# Prevalence's and practices of Simulation use in the undergraduate Nursing Curricula

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# Background to the study:

Part of a larger study

Literature suggests a possible underuse of simulators in nursing education.

Situational analysis

**Aim:** assess the prevalence and practices of simulation in the 4 year degree or diploma

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# Data Collection

- The validated *Prevalence's and Practices of Simulation* survey (Hayden, 2010) used with permission.
- Surveys were e-mailed to a representative sample of educators using simulation at NEIs (University and Colleges)
- **Sampling Issues**
- **Final Sample**
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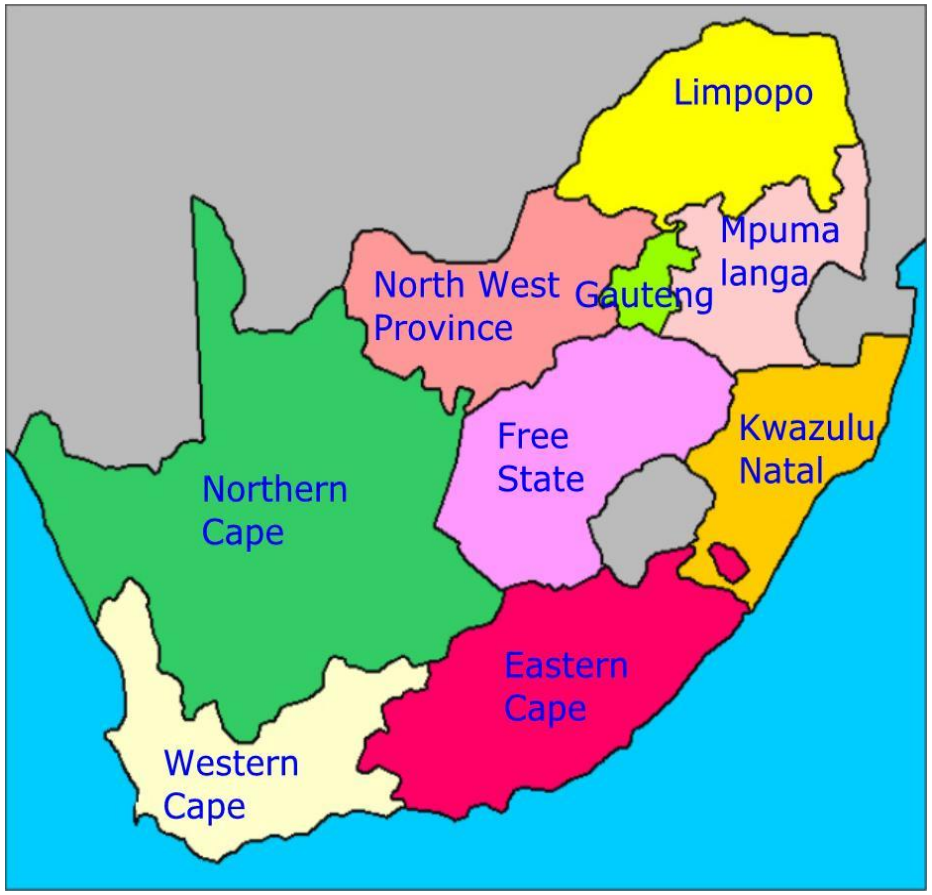
# Distribution of sent surveys

| Province | University | College | Other | Total |
|---|---|---|---|---|
| Gauteng | 25 | 10 | | 35 |
| Western province | 4 | 6 | | 10 |
| Eastern province | 11 | 3 | | 14 |
| Limpopo | 8 | 4 | | 12 |
| Kwa Zulu Natal | 9 | 7 | | 16 |
| Northern Cape | 0 | 2 | | 2 |
| Mpumalanga | 0 | 5 | | 5 |
| Free State | 9 | 8 | | 17 |
| Northwest province | 9 | 2 | | 11 |
| Not delivered - returned | | | 16 | 16 |
| Sample Total | | | | 138 |

# Demographic data

| **Description of NEI** | |
|---|---|
| University | 34 |
| College | 17 |
| **TOTAL** | **51** |
| **Type of program** | |
| 4 year degree | 34 |
| 4 year Diploma | 15 |
| Skipped question | 2 |
| **TOTAL** | **51** |
| **Geographical location** | |
| Rural | 2 |
| Suburban | 3 |
| Urban | 37 |
| Skipped question | 9 |
| **TOTAL** | **51** |

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For this study simulation was defined according to the level of fidelity of the manikin or scenario.

*High-fidelity simulation: programmed to respond to affective or psychomotor changes*

*Medium fidelity: manikins with installed human qualities that don't respond to students actions*

*Task trainers: part of a manikin designed for a specific psychomotor skill.*

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# Type of simulation used per year group

| | High-fidelity Simulation | Medium-fidelity Simulation | Task trainers | Total respondents |
|---|---|---|---|---|
| First year | 11.11% (4) | 47.22% (17) | 83.33% (30) | (36) |
| Second year | 21.88% (7) | 50.00% (16) | 65.63% (21) | (32) |
| Third year | 38.71% (12) | 51.61% (16) | 70.97% (22) | (31) |
| Fourth year | 39.29% (13) | 45.45% (15) | 60.61% (20) | (33) |

# Scenario Information

| | Yes | No | Total respondents |
|---|---|---|---|
| Are scenarios commercially purchased? | 43.48% | 75.67% | 41 |
| Educators that write their own scenarios | 95.0% | 5.0% | 40 |
| Educators that share their scenarios with other NEIs | 17.50% | 82.50% | 40 |

|  | Colleague evaluation | Pilot testing | Student review | None |
|---|---|---|---|---|
| Quality of simulation session/scenario<br>Multiple choices could be selected. | 25.64% | 7.69% | 61.54% | 25.64% |

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# Types of learning opportunities offered by simulation in the NEIs

| | |
|---|---|
| Practice procedures such as suctioning, Foley's catheter insertion, medication administration | 90.70% |
| Practice routine assessments such as health and lung sounds expected in clinical normal and abnormal findings | 46.51% |
| Practice patient scenarios discussed in class | 72.09% |
| Practice rare scenarios that students may not see in clinical facilities | 46.51% |
| Practice high risk patient scenarios | 34.88% |

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# Debriefing practices

| | |
|---|---|
| Educators debrief students routinely after simulation | 43.59% |
| Debriefing does not occur after simulation | 56.41% |

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# Educator training in Simulation

| | |
|---|---|
| Formal training in simulation i.e attended a workshop | 12.2% |
| Introductory course in simulation | 78.02% |
| No training | 8.76% |

# Perceptions about the amount of simulation

| | |
|---|---|
| Should be using more simulation in their programmes | 95.23% |
| Using just enough simulation | 4.77% |

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# Discussion of Findings

- Use of Simulation in NEIs
- Types of simulation
- Areas of concern
- Debriefing

- Limitations of the study
- Recommendations


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