

Challenges associated with learning to perform transvaginal ultrasound for endometriosis: does artificial intelligence have a role?

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Methodology

A global online cross-sectional survey of health professionals who perform TVUS was performed.

The survey contained a combination of multiple choice and free-text questions regarding demographics information, experience and training undertaken for eTVUS, familiarity with AI in ultrasound and feelings of participants towards how AI could help with learning and performing eTVUS.

Statistical and thematic analyses were performed.

Conclusion

Self-directed online learning is most common when learning to perform eTVUS, with access to skilled mentors challenging. However, most health professionals would use AI tools for learning eTVUS if available.



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Introduction

Performing transvaginal ultrasound to detect endometriosis (eTVUS) carries a significant learning curve. Artificial intelligence (AI) holds potential to assist with teaching ultrasound skills.

Objective

This study aimed to investigate current training health professionals undertake for eTVUS, identify barriers/ enablers encountered to performing eTVUS, and understand how AI could help.

“It [AI] could potentially assist in identifying pathology on ultrasound performed by inexperienced/untrained Sonographers in particular rural/remote locations.” Participant 430

“[AI could provide] Guidance, as from a human tutor.” Participant 31

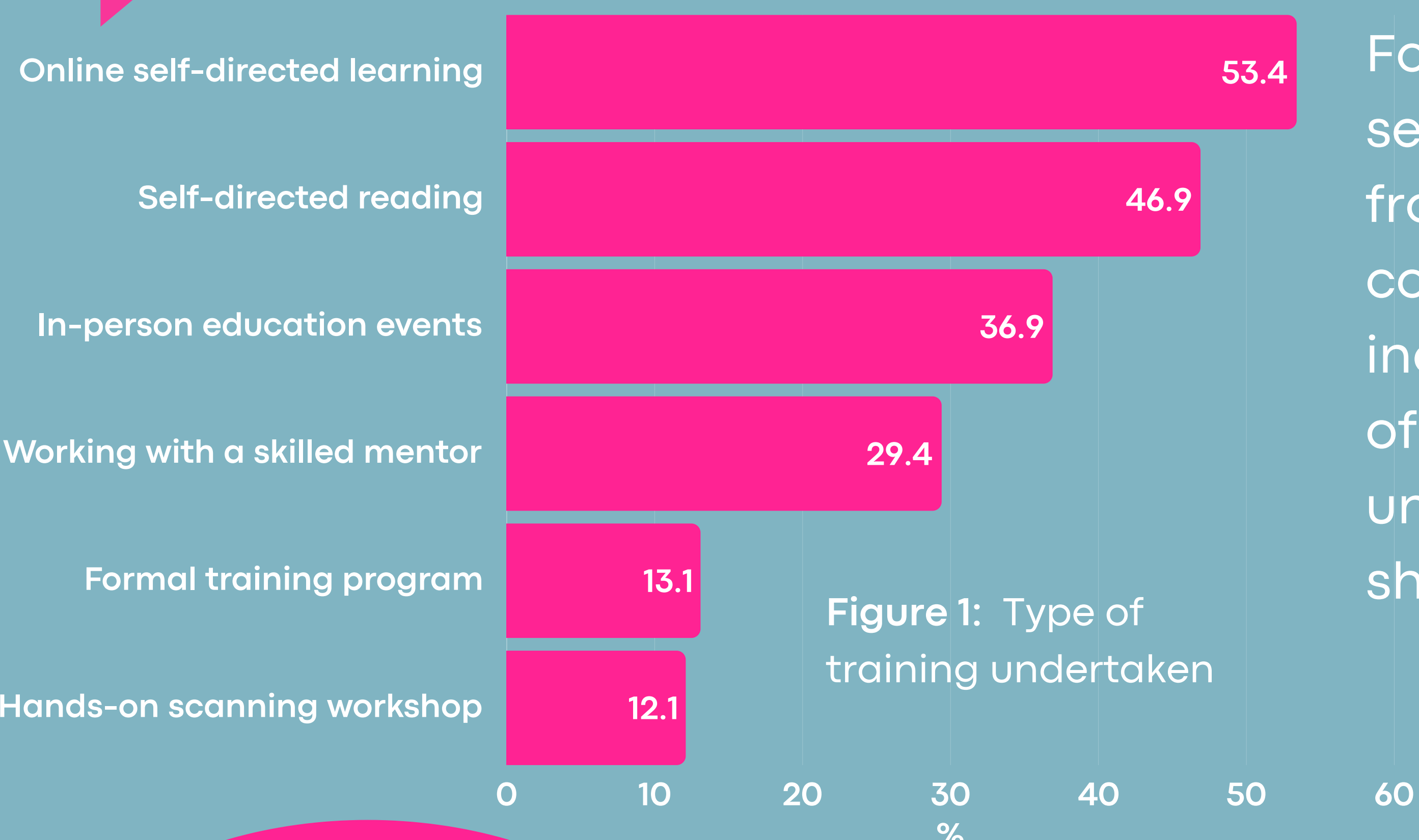


Figure 1: Type of training undertaken

Results

Four hundred and seven responses, from 33 different countries were included. The type of training being undertaken is shown in Figure 1.

Barriers

Inadequate training (37.1%)
Lack of confidence in recognising endometriosis (37.1%)
Lack of confidence in the eTVUS technique (26.1%)
Insufficient guidance from professional organisations (20.7%)

Facilitators

Education and training (58.7%)
Patient demand (52.2%)
High referral rates (44.5%)

Working with a skilled mentor was rated the most helpful training method (mean 4.49 [range, 3-5]) and the most desired, yet most difficult to access (42.3%).

64.3% of respondents would use an AI tool to assist with learning if available.

56.5% desired a tool built into an ultrasound machine and 68.3% wanted it to help recognize disease