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Responding to health care complexity: suggestions for integrated and interprofessional workplace learning

Pim Kuipers
Griffith University

Carolyn Ehrlich
Griffith University

Sharon Brownie
Aga Khan University, sharon.brownie@aku.edu

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Responding to health care complexity: suggestions for integrated and interprofessional workplace learning

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3 **Responding to health care complexity: suggestions for integrated and**
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5 **interprofessional workplace learning**
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12 **Abstract**
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14 This report highlights complexity in health care and the relevance of integrated and
15 interprofessional care and learning. It is proposed that appropriate workforce training
16 in response to complexity should be contextually relevant and workplace integrated,
17 and should focus on building interprofessional capability for reflective practice and
18 critical thinking. This training should be interprofessional and foster systems
19 thinking. It is suggested that the World Health Organization's International
20 Classification of Functioning, Disability and Health (ICF) is a useful integrating
21 framework.
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34 **The issue of complexity**
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36 The notion of 'complexity' has gained substantial prominence in contemporary health
37 care since being highlighted in a key BMJ series of articles (Fraser & Greenhalgh,
38 2001). Drawing from broader complexity theory, this notion recognises health care as
39 a complex system in which a number of dimensions interact in dynamic, non-linear
40 and unpredictable ways (Katerndahl, Parchman, & Wood, 2010). The interacting
41 dimensions include the patient's complex medical condition(s), treatment-, care-, and
42 patient-related factors, as well as situational, behavioural and health systems factors.
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54 At a systems level, complexity in health care has been linked with the growth of co-
55 morbid conditions, increasing service utilization, the need for more high-cost
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3 procedures, and escalating health care costs (Grant et al., 2011). At a service
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5 provision level, health care complexity has been negatively associated with decreased
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7 practitioner satisfaction, diagnostic dilemmas (Katerndahl et al., 2010), poorer service
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9 quality and reduced outcomes of care (de Jonge, Huyse, & Stiefel, 2006), as well as
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11 uncertainty in areas of clinical education and workplace learning (Sargeant, 2009).
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16 People with complex health care needs require care from skilled and experienced
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18 practitioners, which is continuous and consistent between providers and over time
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20 (Grant et al., 2011). This raises significant challenges for the range of capabilities
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22 required of the health care workforce, and for the provision of education which
23
24 underpins that care (Fraser & Greenhalgh, 2001; Grant et al., 2011).
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28 29 30 **Education and complexity**

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32 The link between interprofessional education and complexity has been noted with the
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34 observation that complexity theory suggests the need for a more flexible, more
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36 diverse, less linear approach to education (Cooper, Braye, & Geyer, 2004). Indeed
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38 clinical education and workplace learning have been proposed as the preferred context
39
40 in which to equip health care practitioners to respond to such complexity in care
41
42 (Fraser & Greenhalgh, 2001). In such contexts, there is a need for a suitable
43
44 framework that encompasses both clinical and systemic dimensions. Such a
45
46 framework may assist health care professionals to critically analyse, reflect and
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48 respond to issues that exacerbate complexity, including the fragmented nature of
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50 health care and the single-disease paradigm.
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3 In light of health care complexity, some principles for an integrated approach to
4 workplace education can be suggested. First, acknowledging complexity requires the
5 practitioner to adopt an interprofessional and collaborative team perspective
6 (McMurty, 2007). Therefore, workplace education for complexity should note the
7 limits of professional expertise and emphasise the importance of the interprofessional
8 team and team dynamics within the context of the health system and the environment
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19 Second, it necessitates an incorporation of both 'systems' level and 'micro' level
20 concerns. Complex systems are comprised of many components that are dynamic and
21 interact continuously. To understand such systems and multiple interactions is very
22 important in health care. Activities such as accurately assessing patient need,
23 coordinating multiple services and providers, ensuring continuity of care, responding
24 to crises, and supporting family and carers, are influenced on many levels (Kodner &
25 Spreeuwenberg, 2002). Thus linear and reductionist approaches to education and
26 practice which focus on component elements of an issue are inadequate to equip
27 practitioners with the capability for such activities. These should be replaced by more
28 systemic approaches which emphasise processes and the conceptualisation of a range
29 of potential influences in any complex situation (Sargeant, 2009).
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45 Third, educating for complexity should avoid training for narrow 'competencies',
46 which also foster reductionism (IECEP, 2011). Instead, education should aim for
47 'capability', which lays a foundation for increasing learning over time which may be
48 generalised to different contexts (IECEP, 2011). In light of this, integrated and inter-
49 professional workplace learning approaches are particularly appropriate for
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3 responding to complexity since learning is contextual and takes place through social
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5 exchange in complex environments (Sargeant, 2009).
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8 9 10 **A framework for complexity**

11 As noted above, a key challenge then is to identify a framework which can reflect the
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13 systems thinking required and which can cross professional boundaries. A useful
14
15 framework that portrays inter-related constructs of health conditions is the World
16
17 Health Organisation's International Classification of Functioning, Disability and
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19 Health (ICF), published in 2001 (WHO, 2001). The ICF (in its full form) is a
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21 comprehensive coding system that provides a standard language for describing human
22
23 functioning, disability and health. It comprises classifications for Body Functions,
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25 Body Structures, Activities and Participation as well as Environmental Factors (such
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27 as the physical, social, and service environment). In addition, it outlines Personal
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29 Factors (such as personality, age, culture and coping strategies).
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36 In the model overview (Figure 1), the ICF depicts a comprehensive bio-psycho-social
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38 model of health and functioning that can be used to conceptualise issues, and
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40 elucidate interactions that are influential in health care complexity at individual and
41
42 system levels. The ICF appears to be a useful tool for conceptualising and targeting
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44 interventions for patients with complex health conditions (Allan, Campbell, Guptill,
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46 Stephenson, & Campbell, 2006), assisting clinicians to think in broader, less
47
48 reductionist ways. While its direct application to clinical education and training for
49
50 complexity requires future research, the interconnectedness of the model (Figure 1)
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52 implies the need for a holistic approach to training which acknowledges the
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54 interacting dimensions of a person's life and health.
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10 To maximise holistic care and respond to complexity through healthcare education,
11 previous recommendations have included building critical thinking and reflective
12 practice, and the use of case presentations and role plays (Fraser & Greenhalgh,
13 2001). Likewise, exposure to appropriately complex case histories with multiple
14 acceptable solutions builds the capacity of health care practitioners to respond to
15 complex situations in future. Creating opportunities for health care practitioners to
16 learn from each other across professional boundaries and collectively solve complex
17 problems is beneficial and consistent with calls for greater breadth of understanding in
18 the face of complexity (de Jonge et al., 2006; Grant et al., 2011). The ICF may
19 provide an integrating model in this regard.
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34 **Conclusion**

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36 Interprofessional workplace and clinical education that is based on a comprehensive
37 bio-psycho-social model, which is responsive and relevant to dimensions of health
38 care complexity, and which facilitates critical reflection and reasoning will be vital to
39 maintaining health workforce relevance.
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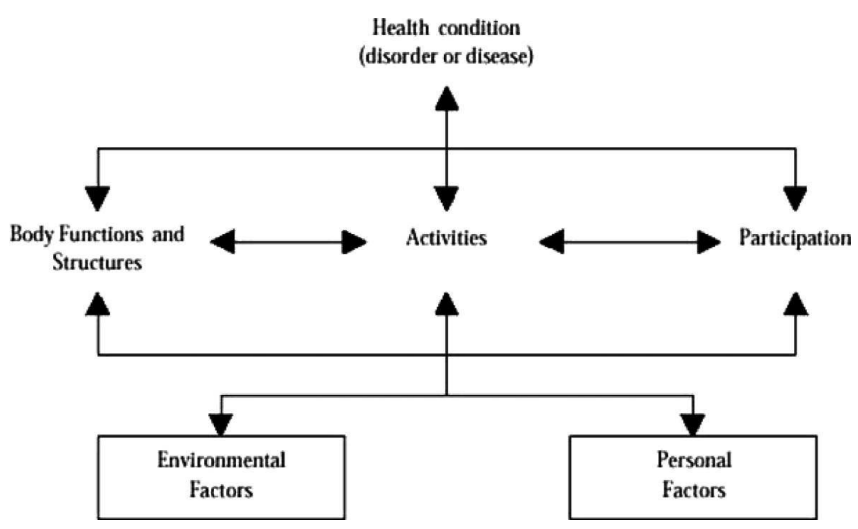


Figure1: The International Classification of Functioning, Disability and Health (ICF) model which depicts key complexity factors

Review Only