

CONFERENCE ABSTRACT

Artificial intelligence as a driver of shifting power towards patients – How could new technology enable integrated person-centered care?

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Introduction and background

Power in health and care, if we conceptualise it as access to resources and control over allocation decisions (Clegg 1989), has traditionally been held by health professionals rather than patients in receipt of care. The introduction of artificial intelligence decision-support and machine learning tools into clinical care will change these long-established power relationships. Berring & Busch (2020) cite Epstein's definition of person-centred care as conditional upon shared information, shared deliberation and a shared mind. AI tools will disrupt this relationship as the black box nature of the technology undermines health professionals understanding of the process of decision-making.

Methods

This study uses Clegg's circuits of power to explore the potential effect of artificial intelligence and machine learning on the relationships between health and care professionals and citizens and ultimately on the delivery of person-centred care. It is an empirically informed exploration of one current AI application in healthcare (using AI to read breast mammograms) resulting in the formulation of a theory about how AI may impact the delivery of person-centred care.

Results

Clegg's circuits of power model conceptualises power at three levels, episodic, dispositional and facilitative. Episodic power is causal and acts at the level of the individual or group. Dispositional power sets out the social structure and rules within which episodic power is enacted and facilitative power is the system within which collective goals are achieved.

Analysis of survey and focus group data showed that 64% of health professionals and 60% women trust everyday AI applications such as virtual assistants but only 41% of health professionals think that AI can be trusted in the same way as skilled professionals to identify anomalies and 46% of women would be happy if AI was used to read mammograms. Qualitative exploration of these perceptions show that health professionals are concerned that their clinical accountability cannot be sustained if AI is used to make decisions, whereas women want to know when and how AI is being used in their screening and possible diagnosis.

Discussion

Our models of person-centred integrated care are based on the 'rules' of (1) understanding what is important to the person, (2) making shared decisions and (3) identifying and delivering shared

Lennox-Chhugani: Artificial intelligence as a driver of shifting power towards patients – How could new technology enable integrated person-centered care?

goals (The Health Foundation, 2014). AI and ML has the potential to disrupt the social rules of healthcare provision at the dispositional level. The black-box nature of AI means that the 'rules' which have governed the patient / health professional relationship for so long, where the health professional has knowledge and a framework for decision-making unavailable to the patient, no longer hold true.

Conclusion

This paper sets out some early conceptual thinking in relation to the effect of AI and ML on the practice of person-centered integrated care.

References

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