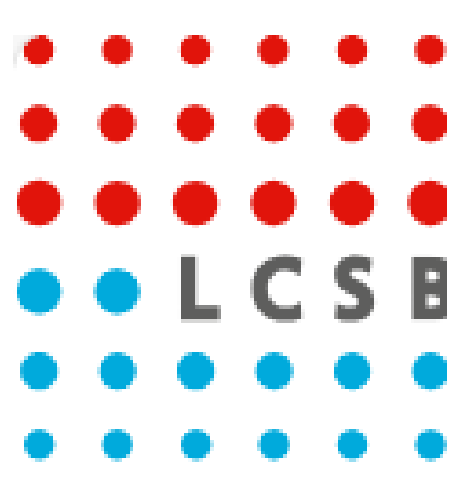


ACHIEVING VALUE FROM DIGITAL MEDICAL DEVICES AND RELATED TECHNOLOGIES FOR PATIENTS WITH CHRONIC DISEASES

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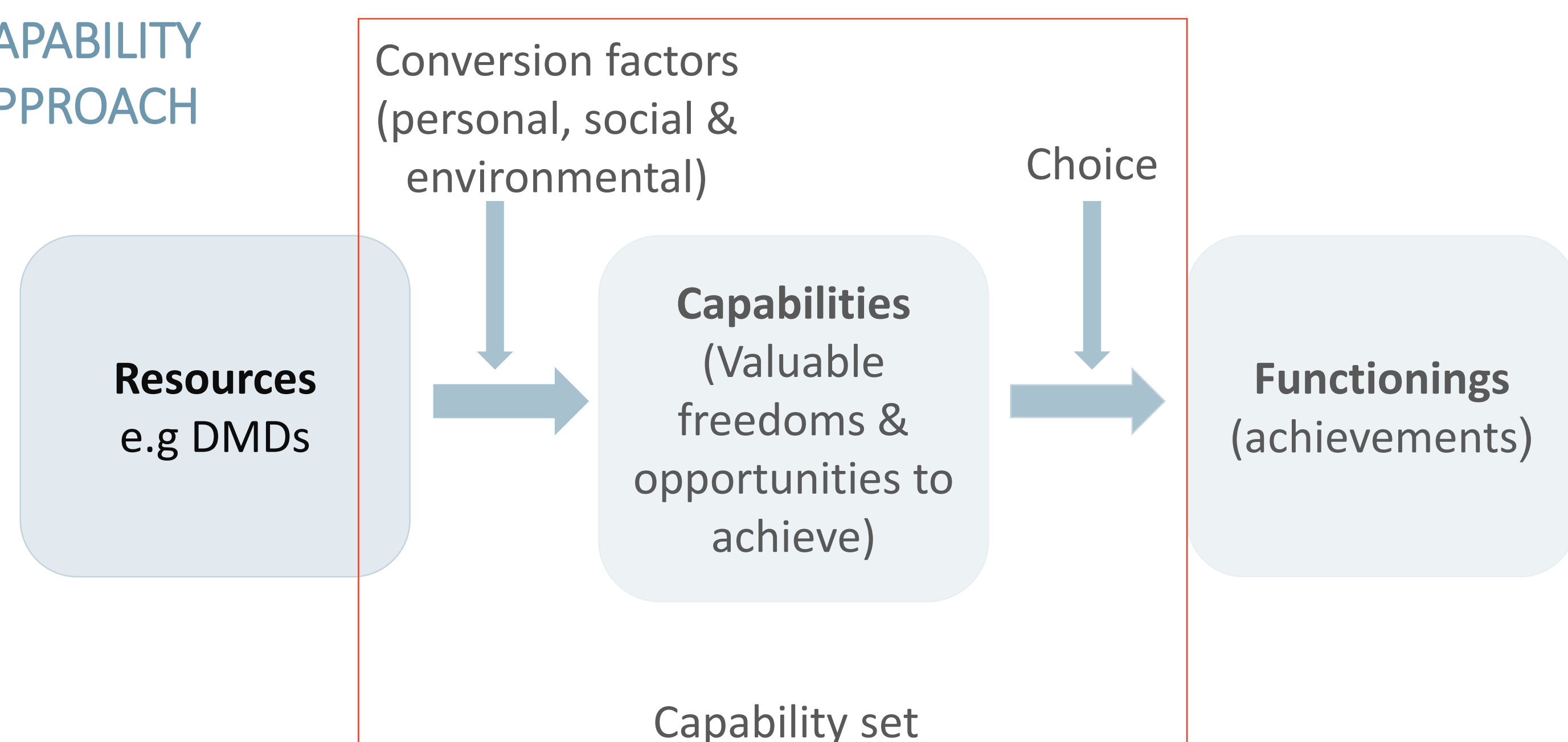
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INTRODUCTION

- Patient empowerment (PE) is known to improve patient outcomes, patient satisfaction, and the effectiveness of healthcare¹
- Digital Medical Devices (DMDs: patient-centered Digital health technologies) contribute to PE by keeping patients informed, involved and engaged in their own health²
- Evidence is needed to understand how DMDs enhance PE in patients with chronic condition
- This study uses Sen's capability approach³ to understand how DMDs empower patients

CAPABILITY APPROACH



OBJECTIVES

- To understand and conceptualize the process of PE in relation to DMDs by identifying and mapping different capabilities, DMDs resources and conversion factors that contribute to PE.

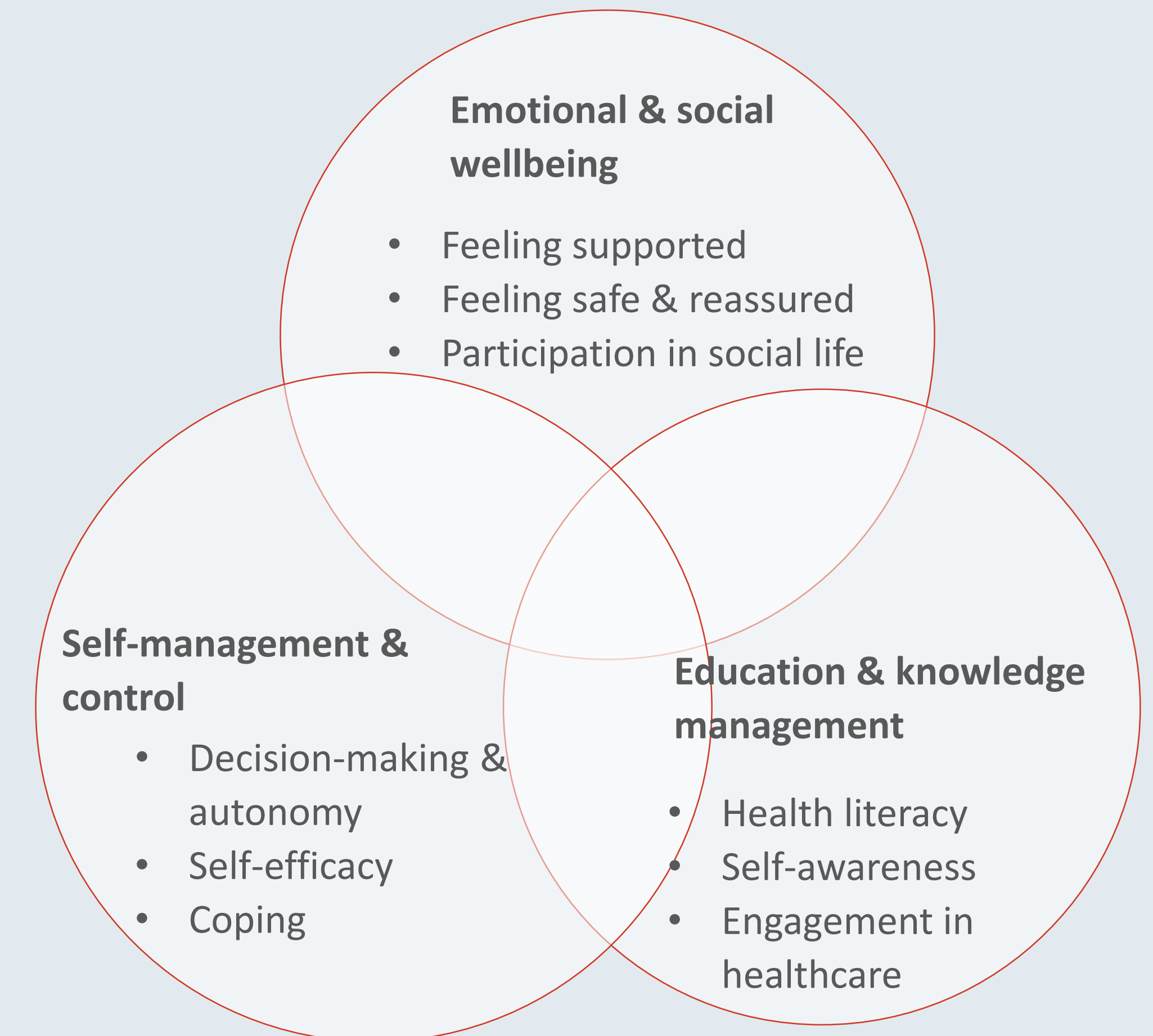
METHODS: SCOPING REVIEW

- **Population:** Adult patients with cardiovascular diseases, diabetes, chronic respiratory disease, cancer and neurodegenerative diseases
- **Concept:** PE through the use of DMDs with patient facing features
- **Context:** Healthcare setting with focus on patient perspective
- **Search:** PubMed, Scopus and Web of science from December 2013 to April 2024
- **Total:** 41 articles analyzed using thematic analysis

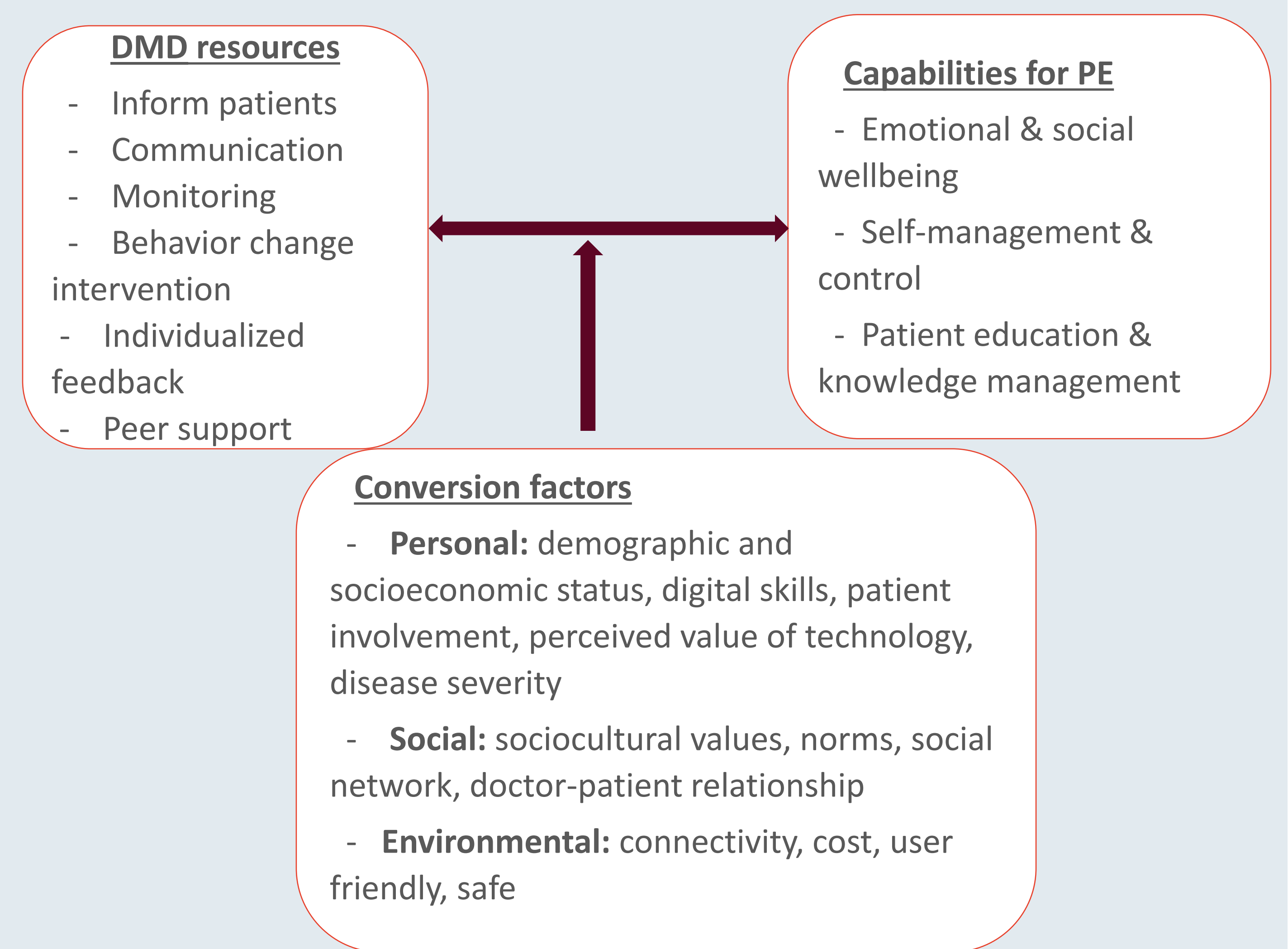
References: ¹Scott Duncan T, Engström J, Riggare S, Hägglund M, Koch S. Meeting the burden of self-management: qualitative study investigating the empowering behaviors of patients and informal caregivers. *Journal of Participatory Medicine*. 2022;14(1):e39174, ²Stepanian N, Larsen MH, Mendelsohn JB, Mariussen KL, Heggdal K. Empowerment interventions designed for persons living with chronic disease—a systematic review and meta-analysis of the components and efficacy of format on patient-reported outcomes. *BMC health services research*. 2023;23(1):911, ³Robeyns I. The capability approach: a theoretical survey. *Journal of human development*. 2005;6(1):93-117; Paccoud I, Leist A., Schwaninger I., van-Kessel R., Klucken J. (2024) Socio-ethical considerations in digital medicine: advancing equity, diversity and inclusion. *Digital Health (in press)*

RESULTS

Three core interconnected capabilities for PE empowerment were identified



Relationship between DMDs and their functional components as resources, capabilities and conversion factors



DISCUSSION & CONCLUSION

- We identified 3 core capabilities and outlined the process of PE by identifying various conversion factors that patients need to transform DMD resources and achieve those capabilities
- Provide researchers with a clear framework for assessing various components of PE as well as its process in the digital health context
- It could also support the developers of technologies to design DMDs that effectively support PE

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