A HEALTH POLICY AND SYSTEMS RESEARCH READER ON HUMAN RESOURCES FOR HEALTH
Chapter 3. Building health worker capacity through training and supervision

Timothy Roberton and NS Prashanth
Outline

1. Defining training and supervision
2. Background on training and supervision research
3. Illustrative primary research articles
4. Research challenges and gaps
5. Future directions
1. Defining training and supervision

Some questions...
• What do we mean by training?
• What do we mean by supervision?
• How are training, supervision, and capacity building related?
1. Defining training and supervision

• Training might include:
  – skills development of new health workers
  – maintaining or improving existing skills through job aids or in-service initiatives

• Supervision might include:
  – supervisor-provider interactions
  – broader health worker supports and the organizational environment
The research on training and supervision has sought to...

i. characterize how training or supervision are implemented

ii. measure the quantity or quality of training or supervision

iii. understand stakeholder perspectives and felt experiences of training or supervision

iv. identify barriers and facilitators to effective training or supervision

v. examine the influence of training or supervision on health worker performance

vi. situate training or supervision as part of a larger system, organization, or development strategy
2. Background on training and supervision research

The research on training and supervision:

• draws upon the wider body of knowledge on human resources from management and organizational sciences

• has underpinnings in educational psychology, adult learning, sociology, organizational and management sciences, and participatory action research
2. Key background texts

- Kirkpatrick and Kirkpatrick developed a framework for the evaluation of training programmes

- Potter and Brough’s framework captures the multidimensionality of capacity-building in health

- Kilminster and Jolly defined supervision and laid out a hypothesis for its effect on health worker performance

- Bosch-Capblanch et al. offered the first Cochrane review of the effectiveness of supervision in improving the quality of primary health care
Multidisciplinarity a key aspect of HPSR

Descriptive:
To describe to enable comparability with other contexts and experiences

Exploratory:
Initial research to understand and build hypotheses, concepts, theories

Explanatory:
In-depth research using and testing theory to explain causal mechanisms

Predictive:
To inform about the consequences of preferences and decisions

Emancipatory:
To jointly understand a problem, act on it, and learn from working collaboratively and address power

Influence:
To assess the impact of one variable on another (adequacy, plausibility and probability analysis)

What, when where?

How to empower with change?

What works to effect change?

What if? What next?

Multidisciplinary HPSR research inferences
3. Illustrative primary research articles

- **Understanding training and supervision**

- **Measuring the effects of training and supervision**
  Rowe et al. 2009, Frimpong et al. 2011

- **Health policy and systems approaches to training and supervision**
  Prashanth et al. 2014, Onyango-Ouma et al. 2001

- **The perspective of health workers and managers**
  Bradley et al. 2013, Hernández AR et al. 2015
3. Illustrative primary research articles

Understanding training and supervision programs


<table>
<thead>
<tr>
<th>Health workers</th>
<th>Multiple public sector supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>Zimbabwe</td>
</tr>
<tr>
<td>Research methods</td>
<td>Mixed: qualitative evaluation criteria development, quantitative ratings and time use</td>
</tr>
<tr>
<td>Research inference</td>
<td>Descriptive/ Emancipatory</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- Comprehensive assessment of what happens during supervision interactions
- Dissects the activities that supervisors are expected to undertake, and the extent to which they actually do
- Data collection using multiple methods and sources
3. Illustrative primary research articles

Understanding training and supervision programs


<table>
<thead>
<tr>
<th>Health workers</th>
<th>Multiple public sector facility based health workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>Egypt</td>
</tr>
<tr>
<td>Research methods</td>
<td>Case study</td>
</tr>
<tr>
<td>Research inference</td>
<td>Explanatory/ Emancipatory</td>
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</tbody>
</table>
What makes it exemplary?

- Detailed description of the training implementation process, including the role of local context
- Explains the various health services and population outcomes in relation to the training and other support offered
- Directly links health worker motivation and training, and situates the possible change in the health service context
3. Illustrative primary research articles

**Understanding training and supervision programs**


<table>
<thead>
<tr>
<th>Health workers</th>
<th>Public sector primary health care information system designers and users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>East African country undisclosed</td>
</tr>
<tr>
<td>Research methods</td>
<td>Qualitative: ethnographic case study</td>
</tr>
<tr>
<td>Research inference</td>
<td>Explanatory</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- One of the few published studies that documents and analyzes a programme that did not meet its objectives
- Offers possible reasons for the rejection of the innovation
- Describes and links the intervention to the complex organizational setting
3. Illustrative primary research articles

Measuring the effects of training and supervision


<table>
<thead>
<tr>
<th>Health workers</th>
<th>Public sector facility based health workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>Benin</td>
</tr>
<tr>
<td>Research methods</td>
<td>Quantitative: observation and re-examination of consultations, structured interviews with health workers and caretakers, facility assessments</td>
</tr>
<tr>
<td>Research inference</td>
<td>Influence</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- Employed a robust study design (randomized control trial with three study arms) and longitudinal data collection
- Followed-up health workers over six years after training
- Rigorous and diverse data collection methods
- Policy-relevant critique of training programmes when not accompanied by well-designed supports
3. Illustrative primary research articles

*Measuring the effects of training and supervision*


<table>
<thead>
<tr>
<th>Health workers</th>
<th>Public sector community midwives, nurses and extension workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>Ghana</td>
</tr>
<tr>
<td>Research methods</td>
<td>Quantitative: time-use and provider survey</td>
</tr>
<tr>
<td>Research inference</td>
<td>Influence</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- Quantifies the effect of supervision on health worker performance
- Employs a “time-use” study to get measures of productivity as the outcome of interest
- Highlights the challenges associated with measuring the influence of supervision
3. Illustrative primary research articles

*Health policy and systems approaches to training and supervision*


<table>
<thead>
<tr>
<th>Health workers</th>
<th>Public sector primary health care facility managers</th>
</tr>
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<tbody>
<tr>
<td>Geographical area</td>
<td>India</td>
</tr>
<tr>
<td>Research methods</td>
<td>Mixed: realist evaluation using qualitative data (interviews and observation notes) and quantitative measures of commitment, self-efficacy and supervision style</td>
</tr>
<tr>
<td>Research inference</td>
<td>Explanatory</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- Used realist evaluation to explain why a capacity-building intervention worked in some settings and not in others
- Assessed capacity across individuals and teams, in line with a systems approach
- Describes how training programmes can contribute to organizational change
3. Illustrative primary research articles

*Health policy and systems approaches to training and supervision*

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<thead>
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<th>Health workers</th>
<th>Public sector primary health care health workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>Nigeria, United Republic of Tanzania, Ghana, Kenya, Argentina</td>
</tr>
<tr>
<td>Research methods</td>
<td>Mixed: pre &amp; post test, in depth and group interviews, focus group discussions, time use, observation, records review</td>
</tr>
<tr>
<td>Research inference</td>
<td>Emancipatory, Influence, Explanatory</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- Pre-test/post-test study design using a range of quantitative and qualitative data collection methods
- Conceptualizes change at three levels (community, facility, system)
- Explores contradictions that arose from the data and the methodological challenges involved
## 3. Illustrative primary research articles

**The perspective of health workers and managers**

*Bradley S, et al. (2013). District health managers’ perceptions of supervision in Malawi and Tanzania. Hum Resour Health. 11:43*

<table>
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<th>Health workers</th>
<th>Public sector district and council supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>Malawi and United Republic of Tanzania</td>
</tr>
<tr>
<td>Research methods</td>
<td>Qualitative: semi-structured interviews</td>
</tr>
<tr>
<td>Research inference</td>
<td>Explanatory</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- Highlights the power of qualitative research to understand the attitudes and ethos of supervisors
- Revealed challenges and barriers felt by supervisors, and ideas for change from the participants themselves
- Multiple study sites enabled comparison across countries
### 3. Illustrative primary research articles

**The perspective of health workers and managers**


<table>
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<tr>
<th>Health workers</th>
<th>Public sector regional and district managers, primary and secondary health care workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area</td>
<td>Guatemala</td>
</tr>
<tr>
<td>Research methods</td>
<td>Mixed: concept mapping participatory group discussions and multivariate statistical analyses</td>
</tr>
<tr>
<td>Research inference</td>
<td>Exploratory/Emancipatory</td>
</tr>
</tbody>
</table>
What makes it exemplary?

- Rare example of concept mapping applied to training and supervision
- Developed a normative model of supervision – not what is happening, but what should happen
- Integrates the views of stakeholders at different levels of the health system
- Uses an otherwise complex methodology to develop concrete, actionable results
4. Research challenges and gaps

• Capturing the multi-dimensional nature of training and supervision
• Situating training and supervision within their health system context
• Disentangling the specific effect of training and supervision on outcomes of interest
• Standardizing data collection tools for training and supervision, given the variety of settings
5. Future directions

• Further understand the perspectives of trainers and supervisors, and those of the health workers they are training and supervising

• Using new techniques and technology to improve the accuracy and feasibility of measuring training and supervision

• Participatory action research to promote ownership among implementers and health workers

• Triangulation and synthesis of multiple data sources to ensure a system-wide understanding
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http://www.who.int/alliance-hpsr/resources/publications/9789241513357/en/
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