

# Key performance indicators in the ART nursing practice – a survey study

Tonie Patrick,<sup>1</sup> Caitlin Hebert,<sup>2</sup> Patti Roberts,<sup>3</sup> Fabiana Ribeiro,<sup>4</sup> Fabricio Collares,<sup>5</sup> Allison B. Catherino,<sup>5</sup> Kelly A. Wirka<sup>5</sup>

<sup>1</sup>Colorado Center for Reproductive Medicine, Lone Tree, CO, USA

<sup>3</sup>Reproductive Science Center of the Bay Area, San Ramon, CA, USA

<sup>2</sup>Shady Grove Fertility, Rockville, MD, USA

<sup>4</sup>Randstad, Atlanta, GA, USA

<sup>5</sup>EMD Serono, Rockland, MA, USA

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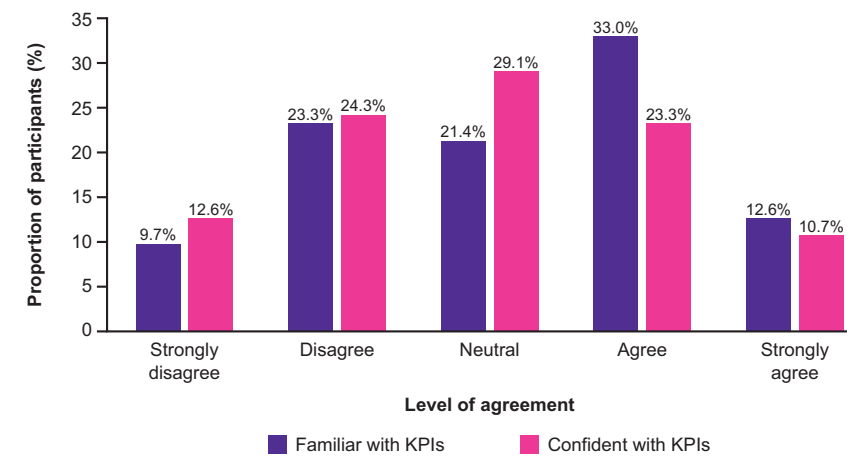
Table 1. Characteristics

	N=103
<b>Weekly time spent in direct patient care (hours), n (%)</b>	
<5	32 (31.1)
6–10	13 (12.6)
11–15	11 (10.7)
16–20	8 (7.8)
21–30	21 (20.4)
31–40	18 (17.5)
<b>Weekly time spent performing managerial or administrative tasks (hours), n (%)</b>	
<5	21 (20.4)
6–10	5 (4.9)
11–15	11 (10.7)
16–20	11 (10.7)
21–30	16 (15.5)
31–40	39 (37.9)
<b>Annual number of IVF cycles performed in the clinic where employed, n (%)</b>	
≤300	15 (14.6)
301–599	20 (19.4)
600–1199	17 (16.5)
≥1200	51 (49.5)

IVF, *in vitro* fertilization

- Less than half of the nurses were familiar with KPIs in their scope of work (45.6%; 47/103), and even fewer (34.0%; 35/103) reported being confident in their knowledge of KPIs (Figure 1)

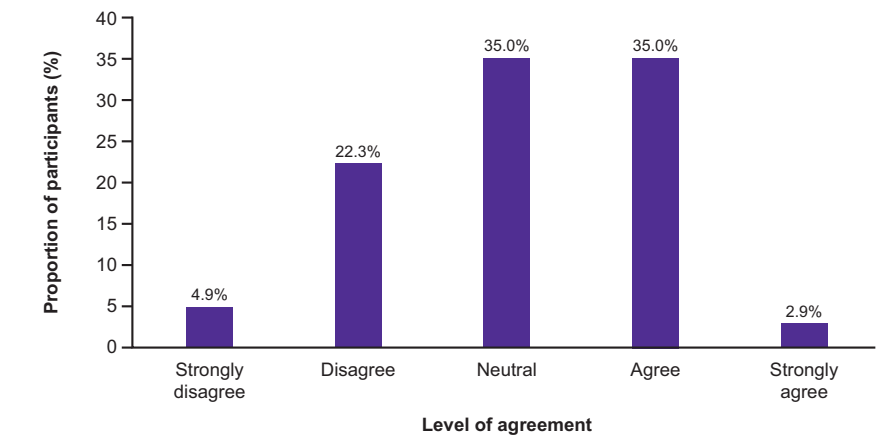
Figure 1. Level of agreement with the following statements: "I am familiar with KPIs in my scope of work" and "I am confident about my knowledge of KPIs"



KPI, key performance indicator

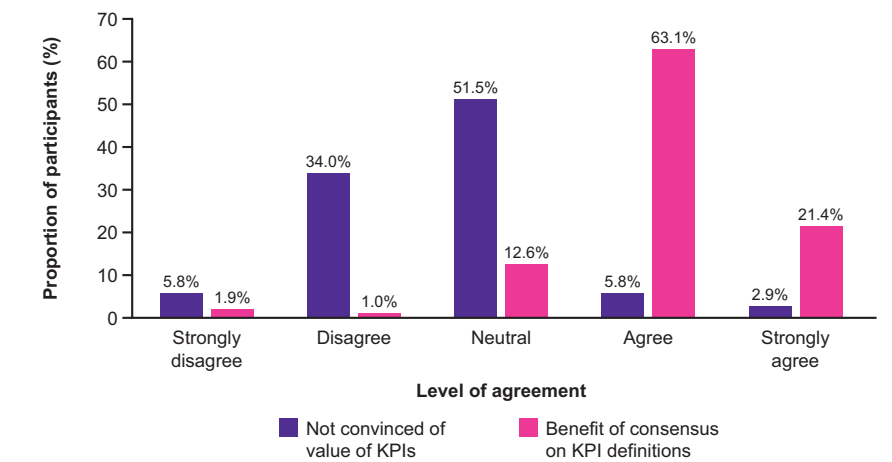
- Only 36.9% (38/103) agreed that their place of employment used KPIs to evaluate their work
- Less than half (37.9%; 39/103) reported that they were concerned that fertility nurses might not see the value of implementing KPIs (Figure 2)
- Only 8.7% (9/103) agreed or strongly agreed that they saw no value in implementing KPIs, while 39.8% (41/103) disagreed or strongly disagreed, and 51.5% (53/103) were neutral. However, 84.5% (87/103) agreed that having a consensus on appropriate KPIs for fertility nurses would be beneficial (Figure 3)
- Most respondents (76.7%; 79/103) agreed or strongly agreed that having KPIs recommended for their team would be beneficial (Figure 4)

Figure 2. Level of agreement with the following statement: "I am concerned that the fertility nursing team might not see the value of KPIs"



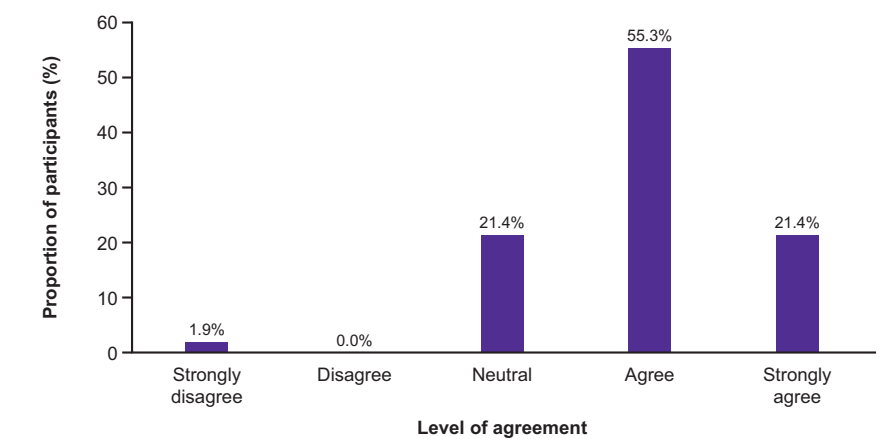
KPI, key performance indicator

Figure 3. Level of agreement with the following statements: "I am not convinced of the value of KPIs" and "it would be beneficial to have consensus on KPI definitions"



KPI, key performance indicator

Figure 4. Level of agreement with the following statement: "it would be beneficial to have KPIs recommended for the fertility nursing team"



KPI, key performance indicator

## CONCLUSIONS

- In this national survey, less than half (45.6%) of fertility nurses were familiar with the key performance indicators (KPIs) in their field, demonstrating an important knowledge gap
- Although the nurses expressed uncertainty regarding the value of KPIs for their nursing teams, most agreed that it would be beneficial to establish a KPI consensus and have recommended KPIs to use in their *in vitro* fertilization (IVF) clinics
  - This suggests that education about KPIs and establishing KPI goals for clinics would be helpful and welcomed
- Considering the benefits associated with implementing relevant KPIs in clinical practice,<sup>1,2</sup> future research should seek to gain consensus on the relevant KPIs for nursing practice in assisted reproductive technology (ART)

## BACKGROUND

- KPIs are quality indicators that reflect a standard for evaluating care domains such as efficiency, patient safety, and patient-centeredness<sup>3</sup>
  - Monitoring KPIs is critical in ensuring high-quality and effective patient care
- Previous criteria for identifying KPIs in nursing and midwifery did not require them to be outcome-related (e.g., reduce infections), but focused on the patient, applicability across specialties, and specificity<sup>4</sup>
- Use of KPI data by nurses and midwives in the UK and Republic of Ireland has resulted in improvements in clinical practice<sup>1</sup>
- While ART KPIs have been described for the IVF laboratory and for monitoring ovarian stimulation,<sup>5–7</sup> there are no KPIs established for the work performed by fertility nursing teams

## OBJECTIVE

- To evaluate fertility nurses' knowledge and perspectives on KPIs applied to the work performed by fertility nursing teams

## METHODS

- This study was reviewed by the Sterling Institutional Review Board in September 2022 and was determined to be exempt
- An anonymous electronic survey was emailed to 160 fertility clinics across the USA seeking the participation of nurses in the fall of 2022
- The survey remained active for 3 weeks
- The survey took approximately 2 minutes to complete and contained 14 Likert scale-type questions
  - Response options included: "strongly disagree", "disagree", "neutral (neither agree nor disagree)", "agree", and "strongly agree"
- All analyses were descriptive
- All participants provided their consent to take part in the study

## RESULTS

- A total of 103 fertility nurses completed the survey
- A slight majority of respondents (54.4%; 56/103) reported being in a managerial position
- The percentage of nurses spending ≥21 hours per week undertaking managerial and administrative tasks was 53.4% (55/103), while 37.9% (39/103) spent ≥21 hours per week providing direct patient care (Table 1)
- Almost half of the nurses (49.5%; 51/103) worked in clinics performing ≥1200 IVF cycles/year, 16.5% (17/103) in clinics performing 600–1199 cycles/year, 19.4% (20/103) in clinics performing 301–599 cycles/year, and 14.6% (15/103) in clinics performing ≤300 cycles/year (Table 1)

Abbreviations: ART, assisted reproductive technology; IVF, *in vitro* fertilization; KPI, key performance indicator

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## DISCLOSURES

KAW, FC, and ABC are employees of EMD Serono, Rockland, MA, USA. FR is an employee of Randstad, Atlanta, GA, USA. TP, CH, and PR have nothing to disclose.

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