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# Outcome in Schizophrenia: How Good Is "Good Outcome" Schizophrenia in Long-term in Developing Countries

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# Outcome in Schizophrenia

How Good is 'Good Outcome' Schizophrenia  
in Long-term in Developing countries.

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# Declaration

- Declaration of Conflict of Interest
  - Janssen Group
  - Eli Lilly
  - Astra Zeneca
  - Nicholas Piramal-Rosch
  - Sun Pharma- India
  - Prempharma , Canada
- in Capacity of
  - Consultant
  - Advisor
  - Drug trial coordinator
  - Research Investigator
  - Reviewer
  - Speaker
  - Educational Groups





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### DGDispatch



## Majority of Patients With Schizophrenia Remain Marginalised Even After Recovery: Presented at CPA

By Thomas S. May

VANCOUVER -- September 9, 2008 -- A considerable proportion of patients with schizophrenia remain marginalised, even after they have been deemed to have recovered clinically, according to a study of patients with schizophrenia living in Mumbai, India, presented here at the 58th Annual Meeting of the Canadian Psychiatric Association (CPA).

It is generally believed that the long-term outcome of schizophrenia is more favourable in developing countries compared with industrialised societies.

"The use of the term *recovered* in outcome studies of schizophrenia has, for a long time, been problematic, because of the many different definitions in use," said lead researcher Amresh Srivastava, MD, Department of Psychiatry, University of Western Ontario, London, Ontario.

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# Introduction:

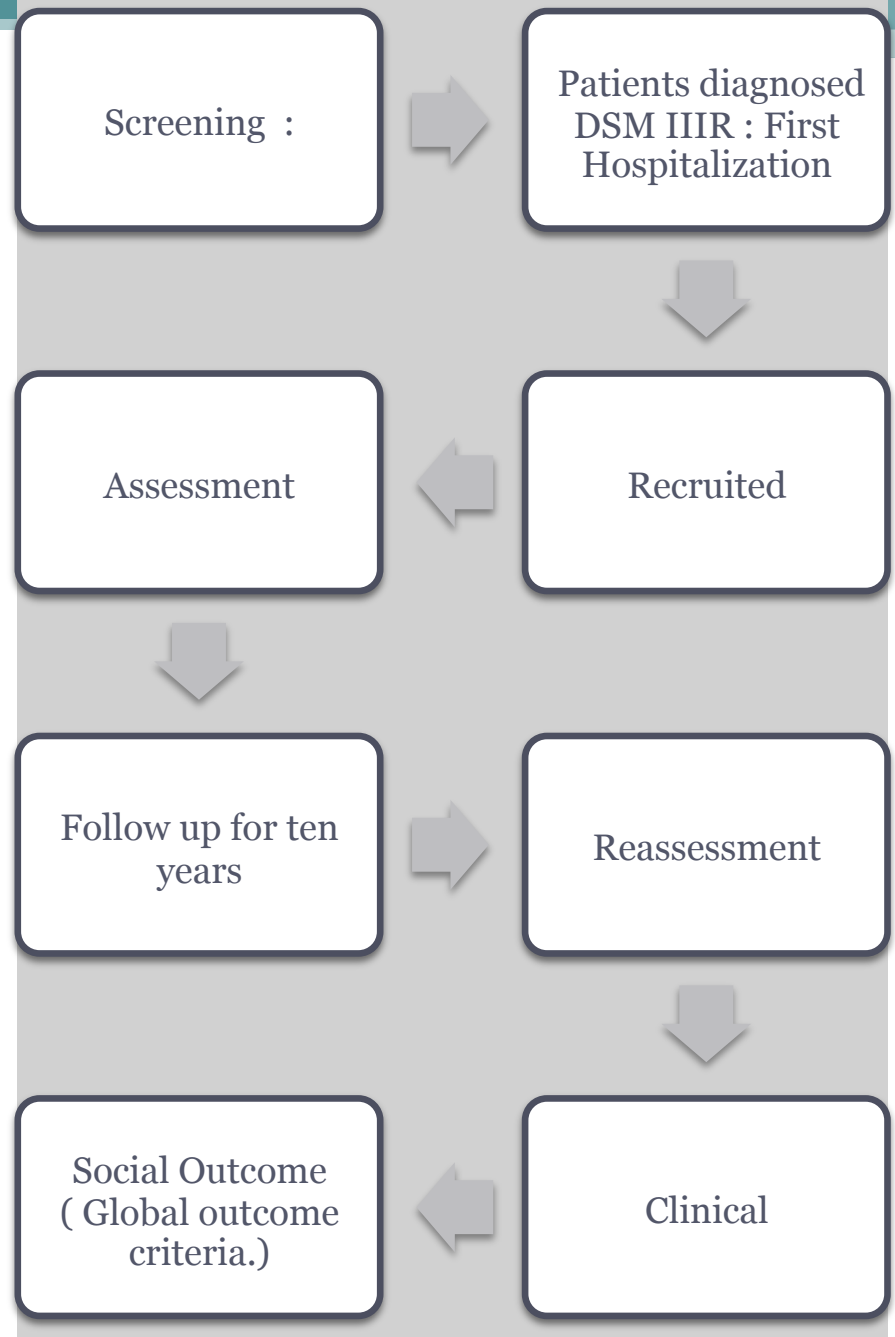
- The illness of schizophrenia has always been a matter of concern for its nature and extent of outcome particularly for its regional and cultural differences.
- The concept of outcome has been evolving and this study examines the scenario of good outcome in developing countries.
- Methods Re-examination of recovered patients in ten years long term, naturalistic, prospective study using Meltzer et al's 13 outcome criteria & on a new outcome scale

# Methods

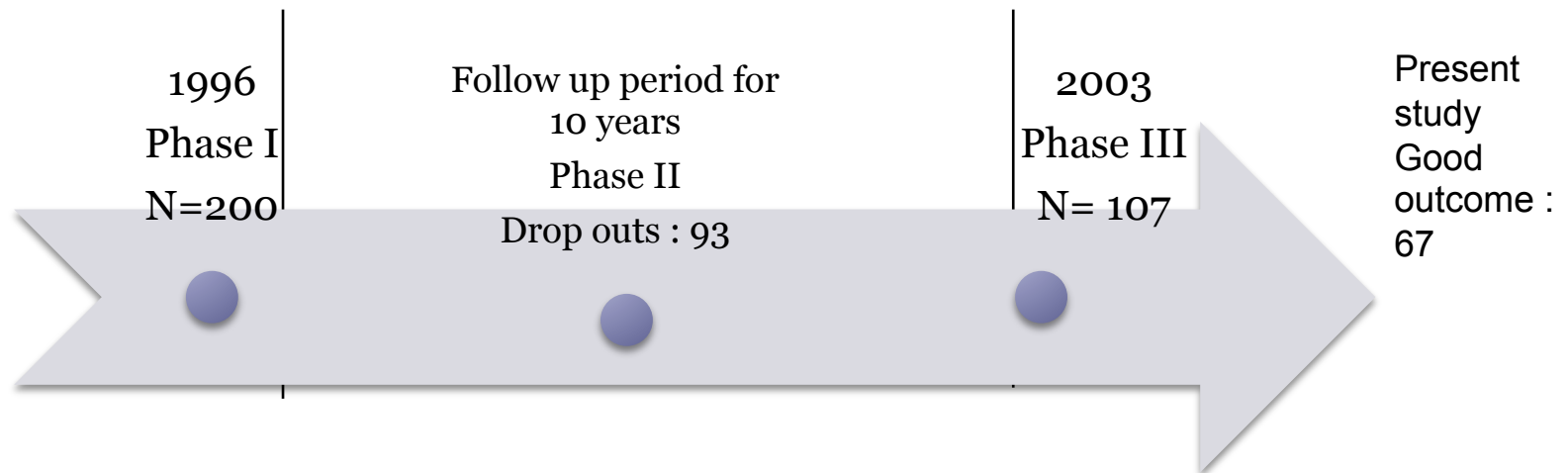
In a Longitudinal , Naturalistic, cohort study, patients with completed 10 years treatment were assessed on clinical and social parameter.

These patients were re-assessed for the status and quality of recovery using Global outcome scale on 7 outcome criteria

Results were analyzed.



# Methods



- Study parameters:**
- Demography
  - Clinical parameters
  - Global Outcome criteria
  - PANSS
  - CGIS

## Multiple outcome criteria in schizophrenia

Various parameter quantified based on clinical outcome and using popular scales for measurement

### Thirteen criteria

- 1. Psychopathology (positive symptoms, negative symptoms and disorganization)
- 2. Cognitive function (attention, executive function, working memory, recall memory, semantic memory, storage memory)
- 3. Interpersonal social function
- 4. Work–school function
- 5. Extra pyramidal function (parkinsonism, akathisia, tardive dyskinesia)

6. Independent living

7. Aggression

8. Quality of life

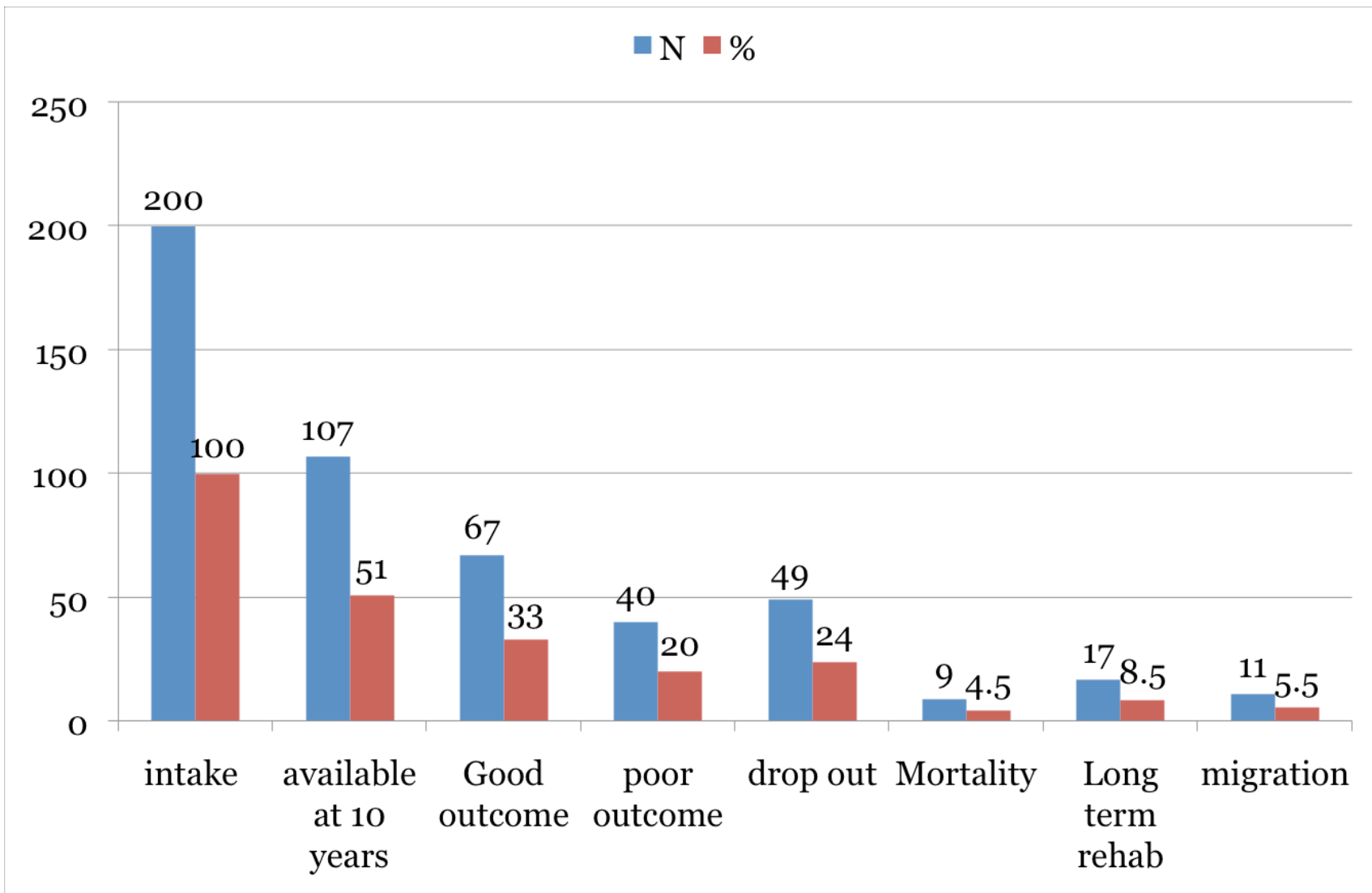
9. Compliance

10. Hospitalization

11. Family burden

12. Social burden

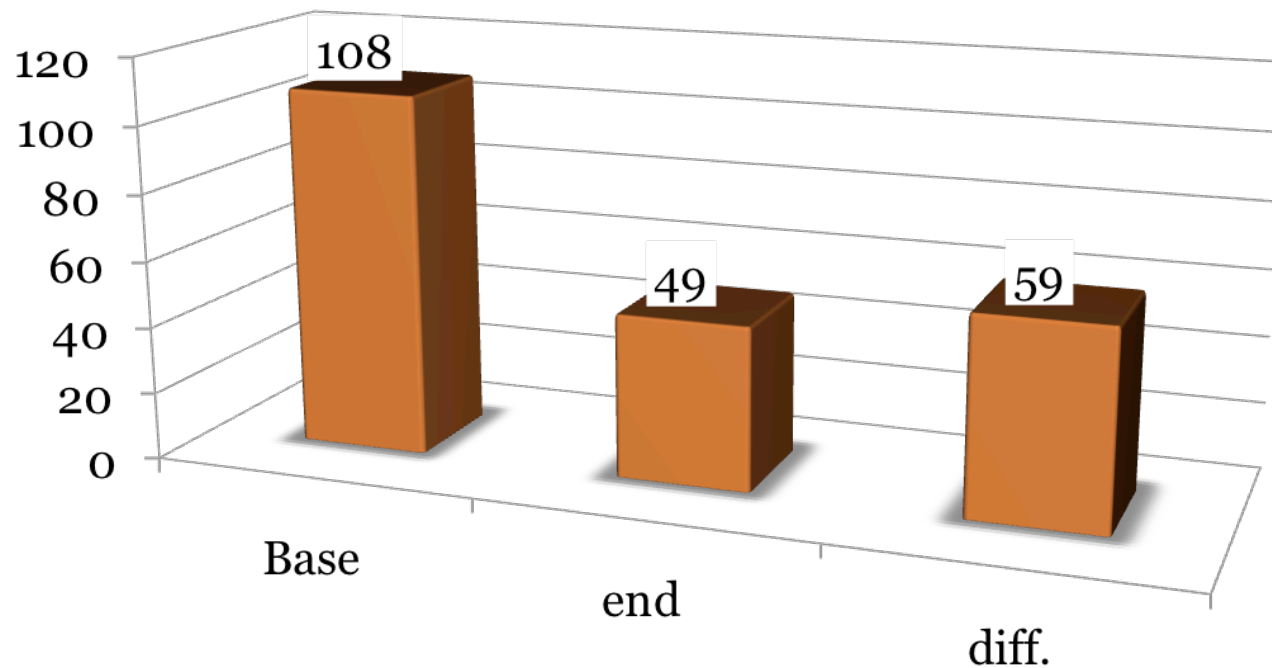
13. Suicidality



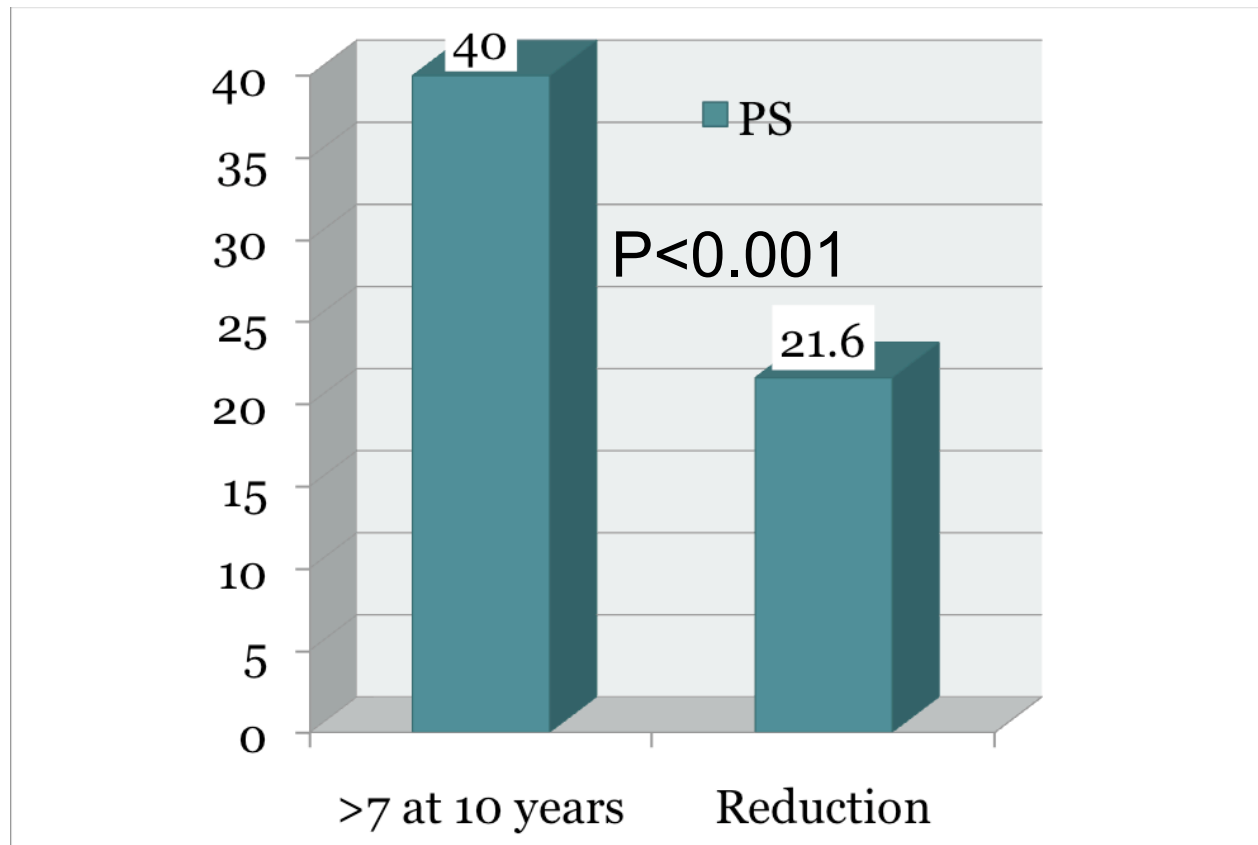
# Psychopathology: Total

**PANSS ,  $P < 0.001$**

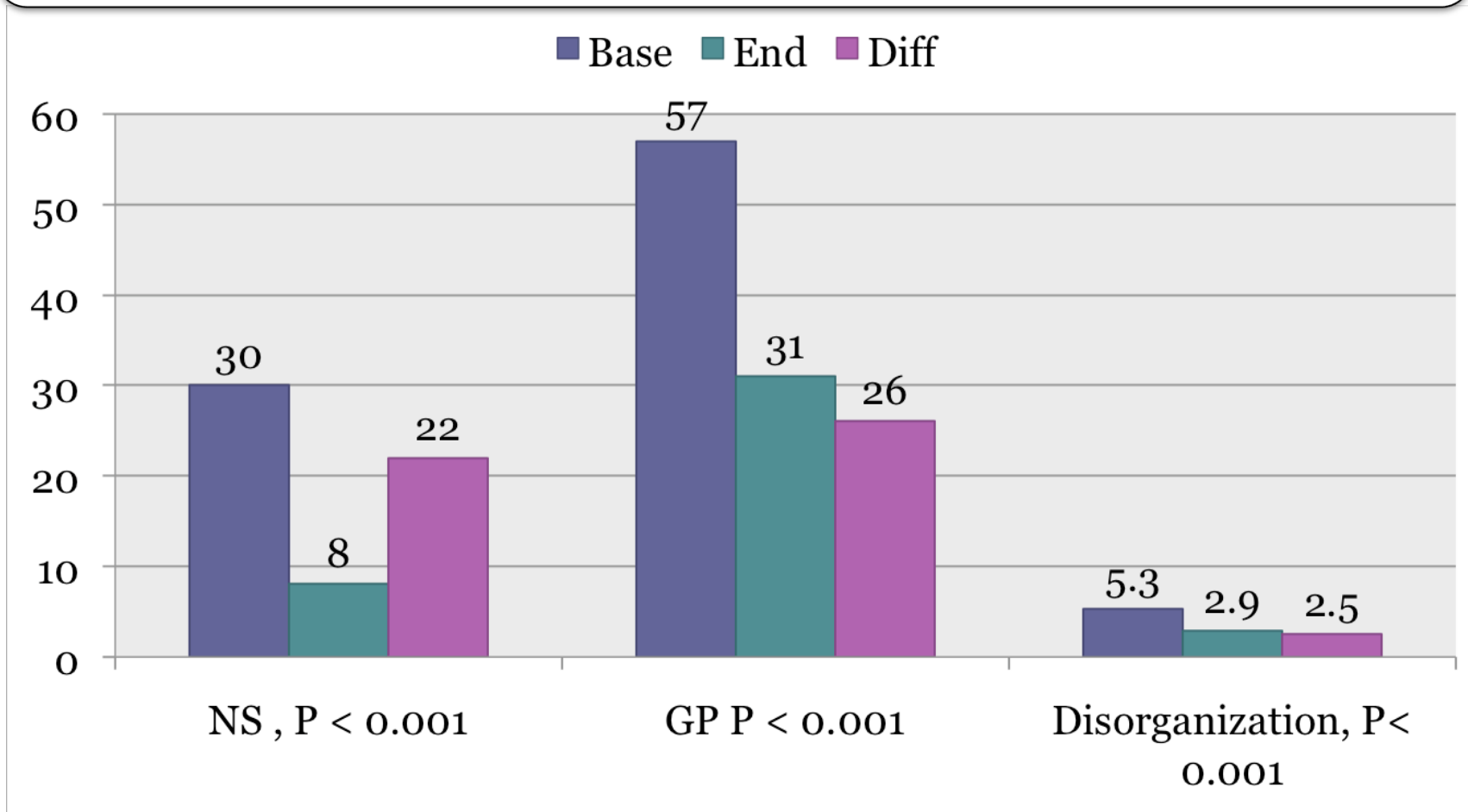
■ PANSS ,  $P < 0.001$



# Positive Symptoms

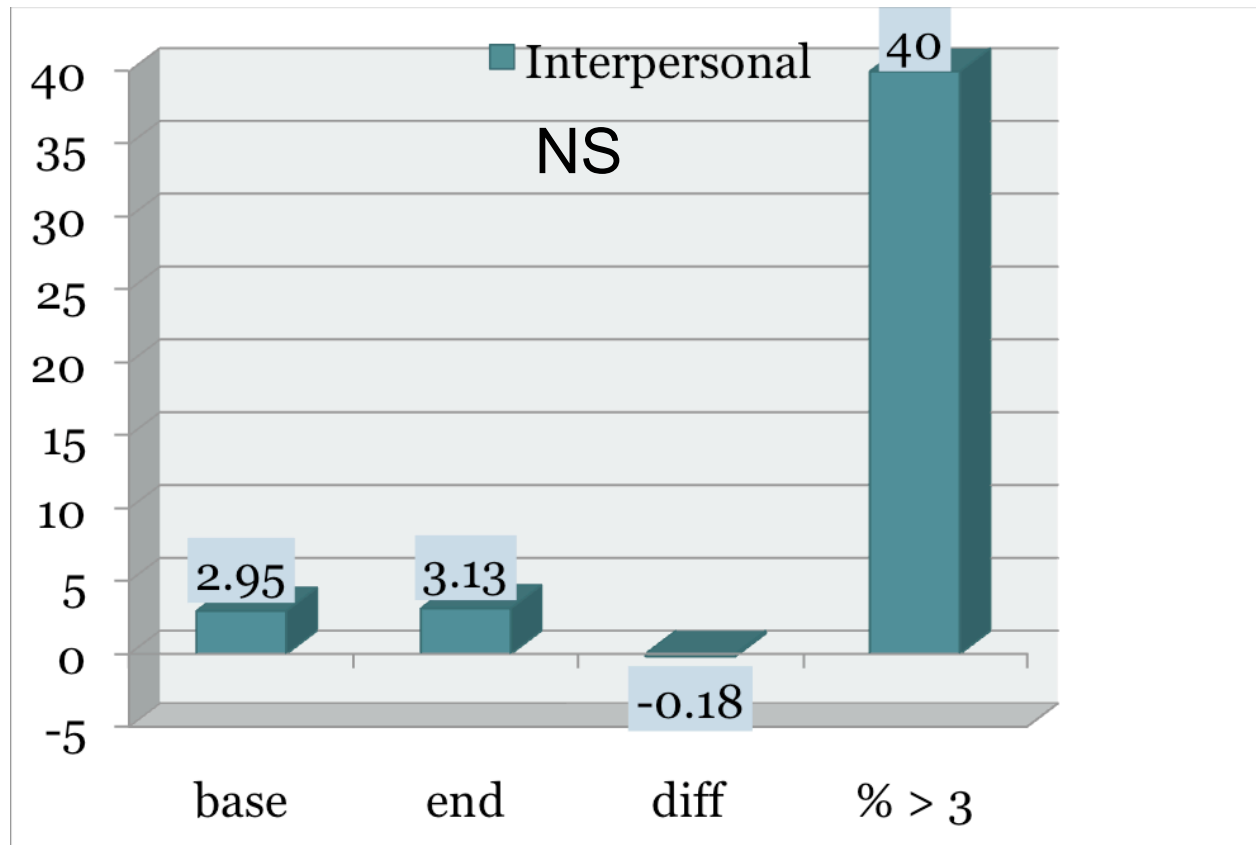


The residual features and persisting symptoms include positive symptoms, negative symptoms, suicidality, side effects like EPS,

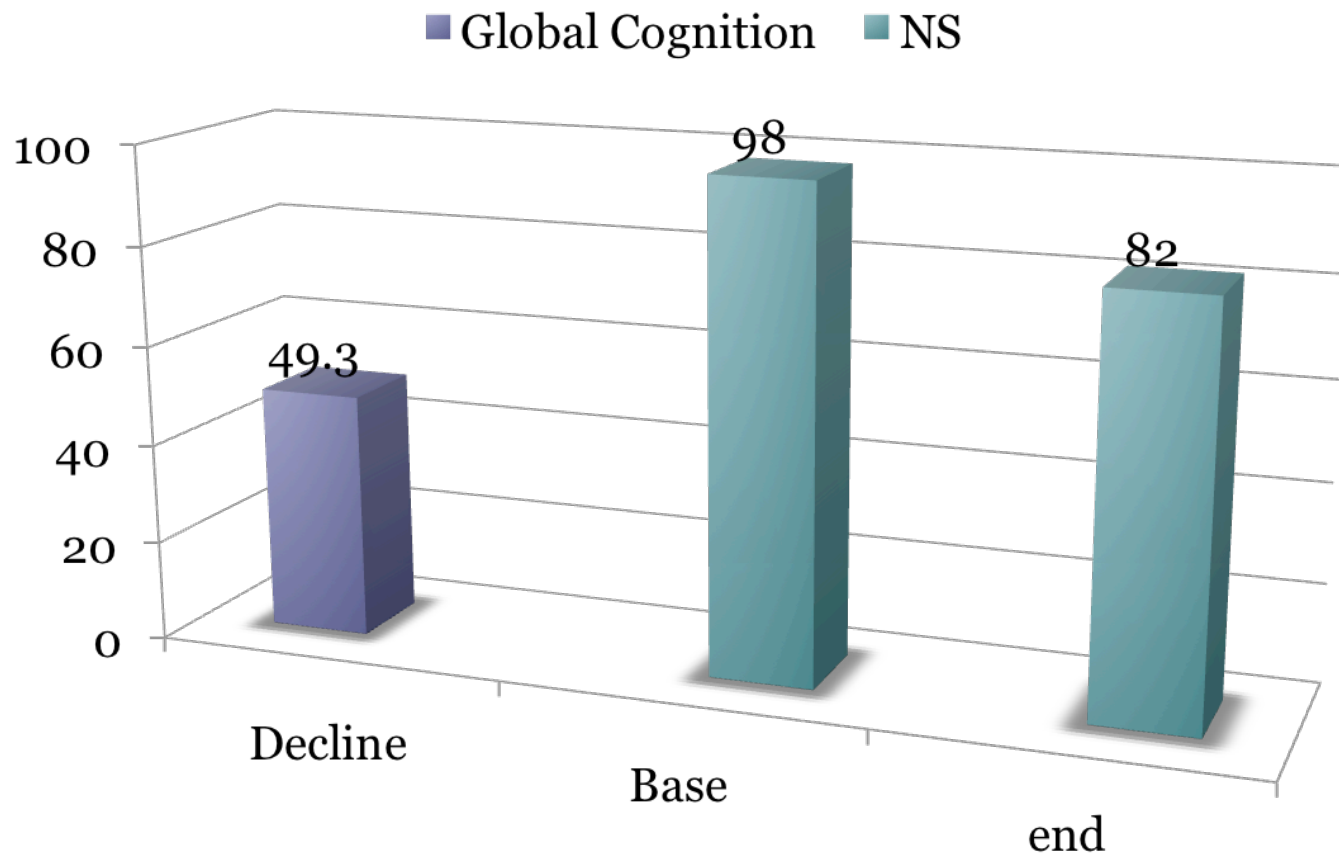




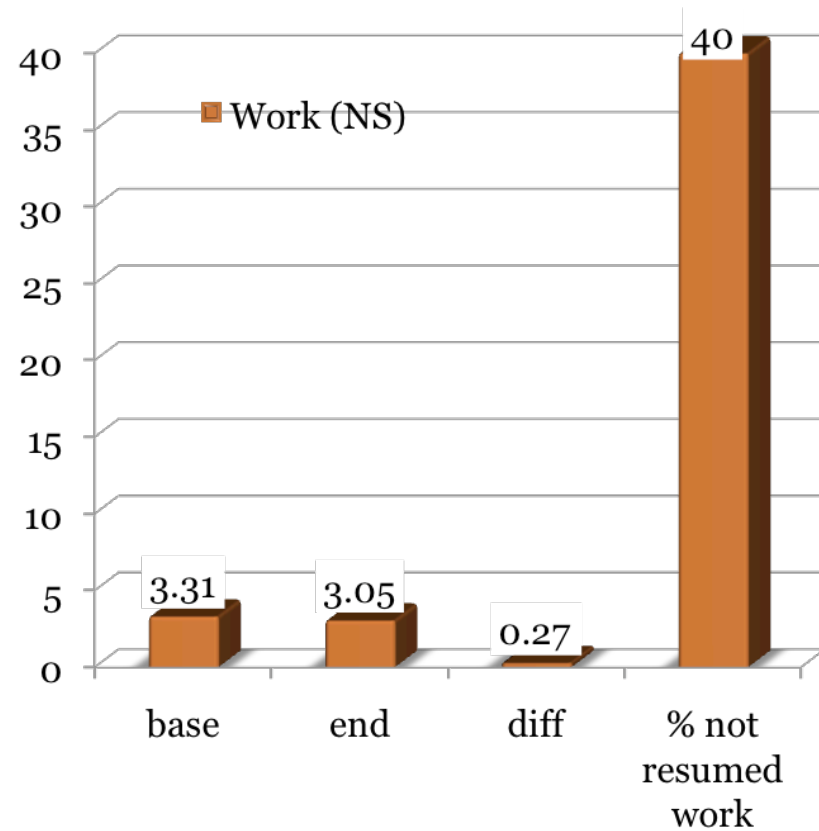
# Interpersonal Social Functioning



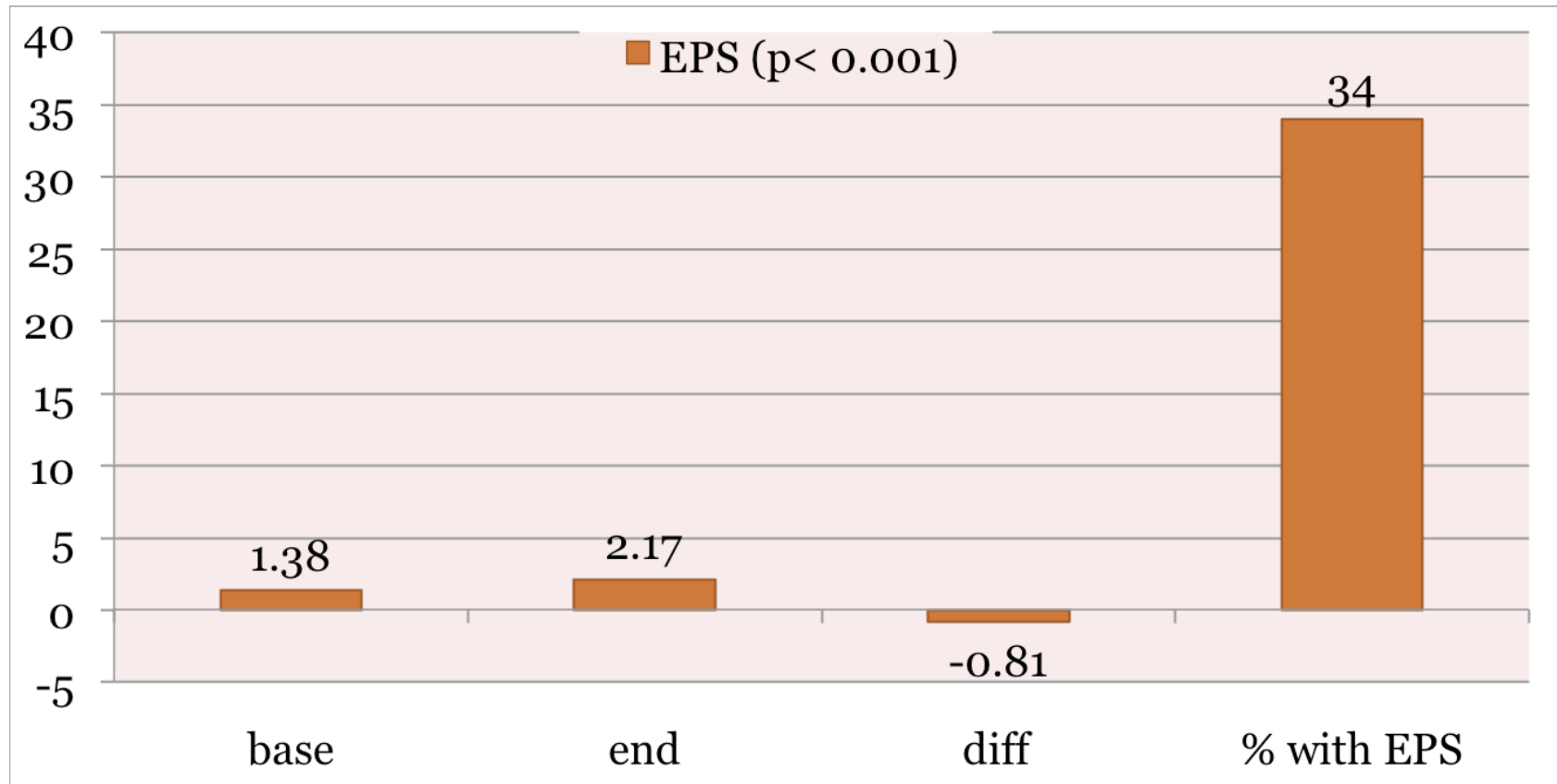
# Cognition: Global



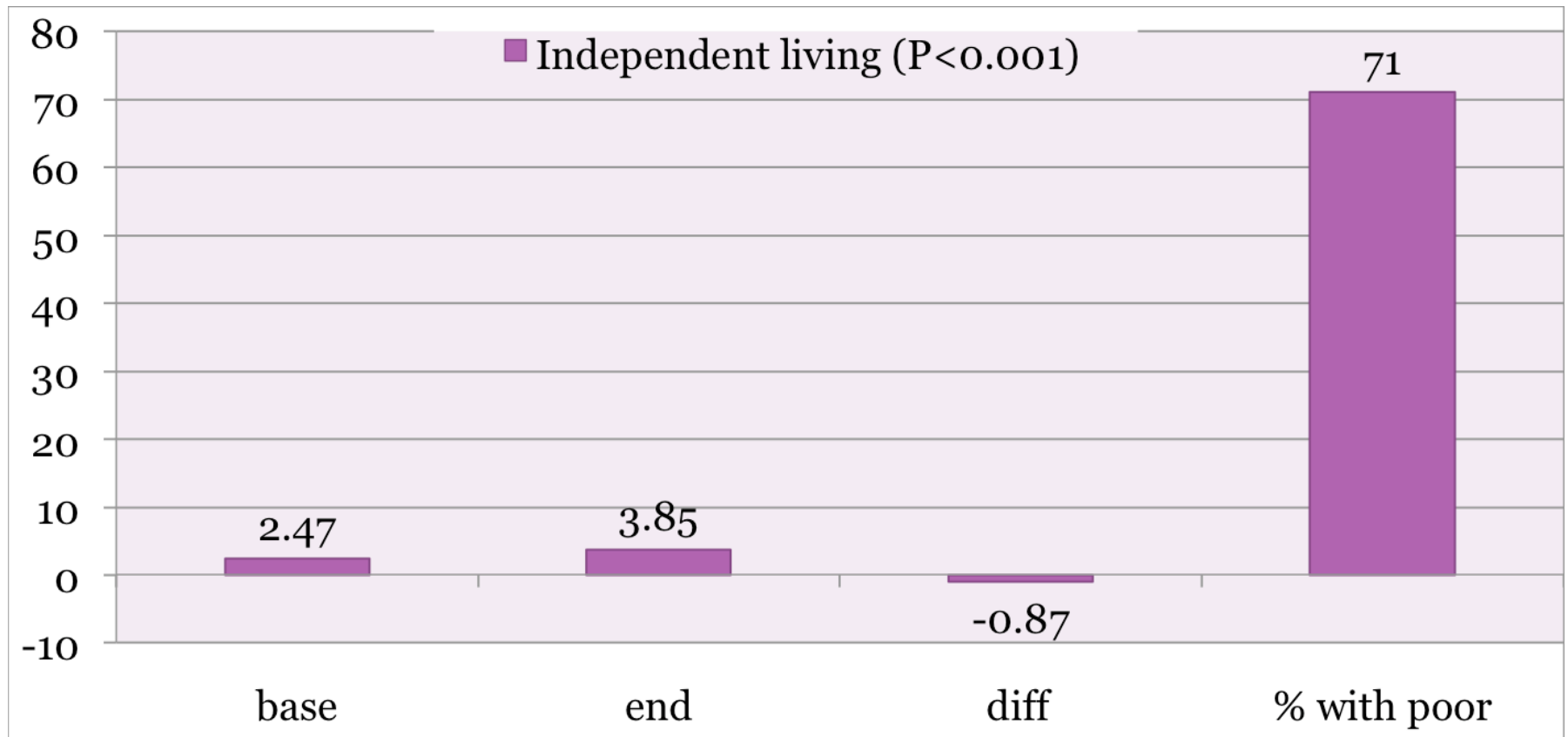
# Work/ employment



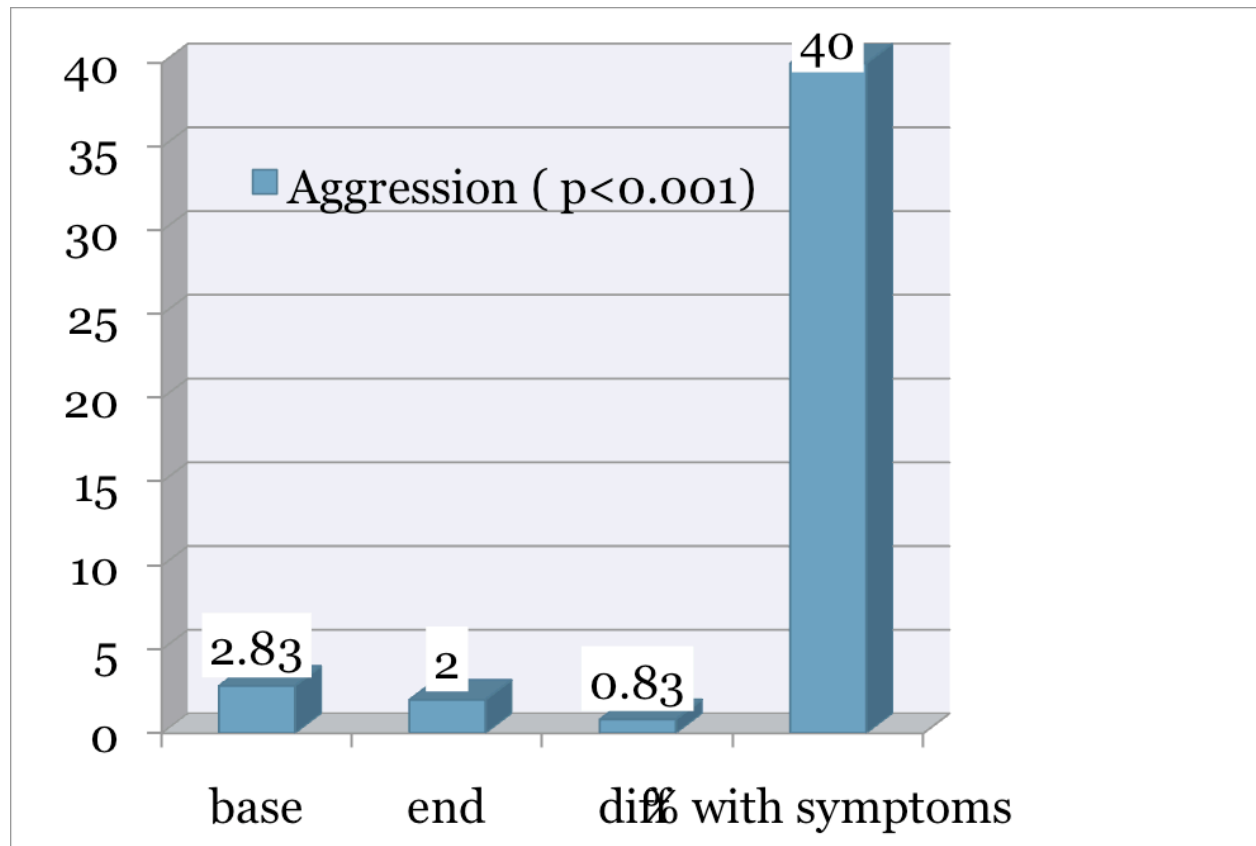
# EPS



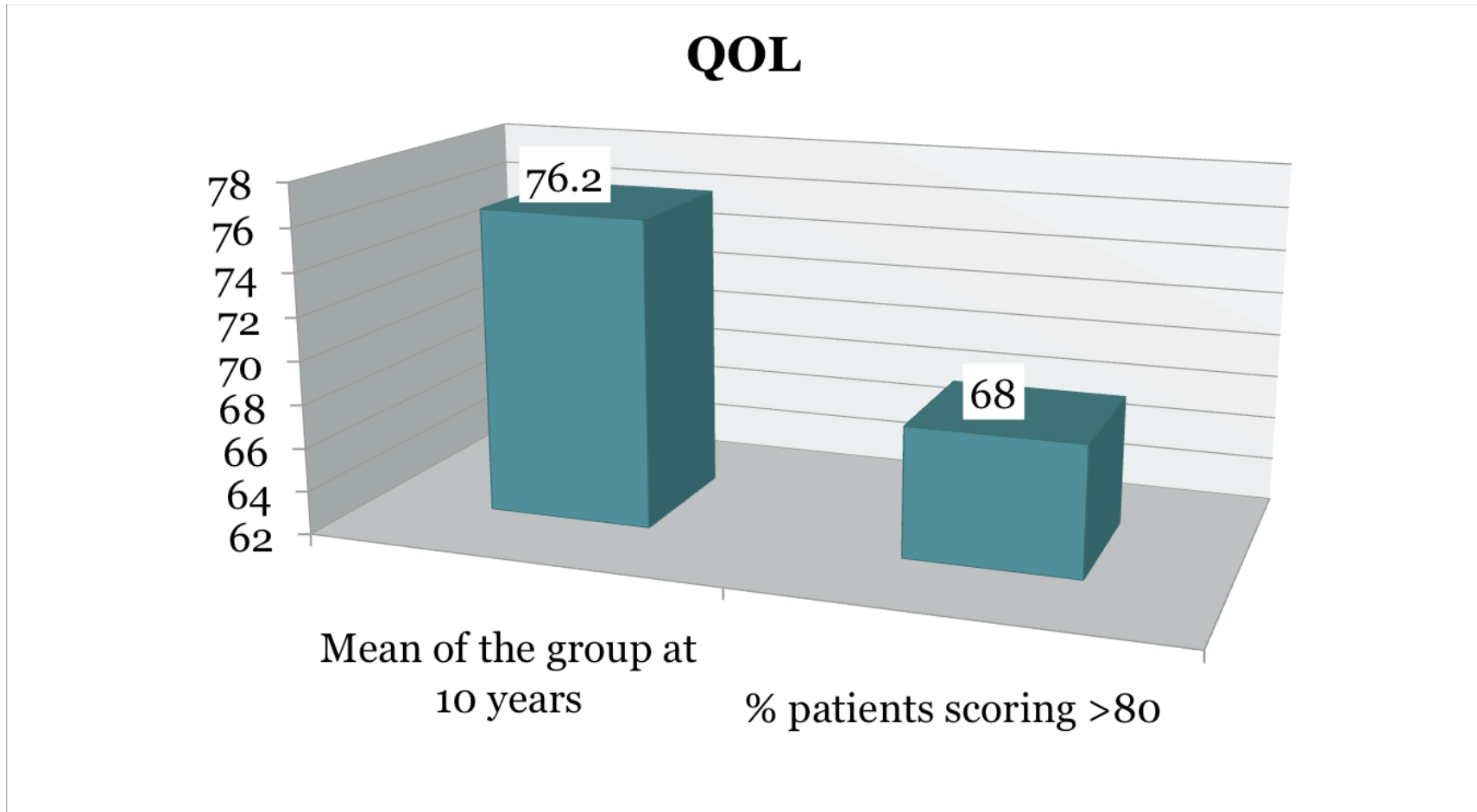
# Independent Living



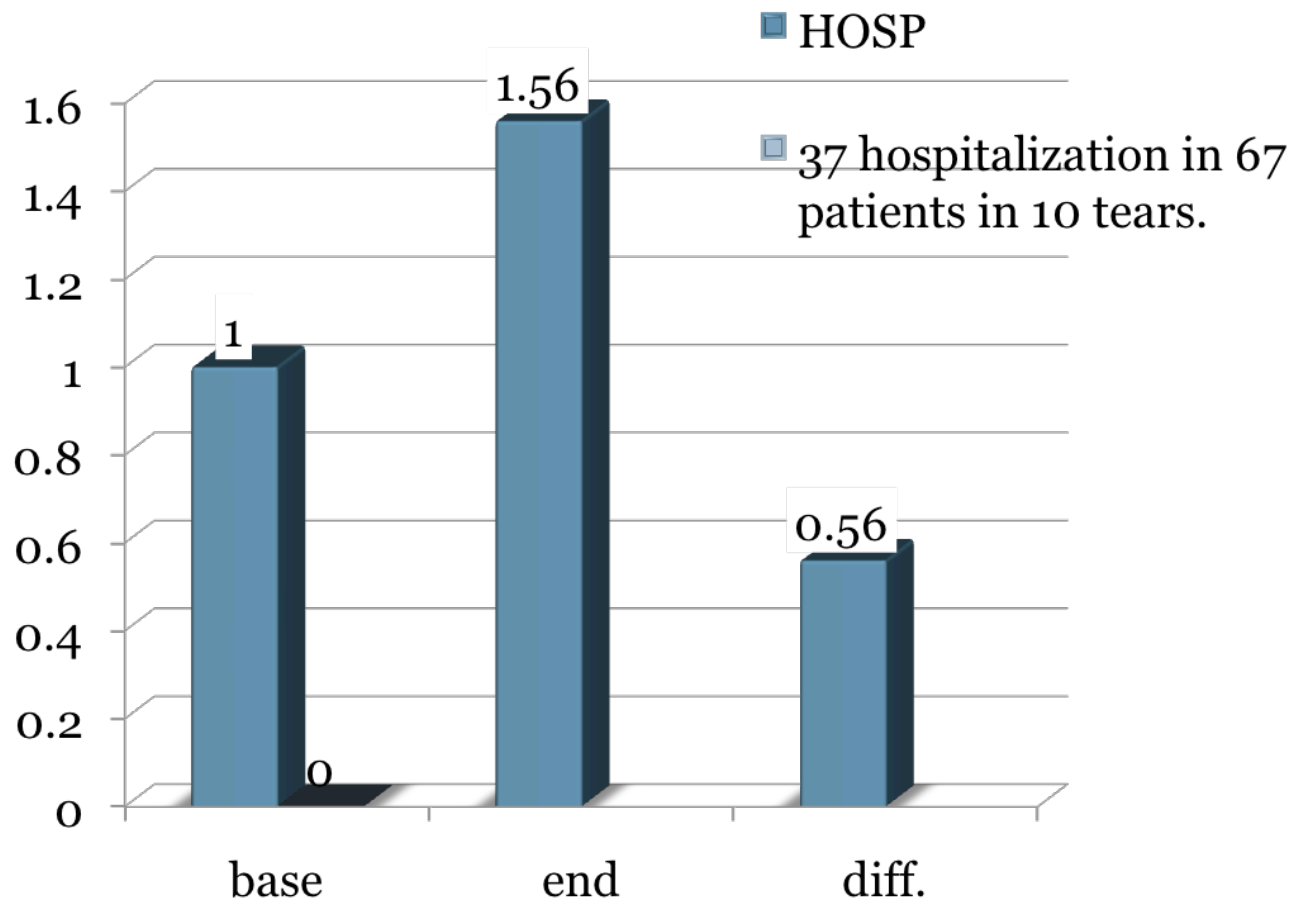
# Aggression



# Quality of Life

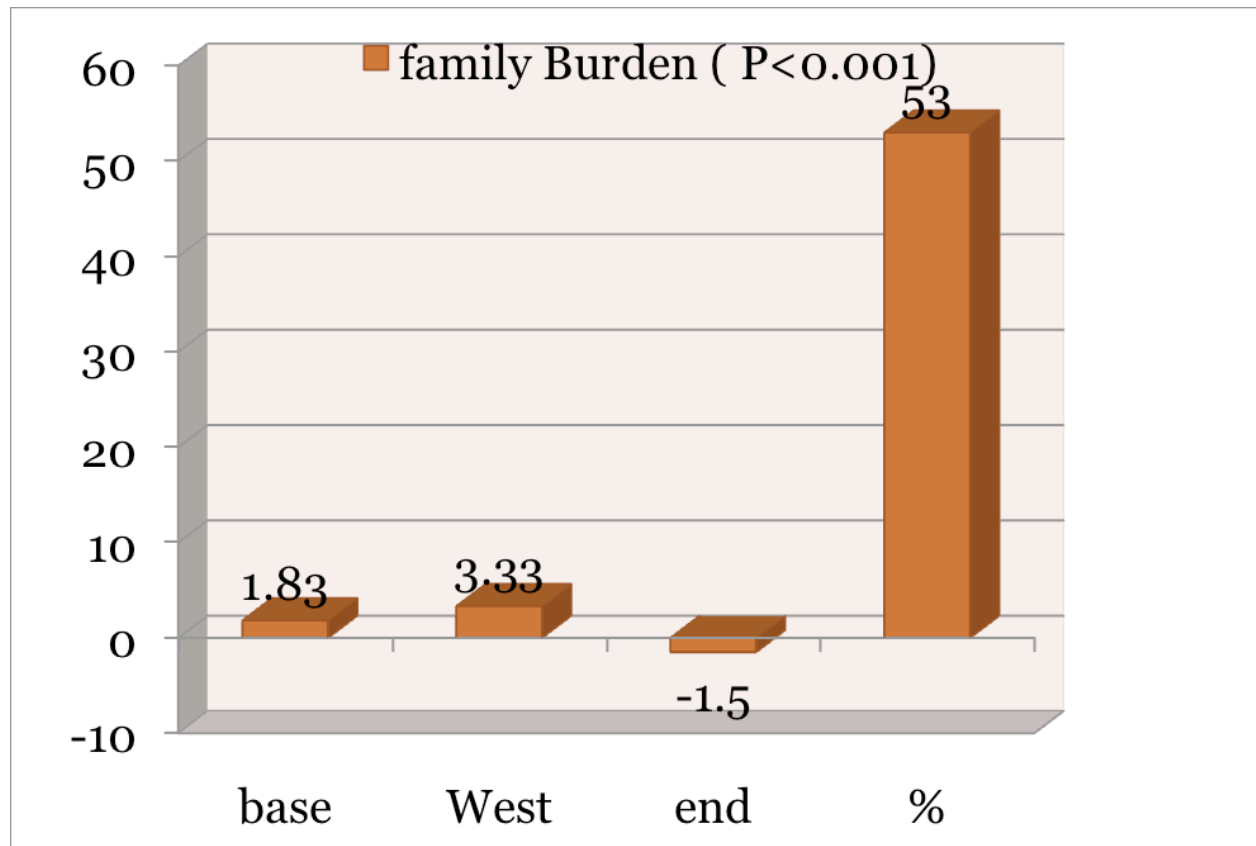


# Hospitalization

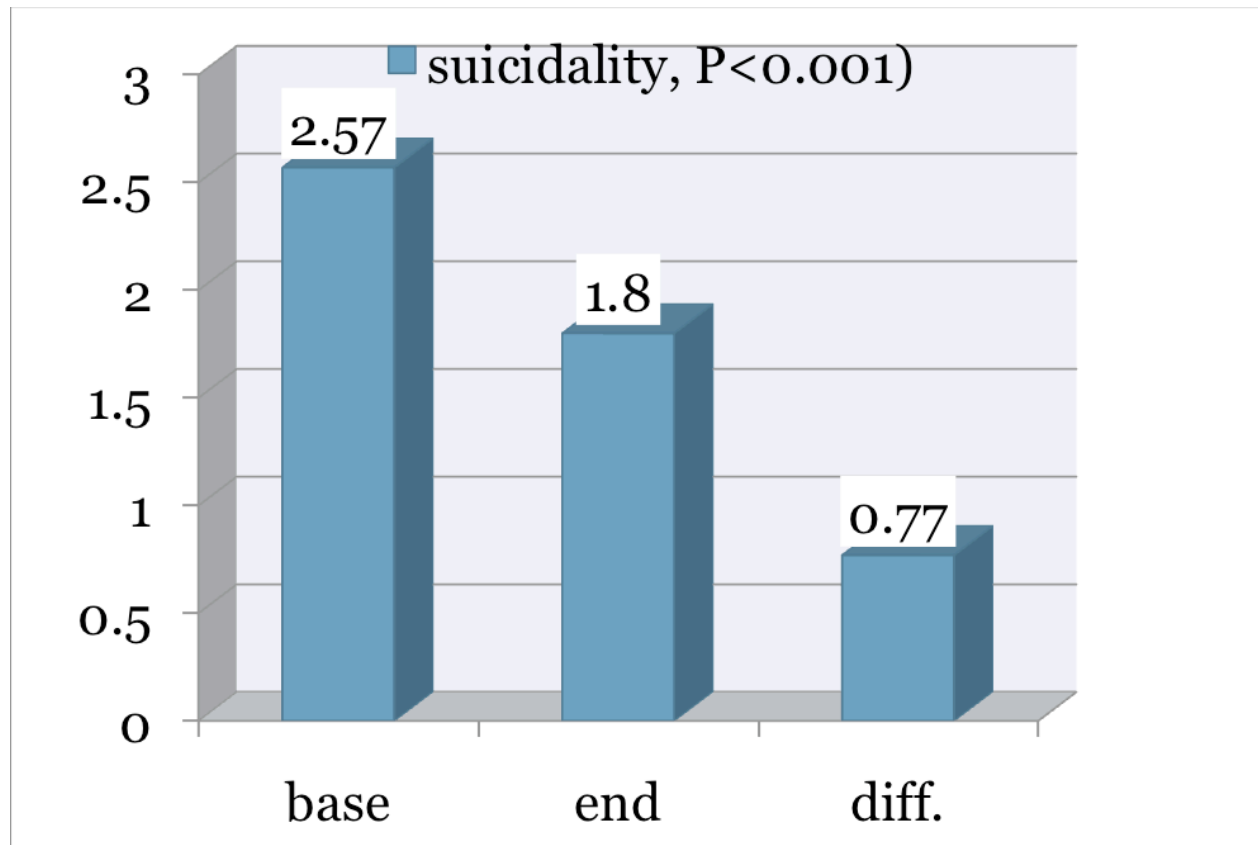




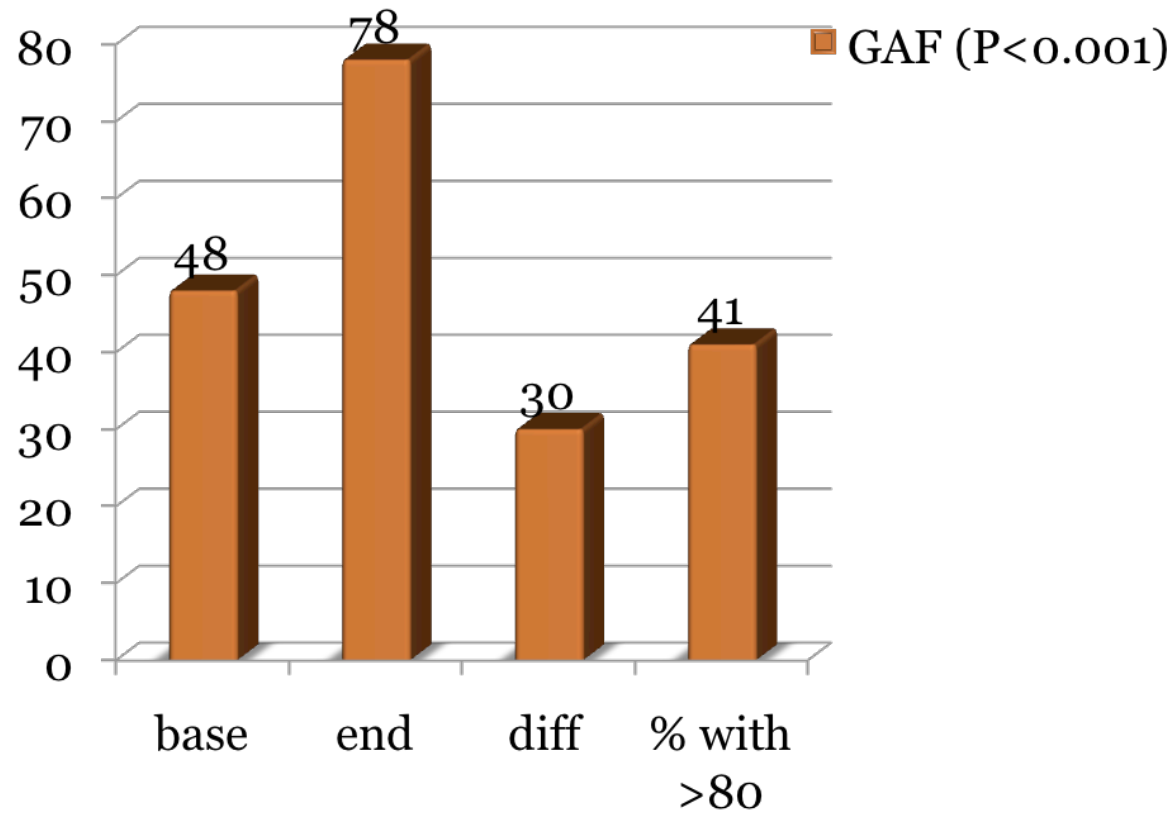
# Family Burden



# Suicidality



# Global assessment of functioning

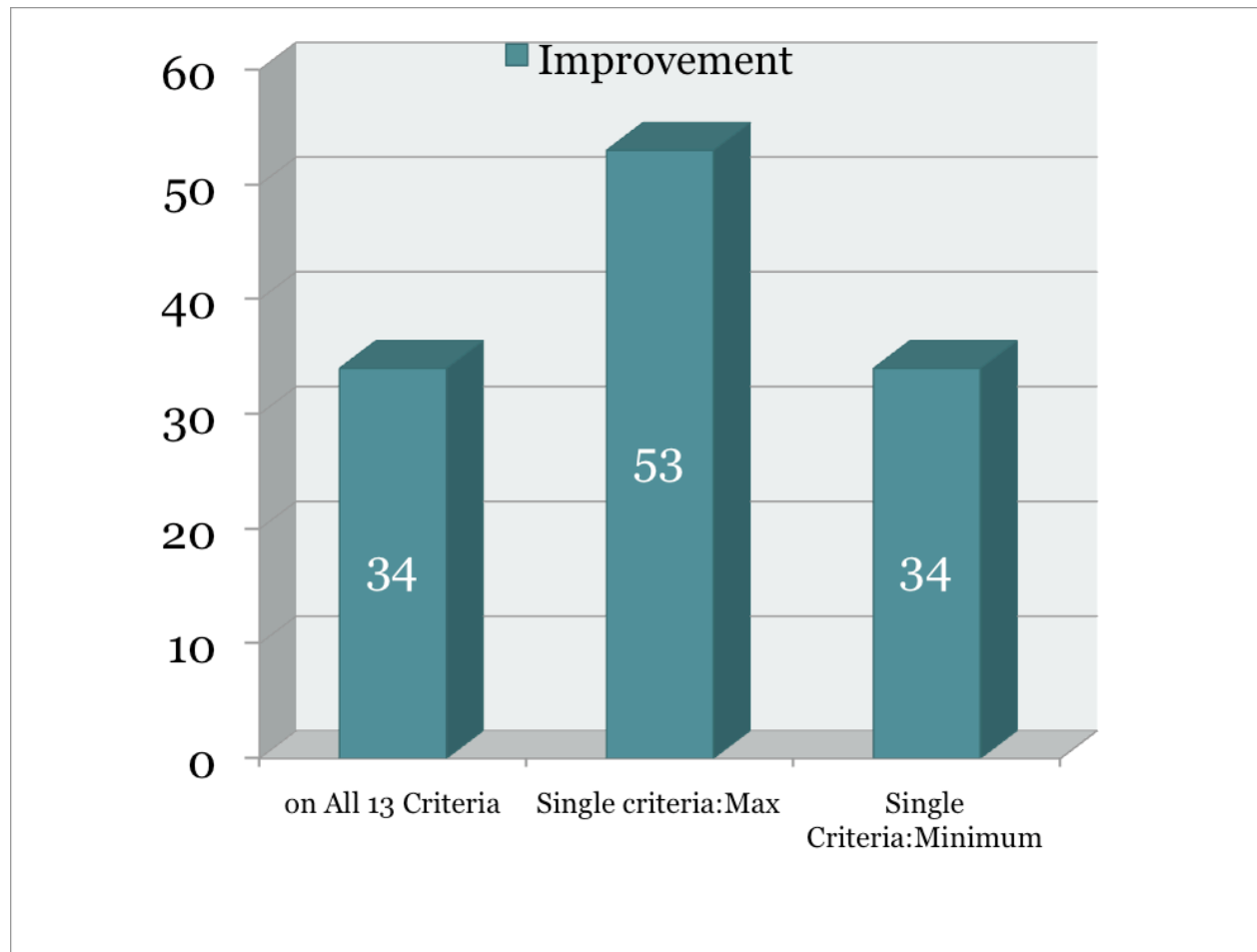


Hospitalization does not Correlate with any of the thirteen outcome variables ( P < 0.01 to P< 0.5, NS)

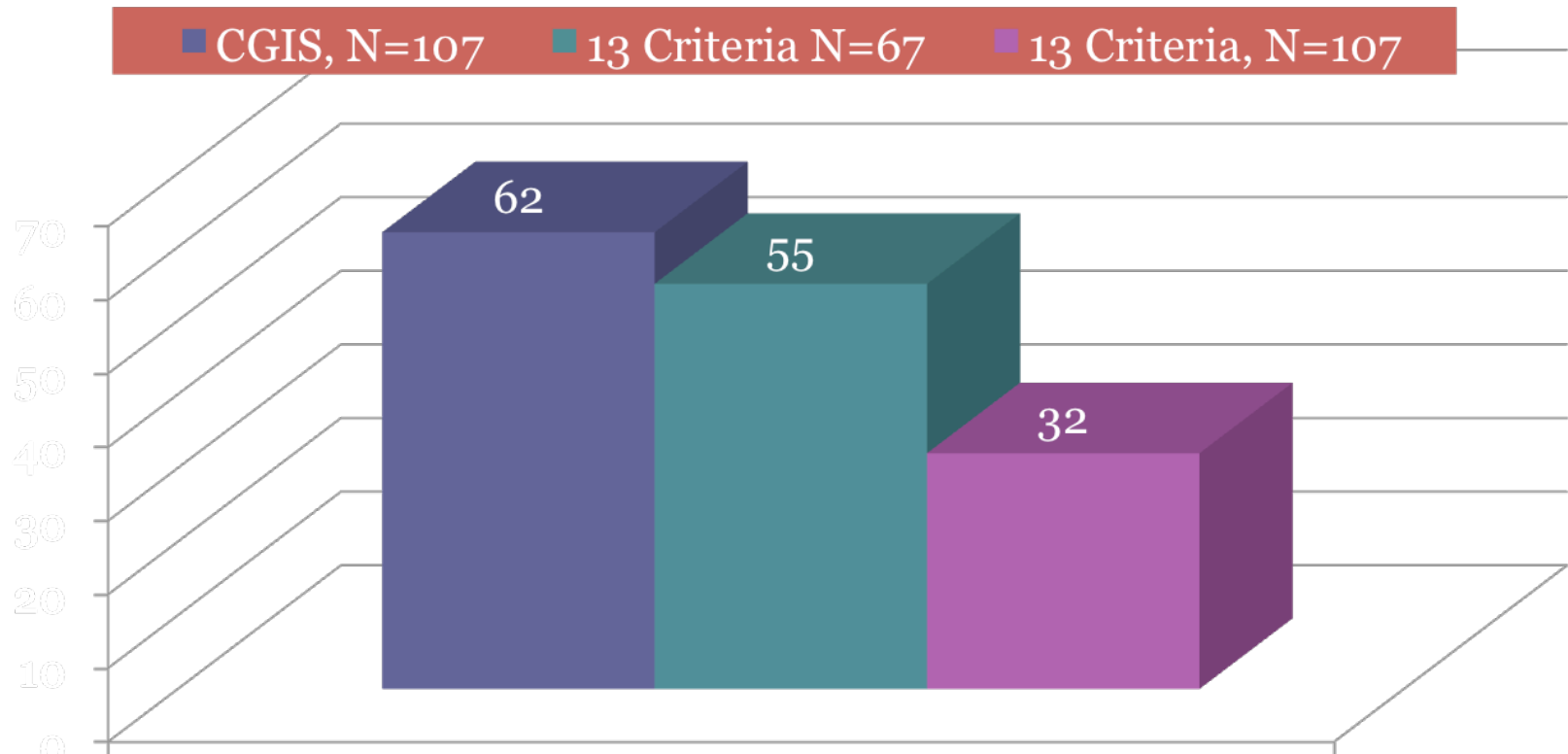
parameters	Hospitalized(25)	Non-hospitalized (42)	P-value	significance
Positive symptoms	28	42	0.01	NS
Negative symptoms	15	21	0.05	NS
Disorganization	17	24	0.05	NS
Interpersonal functioning	12	30	0.01	NS
Cognition not Declined	14	20	0.05	NS
Independent living possible	12	17	0.5	NS
Aggression not present	22	30	0.05	NS
Improved QOL	16	30	0.5	NS
Family Burden	15	25	0.01	NS
Social burden	23	29	0.05	NS
No Suicidality	23	29	0.01	NS
Sustained work/school	15	17	0.01	NS

Cross analysis of independent variables against hospitalized Vs non-hospitalized did not provide statistically significant parameter. The two groups do not differ significantly on several parameters assessed.

# Improvement with various Criterias



# Re-assessed outcome at 10 years



Good outcome appears to have several variables



Why does schizophrenia show ‘poor’ outcome in developing Countries as well.

- Changing culture
- Treatment response
- Changing phenomenology: Needs studies
- Changing families
- Late intervention
- Treatment design, Lack of continuity
- Lack of support system, resource, accessibility
- Stigma
- Poor advocacy and awareness

# Conclusion

Schizophrenia is a complex neurobehavioral disorder with limited outcome.

Multidimensional Clinical and Social recovery is achieved in 32% subjects in ten years treatment.

Half of the patients improve with no concomitant difficulty while another half improves varieties of disability

Outcome measures in schizophrenia need to be re-structured to capture real-life situation.