Impact of e-Health postgraduate education on careers and professional practices: a qualitative study

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Introduction
➢ Growing evidence for effectiveness
➢ Many projects
➢ Allocation of funding
➢ Changes in policies
But …...
➢ Limited use in regular practice
➢ A numbers of reasons ….

Lack of education
➢ Evidence of lack of education and training
➢ Education is not a priority
➢ No funding for education and training
➢ Lack of educational and training opportunities

Value of education
➢ Evidence shows that education works
➢ University education/higher education
➢ Two particular purposes:
  - to provide relevant knowledge and skills for practice
  - to give qualification to advance careers

Over 10 years
Postgraduate programs/undergraduate
Range of topics theories, technological solutions, evidence
Blended learning (online and face to face)
Nearly 1000 students undergraduate course
Over the past 10 years nearly 80 postgrads

Objectives
To investigate subsequent professional careers of graduates
To understand level of e-health use
To examine level of satisfaction of learning experience

Methods
Survey using Survey Monkey (March 2011)
To all graduates (2005-2010)= 39 graduates
Survey examined:
- demographics
- satisfaction of learning experience
- careers
- e-health related practices

Results
35 surveys completed (89% response rate)
Demographic characteristics of graduates who completed the questionnaire (n=35)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>%</th>
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<tbody>
<tr>
<td>Female</td>
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<td>43</td>
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<tr>
<td>Male</td>
<td>20</td>
<td>57</td>
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<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Number</th>
<th>%</th>
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<tbody>
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<td>30-39</td>
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<td>40-49</td>
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<tr>
<td>50-59</td>
<td>5</td>
<td>14</td>
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<tr>
<td>&gt;59</td>
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<table>
<thead>
<tr>
<th>Current occupation</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>IT/business</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>Other</td>
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<table>
<thead>
<tr>
<th>Length of time in occupation (years)</th>
<th>Number</th>
<th>%</th>
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<tbody>
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<td>1-2</td>
<td>6</td>
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<td>3-10</td>
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<td>46</td>
</tr>
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<td>&gt;10</td>
<td>14</td>
<td>40</td>
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<table>
<thead>
<tr>
<th>Educational qualifications</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health/medicine</td>
<td>19</td>
<td>54</td>
</tr>
<tr>
<td>IT/business</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>11</td>
</tr>
</tbody>
</table>

Satisfaction: e-Health program

- 54% (n=19) Graduate Certificate
- 34% (n=12) Master of e-Healthcare
- 12% (n=4) Grad Dip e-Healthcare

- 91% (n=32) good or very good

Positive aspects

- Flexible delivery mode
- Topics covered
- Case studies
- Assessment tasks were practically oriented
- Encouraged critical thinking about clinical use
- Coordinator was organised and instilled passion in the field
- E-learning tools (online forums, online lectures) created stimulating learning environment
- Activities such as project design was useful
- Student support
- Practical sessions were useful

Negative aspects

- Written essays were boring
- Too many online activities; need more hands-on experience
- Sometimes I felt unsupported
- Not enough technical aspects covered
- Distance learning was challenging
Impact on careers

- 83% (n=29) perceived e-health education helped in career development
- 77% (n=27) worked in e-health after graduation
- 66% (n=23) current work is related to e-health
- 88% (n=31) high satisfaction in their work
- 51% (n=18) tracking toward research higher degrees

How did e-health education help in career?

- Helped finding my current job in AusAID
- I am CEO of a not for profit organisation
- I teach courses in telehealth in a university
- I found a job in a leading GP organisation as e-health project coordinator
- I was promoted to the Director of National Telemedicine Program
- Found a job in a PACS unit in a tertiary hospital
- Advanced career as a medical educator

How did e-health education help your practice?

- I use e-health as a medical officer in defence force
- As a doctor I use telehealth in my medical practice
- My organisation use e-health for helping parents and families of deaf kids
- I use e-learning tools in my work at the college of radiologists
- As a military nurse, I use e-health in operational areas
- As a telehealth officer, I am responsible for projects in my state
- As the Director of National Telemedicine Program, I coordinate a number of e-health projects

Why e-health education did not helped?

- No demand for e-health in my workplace
- Very limited e-health jobs in defence
- E-health is not well established in my state
- Finding a job in e-health is hard
- My career progressed outside e-health
- My career was satisfactory without e-health
Some 80 students graduated over 10 years
This number is not large compared to other programs such as business, medicine, public health
Other e-health programs are similar
The objective of this program to build workforce
Results show the objective is being achieved
Majority of graduates had health or medical background
Majority already employed

Overall, graduates thought e-health study had positive effect
Some thought they found jobs thanks to e-health study
Others thought e-health study helped in their practice
However the numbers in the program are small, due to lack of professional pathways in niche field
Demand for e-health qualification may grow in the future