Virtual Morning Report: Perceived Impact on Learning and Wellbeing During the COVID-19 Pandemic

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Background
- Beginning March 2020, COVID-19 and social distancing requirements significantly reduced face-to-face teaching.
- Distance learning has since become widely adopted, but it remains unknown how well such virtual formats (e.g. Zoom) meet clinical training needs or address social isolation by holding regular interactive meetings.
- A residency-wide Virtual Morning Report (VMR) was created at the University of Hawaii Family Medicine Residency Program. The goal was to improve clinical education and serve as a forum to connect learners and educators.

Objectives
- To evaluate whether a Virtual Morning Report (VMR) improved participants’ clinical knowledge and wellbeing.
- To identify participant preferences for online vs in-person format of educational sessions.

Methods
- Our community-based residency program hosted VMR 3 times weekly featuring a 30 minute interactive, case-based discussion. Attendance was voluntary.
- Topics represented the breadth of Family Medicine and included a mix of ambulatory and inpatient cases spanning all age groups and pregnant women.
- We administered a voluntary cross-sectional anonymous online survey, developed by the authors, to all participants 9 months after implementation of the Virtual Morning Report.
- Main and secondary outcome measures were self-report of whether VMR improved medical knowledge and wellbeing and participant preferences for the future format.
- Study population included 21 family medicine residents, 11 medical students, and 5 attending physicians (N = 37). All participants attended at least one VMR.

Results

- Fig. 1 Virtual Morning Report - Impact on Overall Clinical Knowledge and Wellbeing
- Fig. 2 Virtual Morning Report - Impact on Aspects of Clinical Knowledge
- Fig. 3 Participant Preferences for Morning Report Format

Conclusions
- Nearly all students and residents reported that conducting morning report in a virtual format (VMR) improved their clinical skills when COVID-19 restrictions reduced in-person teaching.
- However, only 1 in 3 participants felt Virtual Morning Report moderately or significantly improved their wellbeing.
- Participants expressed a strong preference for a blended (in-person + virtual) format for future educational sessions. Zero respondents reported a preference for in-person only learning.

Discussion
- Overall. Virtual learning is here to stay as a form of clinical training. While the virtual format addresses clinical training needs, it may not be sufficient to truly reduce isolation.
- Future Actions. Although in-person interactions have increased now with vaccination and PPE, we are exploring ways VMR can better improve wellbeing by focusing 1) specifically on wellness and 2) making it even more interactive. For example:
  - Incorporating humor and fun elements, such as medical joke of the day, personal trivia, or sharing team photos.
  - Dedicating time to share gratitude and appreciations.
  - Including community attendings, alumni and other guests as a bridge to the community.
- Limitations. This study represents a single residency program and has a small sample size. However, these findings highlight how Virtual Morning Report may be adapted to other training programs at a time when distance learning is commonplace in clinical training.

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Beginning March 2020, COVID-19 and social distancing requirements significantly reduced face-to-face teaching.

Distance learning has since become widely adopted, but it remains unknown how well such virtual formats (e.g. Zoom) meet clinical training needs or address social isolation.

A residency-wide Virtual Morning Report (VMR) was created at the University of Hawaii Family Medicine Residency Program. The goal was to improve clinical education and serve as a forum to connect learners and educators.
Objectives

1. Evaluate the educational effectiveness of a virtual format for morning report.

2. Assess the impact of a virtual gathering space on wellbeing for learners and educators.

3. Identify participant preferences for online vs in-person format of educational sessions going forward.
• Our community-based residency program hosted VMR 3 times weekly featuring a 30 minute interactive, case-based discussion

• A voluntary cross-sectional anonymous online survey, developed by the authors, was distributed to participants

• Study population included 21 family medicine residents, 11 medical students, and 5 attending physicians (N = 37)

• Main and secondary outcome measures:
  • Self-report of whether VMR improved medical knowledge and wellbeing
  • Participant preference for the format of morning report
Results

Fig. 1 Virtual Morning Report - Impact on Overall Clinical Knowledge and Wellbeing

- No improvement
- Somewhat improved
- Moderately improved
- A great deal improved

- No improvement: 3%
- Somewhat improved: 16%
- Moderately improved: 28%
- A great deal improved: 14%

- No improvement: 50%
- Somewhat improved: 51%
- Moderately improved: 19%
- A great deal improved: 11%
Results

Fig. 2 Virtual Morning Report - Impact on Aspects of Clinical Knowledge

- History/exam
  - No improvement: 9%
  - Somewhat improved: 38%
  - Moderately improved: 41%
  - A great deal improved: 10%

- Generating a differential diagnosis
  - No improvement: 9%
  - Somewhat improved: 6%
  - Moderately improved: 47%
  - A great deal improved: 22%

- Appropriate work-up
  - No improvement: 6%
  - Somewhat improved: 6%
  - Moderately improved: 22%
  - A great deal improved: 65%

- Treatment
  - No improvement: 3%
  - Somewhat improved: 6%
  - Moderately improved: 25%
  - A great deal improved: 63%
Results

Fig. 3 Participant Preferences for Morning Report Format

- Blended (in-person + virtual): 78.4%
- Virtual: 21.6%
• Virtual Learning is here to stay and we must adapt to meet the educational and social needs of learners

• More intentional efforts are needed to optimize online gathering to address the social and wellbeing needs of clinicians

• Limitations of the study were small sample size and low overall morale due to the pandemic

• Best practices for a successful VMR include:
  • Developing a system to assign presenters
  • Providing tips and feedback on how to teach effectively
  • Focusing learning on key take-home points
  • Making the learning environment safe and fun
• Thank you to my co-authors, all who contributed to this project, and all who continue to contribute to our morning report, especially our wonderful residents.