Emerging factors influencing motor skill development among preschool learners in the West Coast of South Africa

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(In collaboration with 4th year OT students research)
Stellenbosch University: Faculty of Occupational therapy and Faculty of Physiotherapy
Grade R pupils
Government Schools
Mainstream schools
Age 5 – 7
Multistage Cluster Sampling
according to:
– Education District
– Location (urban main place; urban area; rural area)
– Fee vs no-fee

Exclusion criteria:
– Neurological conditions e.g. cerebral palsy
– Physical disabilities
– Physical injuries
Instrument: Movement Assessment Battery for Children (M–ABC2)

- Age Bands (4 – 6)
- Categories: Manual dexterity
  - Aiming & Catching
  - Balance
- Percentiles: <5th, 5 – 15th, > 15th
RESULTS: Prevalence data

<table>
<thead>
<tr>
<th></th>
<th>Below 5th percentile</th>
<th>Between 5th and 15th percentile</th>
<th>Below 15th percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total score</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Manual dexterity</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Aiming and catching</strong></td>
<td></td>
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<tr>
<td><strong>Balance</strong></td>
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</tbody>
</table>

DCD Prevalence 5 – 13%
Results: Gender (below 15th %)

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total score</td>
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<tr>
<td>Manual Dexterity</td>
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<td>15</td>
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<tr>
<td>Aiming and catching</td>
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<td>5</td>
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<tr>
<td>Balance</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>
Playgrounds (below 15th %)

Total impairment scores (14.5%)

- 7.25% Extensive Playground
- 5.08% Limited apparatus
- 2.18% No apparatus

- Manual Dexterity (24.6%)
  - 12.3% Extensive Playground
  - 10.13% Limited apparatus
  - 2.16% No apparatus

- Aiming and catching (4.3%)
  - 2.15% Extensive Playground
  - 2.15% Limited apparatus
  - 0% No apparatus

- Balance (18.1%)
  - 5.1% Extensive Playground
  - 5.1% Limited apparatus
  - 7.9% No apparatus
No/limited playground

Extensive playground
No fee vs fee

Total impairment scores (14.5%)

- 4.35 No fee
- 10.15 Fee

- Manual Dexterity (24.6%)
  - 7.13 No fee
  - 17.22 Fee

- Aiming and catching (4.3%)
  - 0.73 No fee
  - 3.6 Fee

- Balance (18.1%)
  - 7.24 No fee
  - 10.86 Fee
Weight and height

- <5th % = 17.5 kg
- >15th % = 20 kg

- <5th = 109.5 cm
- >15th % = 115 cm