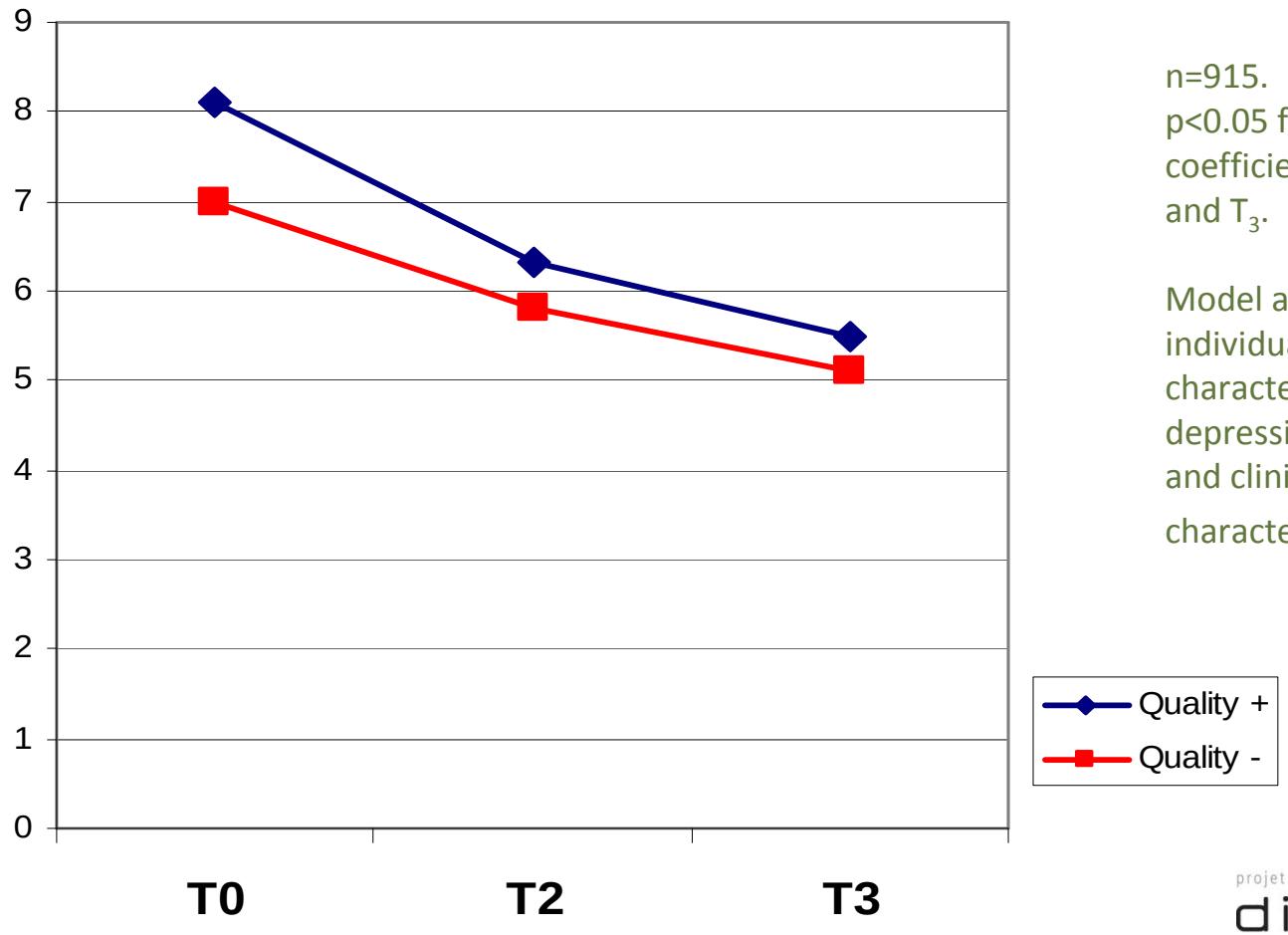
Results

Plotting Findings from Multilevel Analysis Model: Treatment Quality and HADS (depression)



n=915.
$p<0.05$ for quality coefficients at T_0, T_2 and T_3.

Model adjusted for individual characteristics, depression severity, and clinic characteristics.

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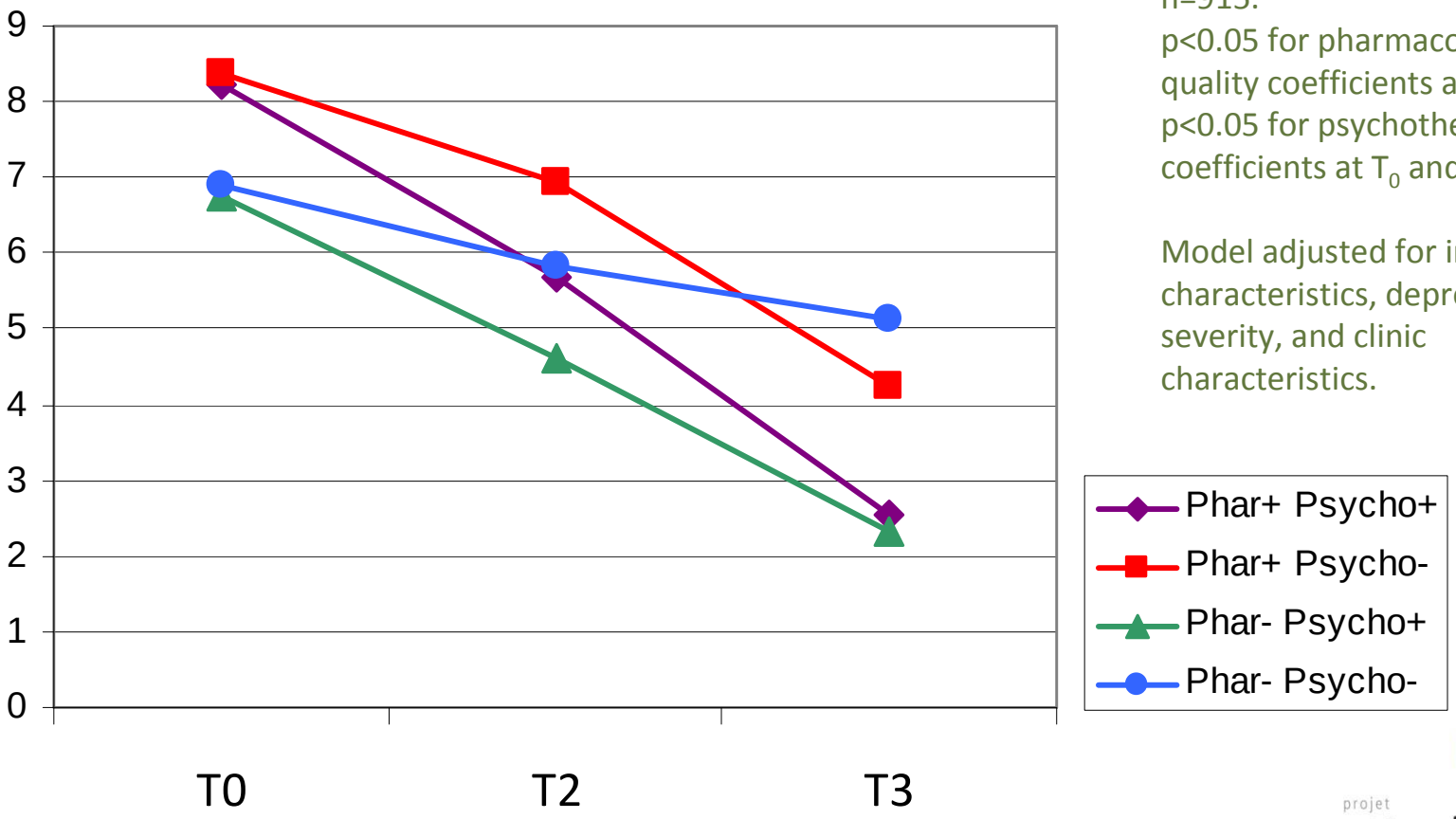
Results

Plotting Findings from Multilevel Analysis Model: Treatment Quality and HADS (depression)



n=915.
$p<0.05$ for pharmacotherapy quality coefficients at T_0 and T_3.
$p<0.05$ for psychotherapy quality coefficients at T_0 and T_2

Model adjusted for individual characteristics, depression severity, and clinic characteristics.

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DISCUSSION

Discussion

- Adherence to guidelines was high (>75 %) for one third of the quality indicators that were measured but was low (<60%) for nearly half of the indicators, pointing to specific needs for quality improvement.
- The proportion of patients who received at least one adequate treatment among those who received a consultation for mental health reason is in the higher range of earlier findings (52.2%).
- However a large proportion of persons suffering from depression don’t receive minimally adequate treatment

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Discussion

- Quality, measured with our indicators, is associated with greater improvement of depression symptoms
- According to our indicators, both pharmacotherapy and psychotherapy are associated with greater improvement of depression symptoms.
- Our results suggest that combined therapy (pharmacotherapy and psychotherapy) may be recommended

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Discussion - Study Limitations

- Possible overestimation or underestimation of indicators
- Generalizability of results
- Self-reported data are always subject to memory bias
- Limits of clinical guidelines for quality measurement
- Meeting minimal standards of treatment adequacy should not be interpreted as a direct reflection of the clinical quality of pharmacological or psychological treatments for depressive disorders.

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Thank you!