Responsiveness to change and concurrent validity of the Activity Participation Outcome Measure (APOM) in Adolescent Mental Health Care Users

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Introduction

- Adolescent population group is often overlooked and grouped with either the child or adult populations.
- It has been noted that the population group between 10-19 years of age comprises of 18.5% of the South African population. (UNFPA South Africa 2014)
- There are various factors impacting on their cognitive, physical, social and emotional development

Literature review

- Environmental factors, such as the school and living situations, family and peer relations, all play a role in providing either providing the risk or protective factors in their development. (Mulye, Park, Nelson *et al.* 2009)
- Peer relations influence the types of activities engaged in, with a difference between genders.
- Some adolescents who struggle socially can display negative behaviours due to not fitting in with their peer groups. (Gentry & Campbell 2002)

Literature review

- Risk taking behaviour has a negative impact on the occupational performance areas of the individual as well as on their mental health (Fergusson 2002)
- As the developmental process takes place and as a certain number of adolescents struggle to cope with the demands of the transition, there is a need for the utilization of mental health care services, which includes many disciplines, such as occupational therapy.
- There has been evidence which suggests that there are advantages to the admission of adolescents, and even further advantages should these units be purely adolescent based. (Smith 2004)

Literature review

- There are numerous assessment tools and outcome measures available to determine level of functioning and track change during and after intervention. However few have been noted to be used within the adolescent population group that track change in occupational performance, specifically in mental health.
- Outcome measures are used to establish baseline functioning and to track change after intervention.
- They provide the much needed evidence of service delivery

Literature review

- When responsiveness of an individual to intervention is measured trends can be noted during and after the implementation of the intervention.
- There is minimal literature to highlight the trends of change in activity participation of individuals engaging in Occupational Therapy intervention programmes especially within the adolescent group.

Literature review

- During a study conducted by Schnell, it was concluded that it was useful obtaining the baseline level of functioning and tracking the progress made within the ward, which assisted in making clinical decisions and whether the individual was ready for discharge, and how the young person with a mental illness recovers. (Schnell 2008)
- It provides the treating teams with the necessary information on the activity participation changes, the readiness of discharge, and provides the client with improved satisfaction levels, noting their improvement from admission. The therapist is also able to evaluate whether individuals are able to re-integrate back into the community, occupying functional roles.

Literature review

- This information would be valuable as a measure of the effectiveness of inpatient programmes, together with the amount of change that can be documented over the period of their stay.

Objectives of study

- To determine the responsiveness to change in activity participation according to APOM scores

- To explore factors related to change in activity participation according to APOM scores

Methodology

- Descriptive Quantitative research design
  - Univariate descriptions of frequencies
  - Correlations between variables
- Single subject design
  - Degree of variability between subjects
  - Small sample
  - ABA design

Methodology contin.

- Research population
  - Adolescent inpatients at Tara Hospital
  - Data collected over an 18-month period
- Inclusion criteria
  - 13 years – 18 years 11 months
  - All diagnostic groups
- Exclusion criteria
  - Eating disorders
  - MHCUs identified as too psychotic or medically unstable to attend therapy

Data collection

- Demographic information
  - Interview

- Activity participation with APOM – developed by D. Casteleijn
  - Baseline (initial measurement)
  - Weekly (until discharge)
  - Follow up (6-8 weeks after discharge)

Data collection contin

Process skills
- Attention
- Pace
- Task Concept
- Organising space and objects

Communication/ Interaction skills
- Physicality (non-verbal)
- Information exchange (verbal)

Lifeskills
- Personal care, hygiene
- Assertiveness, stress and conflict management
- Pre-vocational skills, Vocational skills

Role Performance
- Awareness of roles
- Role balance, competency

Balanced lifestyle
- Time use and routines
- Habits

Motivation
- Goal directed behaviour
- Locus of control

Self Esteem
- Self worth
- Attitude towards self
- Awareness of qualities

Affect
- Repertoire of emotions
- Control
- Mood

Data collection contin.

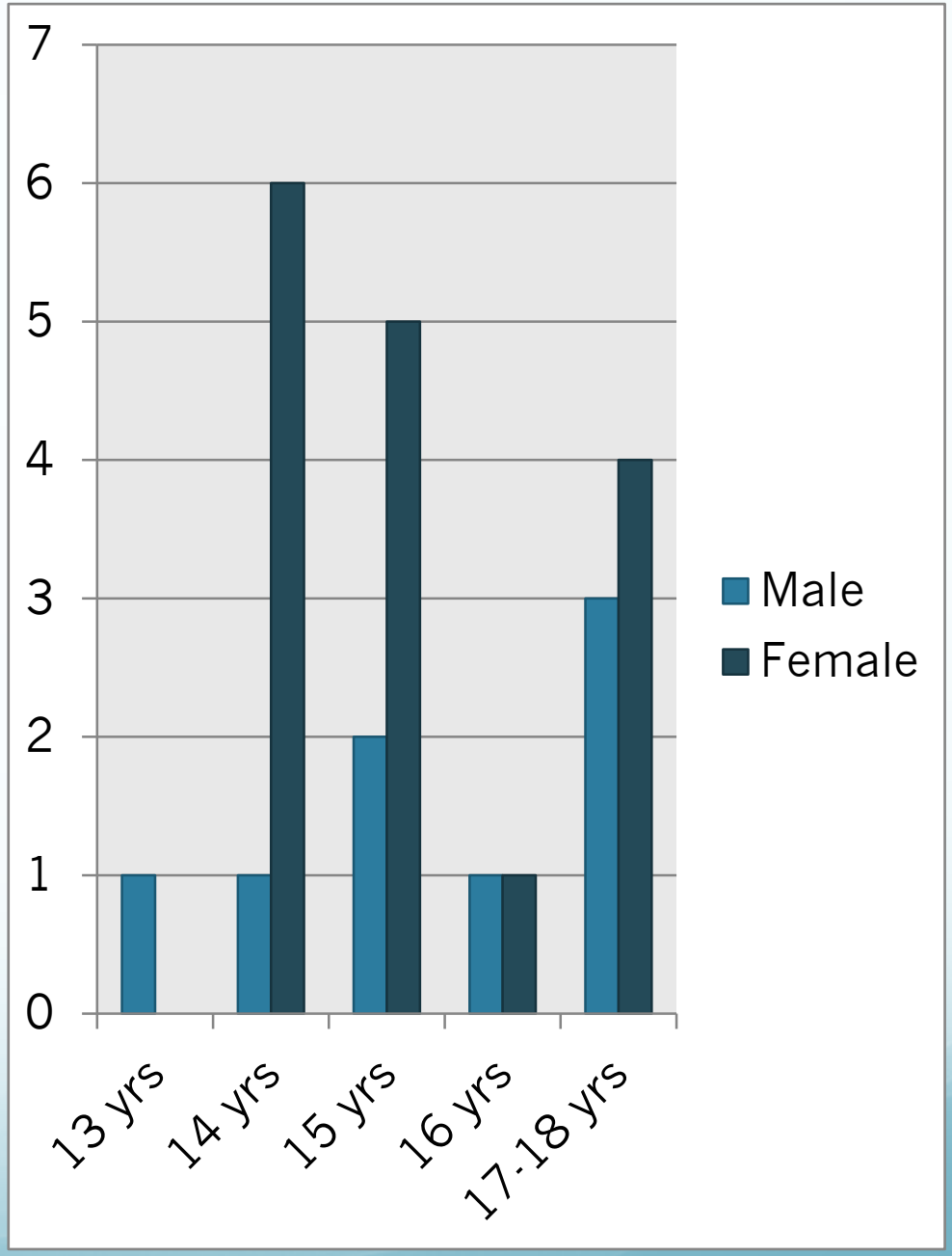
- Ethical considerations
  - Human Research Ethics Committee
  - Permission from Tara Hospital research committee
  - Consent forms for parents of inpatients
  - Assent forms for inpatients
  - Participation was voluntary

Analysis

- Change between admission, discharge and follow up assessment data compared for each participant.
- Effect size calculated using Cohen's *d* between baseline (admission score) and final (discharge score), and baseline (admission score) and follow-up
- Wilcoxon test was used to determine if there was a statistically significant difference between admission, discharge and follow up
- Visual inspection line graphs used for each participant to represent the change

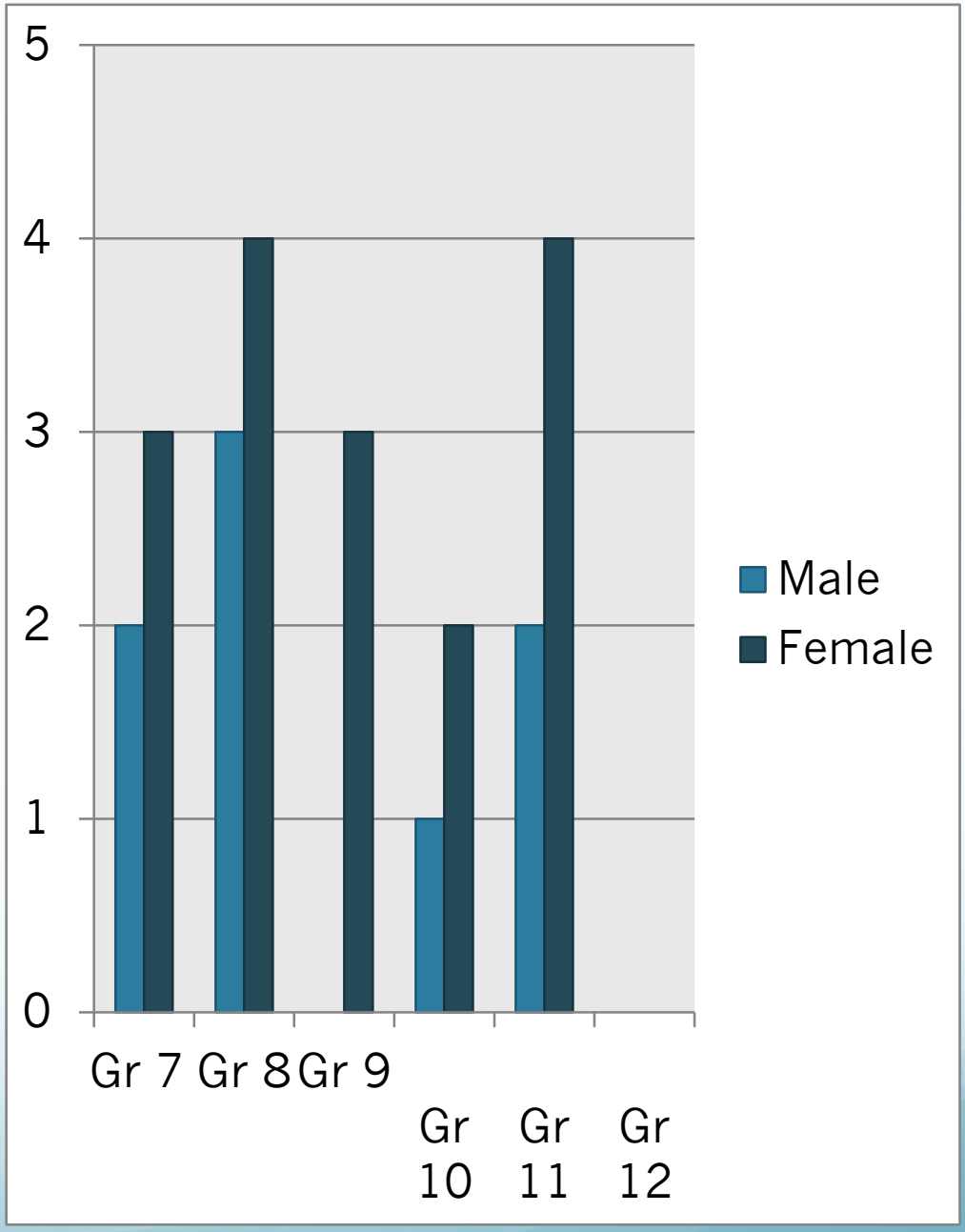
Results and discussion

- Age of participants
  - Range between 13 years and 18 years old
  - Higher female population group



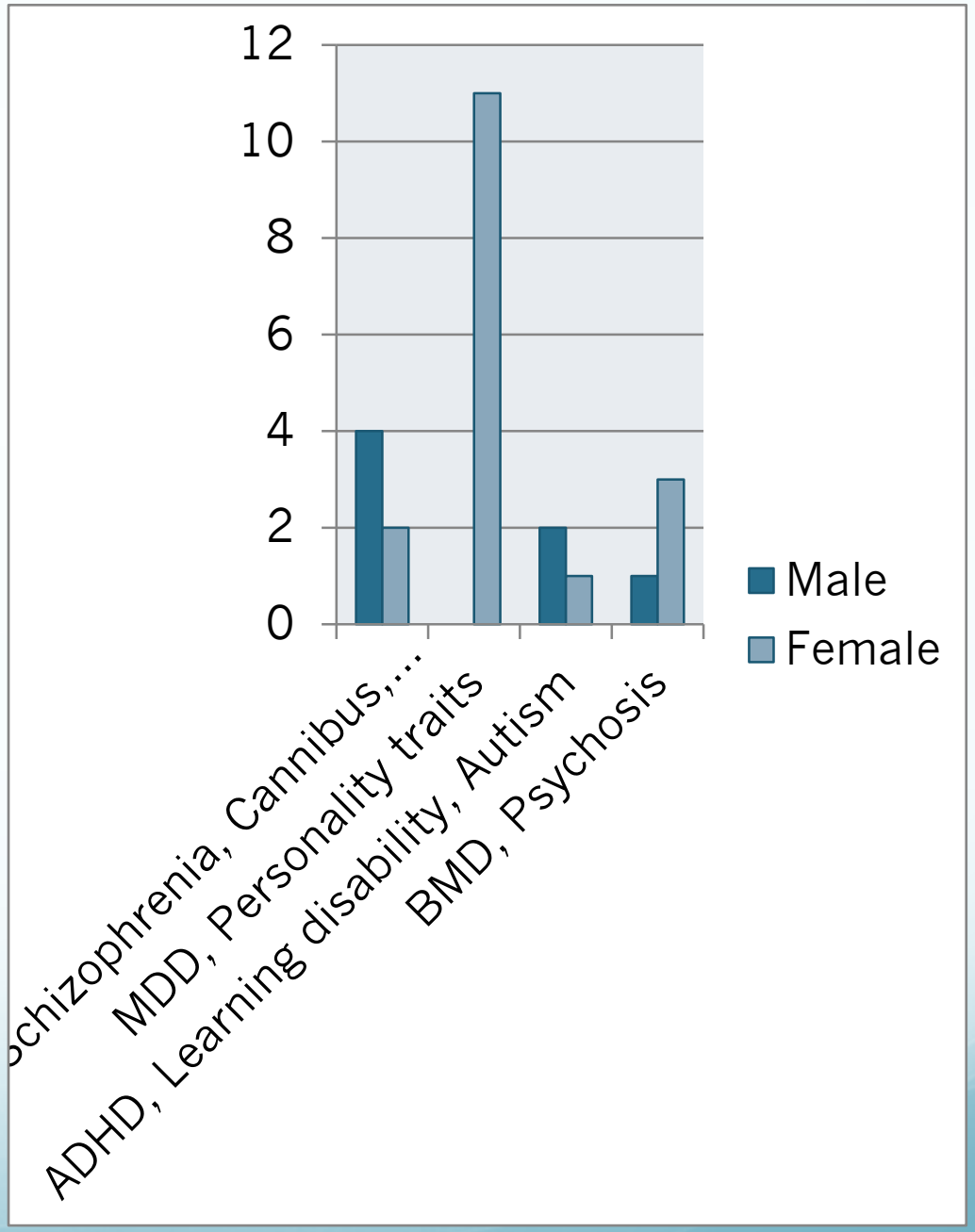
Results and discussion

- Grade
  - Distribution across grades
  - Higher numbers between 8-11



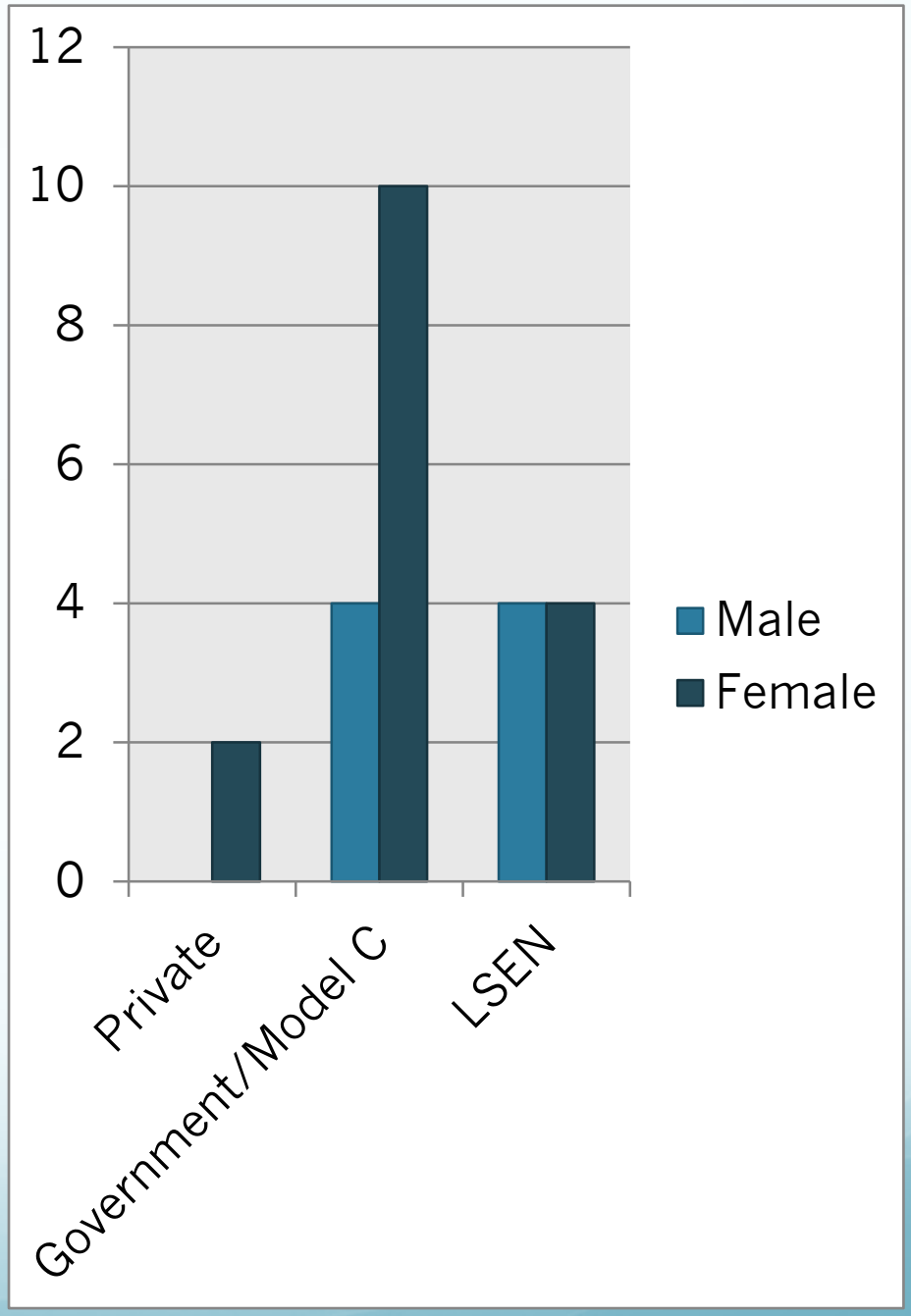
Results and discussion

- Diagnoses of sample
  - Higher female population with mood disorders
  - Male participants presented with psychosis, schizophrenia and substance abuse
  - Combination of anxiety, personality traits



Results and discussion

- Majority
  - Government/ model C schools

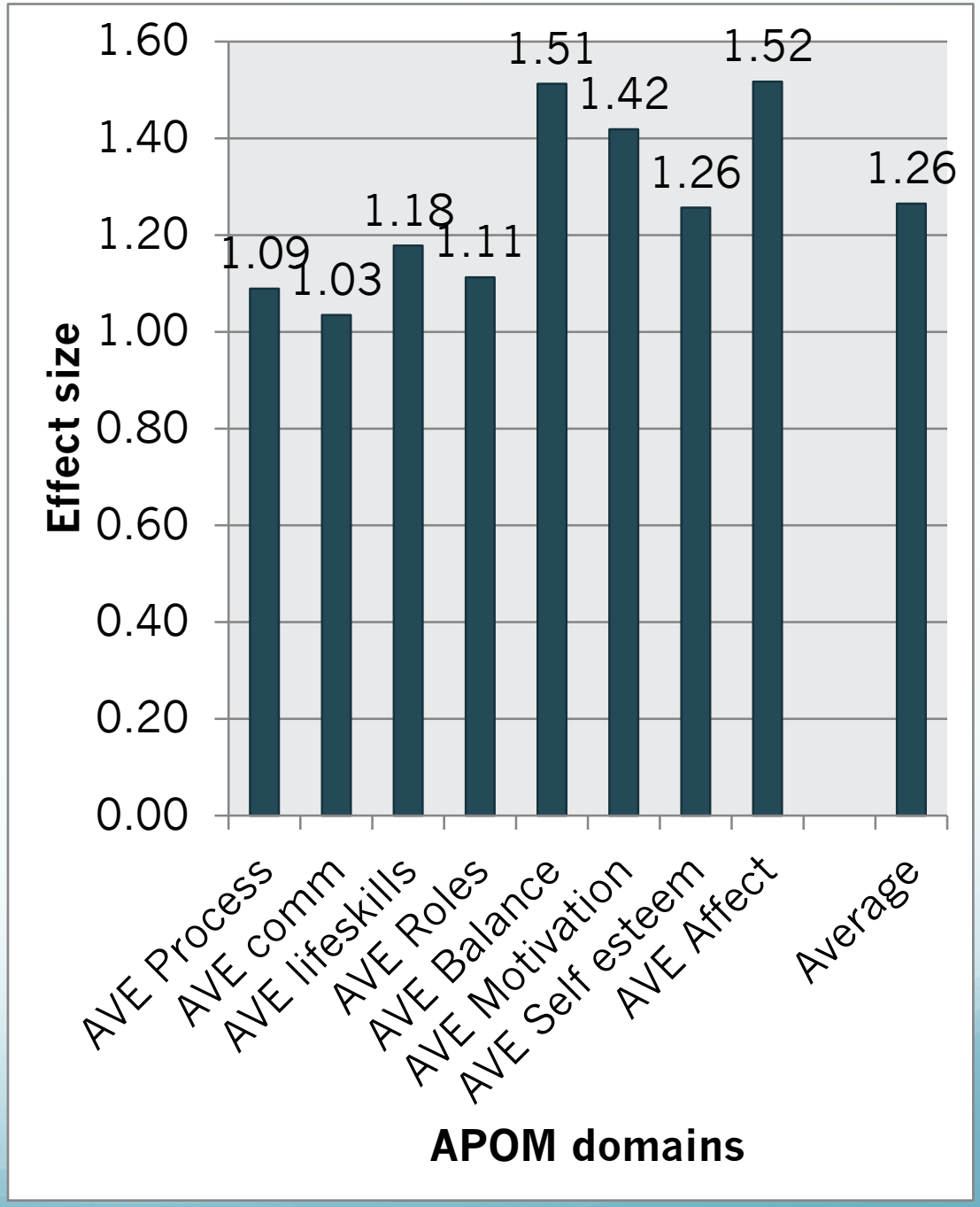


Missing data table

Collection points	Number of participants (APOM)	Male	Female	Participant names/ ID's (APOM)
Baseline	**24**	**8**	**16**	**Participants A-X**
Final	**22**	**5**	**9**	**Participants A, B, C, D, E, F, G, H, J, L, M, N, Q, R, T**
Follow-up	**7**	**2**	**5**	**Participants C, D, E, G, L, M and R**

Results and discussion

- Effect size between baseline and discharge



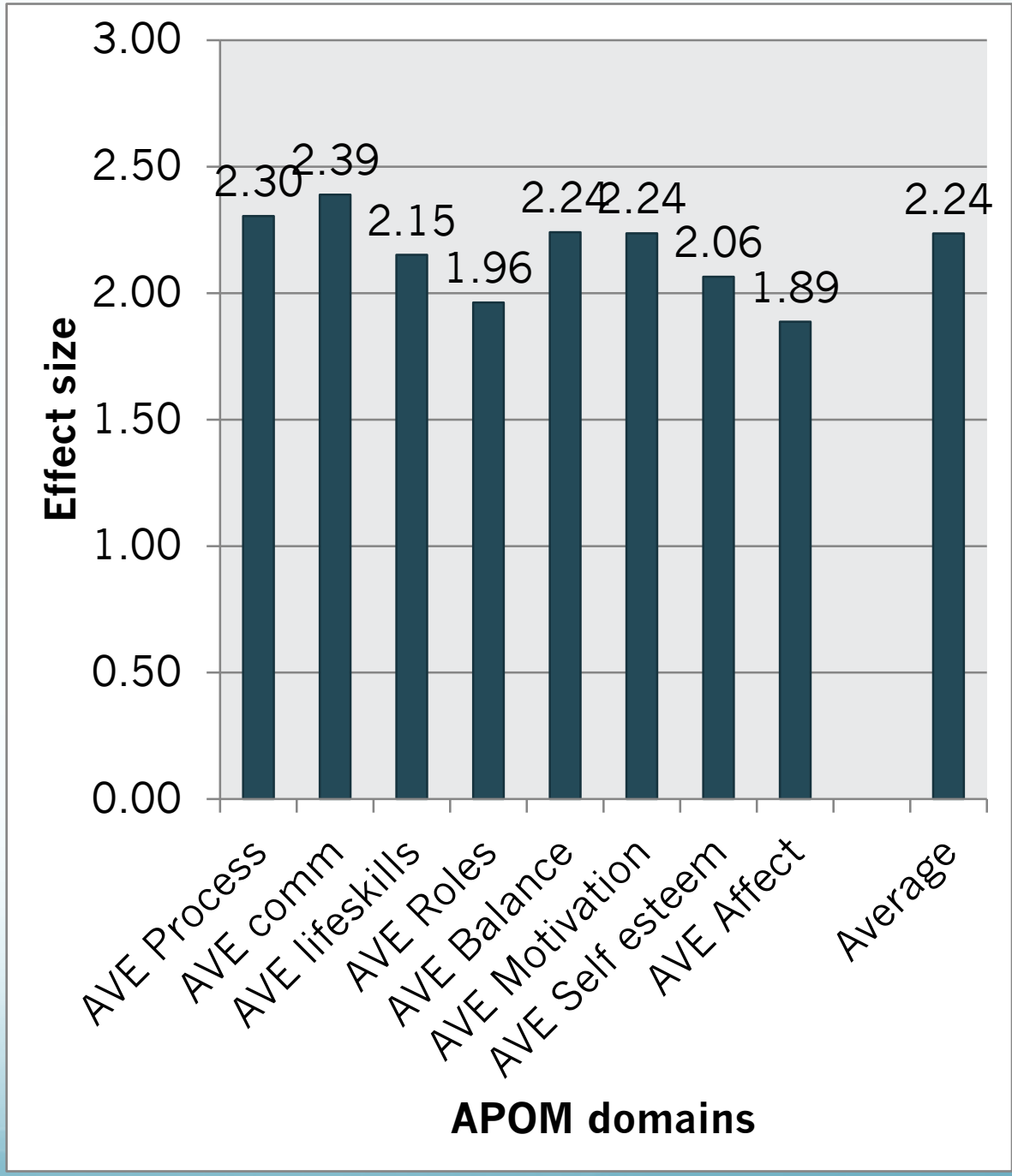
Results and discussion

- Wilcoxon test
  - Between admission and discharge
  - Statistically significant
  - p-value= 0,00

Pair of Variables	Wilcoxon Matched Pairs Test Marked tests are significant at p <.05000			
	Valid N	T	Z	p-value
Baseline & Final	22	0.00	4.106	0.00

Results and discussion

- Effect size between baseline and follow up

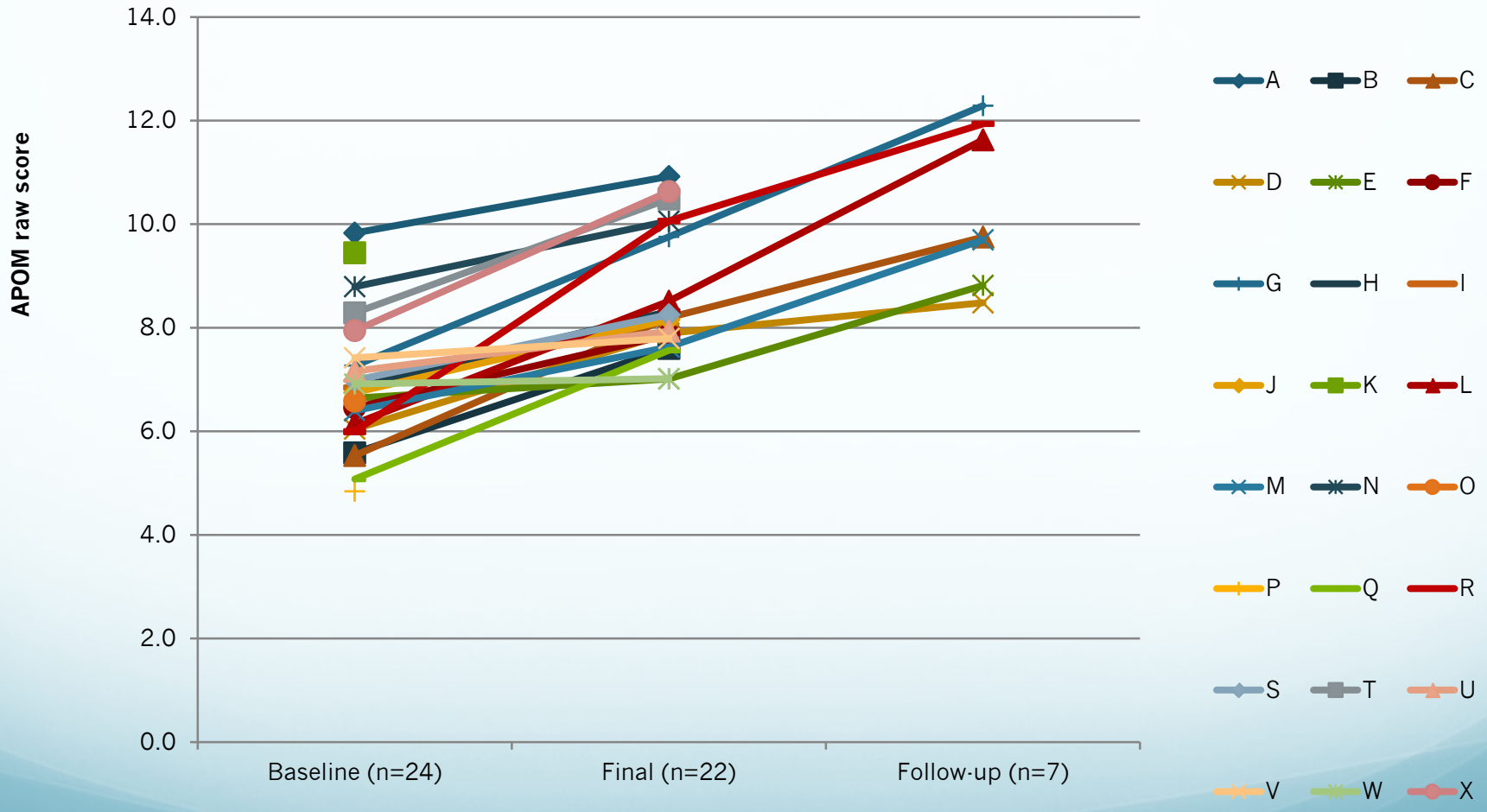


Results and discussion

- Wilcoxon test
  - Between admission and follow up
  - Statistically significant
  - p-value= 0,018

Pair of Variables	Wilcoxon Matched Pairs Test Marked tests are significant at p <.05000			
	Valid N	T	Z	p-value
Average Baseline & Average Follow-up	7	0.00	2.36	0.018

Tracking of total sample



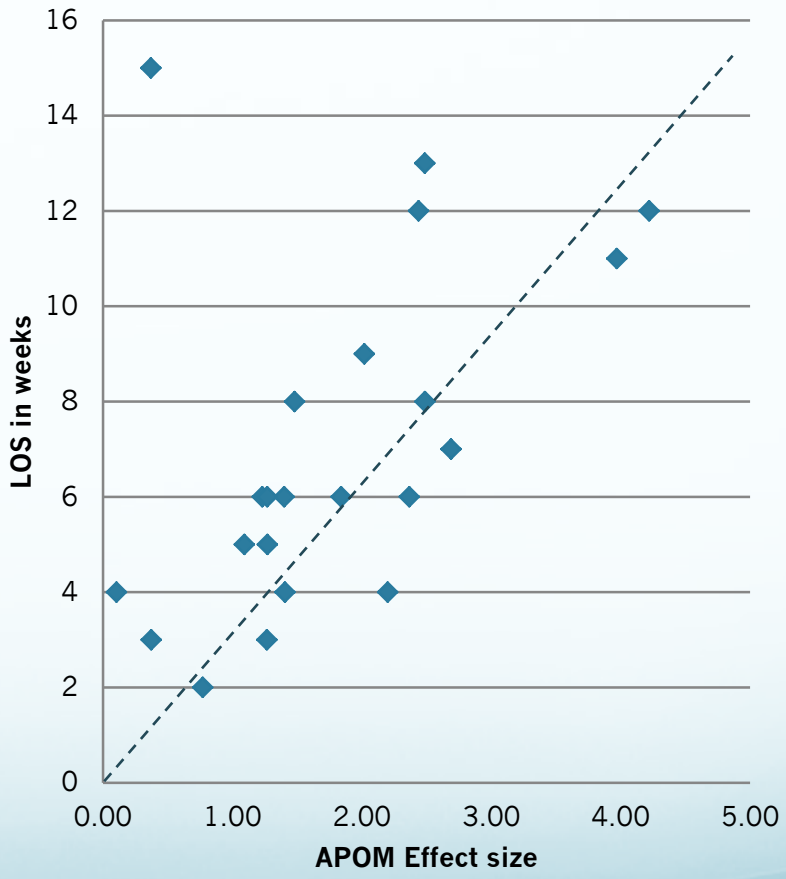
Results and discussion

- Length of stay per diagnostic group

Diagnostic group	Average length of stay in weeks
Schizophrenia, cannabis, psychosis (n=6)	8,5 weeks
Major depressive disorder, personality traits (n=11)	4,5 weeks
Bipolar mood disorder, personality traits (n=4)	6 weeks
ADHD, Learning disability, Autism (n=3)	7 weeks

Length of stay and APOM effect size

- This graph shows that there was a good change between 4-8 weeks of the inpatient stay



r= 0,571

Conclusion

- Usefulness of APOM
  - Rate of change in activity participation during the inpatient stay
  - Length of stay in order to reach maximum potential of activity participation
  - Readiness for discharge
    - 7 – 9 on the APOM scoring: MHCU not being expected to independent functioning
    - 10 – 12: more independence but being unsure of their skills and needs encouragement and external support,
    - 13 – 15: independent, being able to cope with usual demands but not unexpected changes.
  - Amount of support needed when discharged
    - Information relayed to families and schools

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Thank you!