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Article type : Original Article

Structuring ward rounds to enhance education

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Pullouts

As health care becomes increasingly complex we need to re-think ways we work, particularly ways rooted in historical practices.

If we ultimately believe that education should retain a place on ward rounds then we must aim to find ways to educate more effectively and efficiently.

Our framework is not intended to be prescriptive, but it provides a basic structure and principles to guide clinicians...

All consultants who used the ward round tool found it changed their practice.

Trainee doctors who experienced the use of the tool on rounds perceive benefits for learning and engagement but also for overall teamwork.

"…that framework is great for teaching but also teamwork."

Abstract

Background

Ward rounds are a fundamental part of hospital culture and teaching on rounds has a long tradition. Yet evidence points towards increasing difficulties in delivering ward round education in complex heath care settings. Drawing on the literature and gaps identified in our own hospital setting we hypothesized that a tool for structuring ward rounds could improve the educational experience on rounds without adding a time burden to already busy consultants.

Methods

We used a developmental evaluation approach to develop and evaluate a tool for improving ward round education. The tool was developed through an iterative process of reviewing and piloting in a clinical department and was evaluated against Moore's outcome levels drawing on quantitative and qualitative data. Surveys of consultants were used to quantify uptake, acceptability and usefulness of the tool. Focus groups of trainee doctors evaluated their experience of ward round education.

Findings

The majority of consultants used the tool and found it accessible, and useful to enhance education, without extending ward round time. Trainee doctors had seen the tool in use and reflected that it provided structure, focused their learning opportunities, gave clarity to the ward round agenda, and provided closure. Unintended benefits were seen for enhanced team work.

Conclusion

We present a structured tool for ward rounds incorporating education, which is acceptable to consultants, and is perceived to enhance education for trainees and to strengthen team work. Understanding its applicability in other settings, scalability and impact, and the perspective of patients would be valuable extensions of this work.

Background

Ward rounds are a fundamental part of hospital culture. Teaching on rounds is part of this tradition and the apprenticeship model is still prevalent today. (1) Rounds occupy a significant proportion of person-hours yet we rarely reflect on how time is used or whether we could be working differently. Evidence points towards ward rounds occurring increasingly away from the bedside (2), reduced teaching time (3), disconnection between learner expectations and teacher perceptions, and minimal feedback. (4) Communication, uncertainty and system issues are all constantly negotiated on rounds and frequently underlie problems with care quality, yet are rarely the focus of explicit education. (4)

Although not large in terms of quantity, the literature on ward rounds dates back more than five decades. What is striking is how fundamental issues regarding ward round education recur over that time and how few solutions, or examples of change, have been offered. What has changed is the practice environment, the complexity, use of technology, working hours and service pressures. (5) But if we ultimately believe that education should retain a place on ward rounds then we must aim to find ways to educate more effectively and efficiently.

Observational evidence links higher learner satisfaction on ward rounds with three teaching activities; patient care-related questions, real-time feedback and learner-driven topics. (5) A review of ward round literature noted relative consensus that structuring rounds could maximise learning.(7) Yet interest in how we may structure rounds often focuses on checklists for performance or quality and safety. (8)

Previous research in our context identified a need to enhance ward round education (4) and the objective of the current study was to understand how this could be done in practice through evidence-based strategies. We hypothesized that a tool for structuring ward rounds for education could improve the educational experience of both consultants (specialists) and doctors in training (post-graduate years (PGY) 2-4 - referred to as trainee doctors in the text), without adding a burden of time.

Methods

We used a developmental evaluation approach (DE) to develop and pilot a tool for improving ward round education. DE recognises the complexity of interventions and the environments into which they are implemented, and can be used when developing a potentially scalable intervention when a solution to a challenge may not be evident at the outset. (9) DE engages the targeted user of the intervention in the development process to refine the approach and optimise uptake.

We worked in the general medical department of a tertiary paediatric teaching hospital from November 2015 until June 2017. We established a working group to engage medical staff of different seniority and to provide a forum for feedback to adapt our approach over time. In addition, we undertook a literature search to identify evidence-based education strategies and educational theory to apply. The outcome of this process was a tool (Figure 1 and 2) which was refined through an iterative cycle of feedback to the working group and testing on the wards. The tool was piloted in the department between February and June 2017. It was

evaluated drawing on quantitative and qualitative data, and outcomes aligned with Moore's levels of outcomes-based continuing medical education (CME) evaluation. (10) (Figure 3).

Our implementation approach acknowledged that we could not mandate the use of tool by consultants in practice. Instead we needed to create awareness and encourage uptake through;

1. Education of consultants and trainee doctors at departmental meetings.
2. Availability of the tool online (Figure 2), smartphones and in hard copy.
3. Push email reminders to consultants.
4. Availability for face-to-face discussions

Outcomes relating to participation, satisfaction, learning and perceived competence were collected through a semi-structured survey of consultants at the completion of their ward service. Participants included all 20 inpatient consultants who were based permanently in the department during this time. Quantitative outcomes included the proportion of consultants reported to have opened the tool, used the tool or reported change in their practice. Open ended questions asked consultants to describe what they learnt, and how their practice had changed through use of the tool.

Outcomes relating to higher levels of Moore's framework (performance and educational experience of trainee doctors) were evaluated through focus groups of trainee doctors. All 24 trainees rotating through the department during a 9 month period were eligible to participate. Six focus groups comprising 20 participants were conducted by a single researcher (MM) using an interview guide which sought to understand the broader educational climate as well as the role of the ward round tool. (Table 1) After written consent, focus groups were audio-recorded and transcribed verbatim. Data from transcripts were analysed using qualitative content analysis to identify themes relating to the impact of the tool on the outcomes described above (deductively) as well as additional unintended outcomes (inductively).(11) This was done in an iterative process with themes initially identified by one researcher and then reviewed by a second.

Ethical approval was obtained from the Royal Children's Hospital Human Research Ethics Committee (Reference No: HREC 36213A).

Findings

Of 20 eligible consultants, 13 responded to our survey (response rate 65%). Of responders, 11 (83%) used the ward round tool, all of whom agreed the tool was accessible and acceptable to use, and enhanced education without taking more time.

All consultants who used the ward round tool found it changed their practice. Specific examples of change were making education explicit, setting learning opportunities, sign-posting the learning clearly, pro-actively determining roles, enabling active participation of the whole team and giving the round a structure. Consultants identified that they were more able to focus their teaching either on a particular issue or learning point, or to the level of the learner and did not feel a need to teach expansively on a large range of topics. Consultants acknowledged that it took time to change established habits and that adopting the tool was an ongoing process.

From focus group discussions it was apparent trainee doctors could see the ward round tool in use via the performance of their consultants. (Table 2) They reflected on the usefulness of providing a structure and focus for their learning opportunities on the ward round, for giving clarity to the consultant's agenda, and for closing the learning. The structure was perceived to enable clarification of roles and learning needs of the team and facilitate inclusion of students. The use of the tool had unintended consequences for teamwork and care.

Discussion

We developed and implemented a ward round tool to provide structure to education delivery on rounds, with the aim of improving the effectiveness of education and the learning experience of trainee doctors. Initial evaluation demonstrates promise. The framework is perceived to be accessible, acceptable and useful for consultants and encouraged a change in practice, without adding more time. Trainee doctors who experienced the use of the tool on rounds perceive benefits for learning and engagement but also for overall teamwork.

As health care becomes increasingly complex we need to re-think ways we work, particularly ways rooted in historical practices. Structuring ward rounds may seem like a small step. Yet rounds are steeped in assumptions. Challenging what we expect from them is critical, and not always easy. For senior clinicians it may represent changing long applied habits and beliefs and for organisations, changing culture. This takes time and conscious effort before new ways of working become routine. Our framework is not intended to be prescriptive, or to be achievable every day in busy clinical settings, but it provides a basic structure and principles

to guide clinicians on how they can optimise teaching and learning. On busy days, even if a clinician can set the agenda, set roles and provide closure learning can be enhanced.

Our study involving a single centre was necessary to understand the potential benefit and feasibility of our approach. However, we recognise that health care contexts are highly variable and our findings are limited in terms of their generalisability to other settings, and even to ward rounds in different specialties (eg surgical). Our developmental evaluation approach was necessary to allow our intended end users to help shape our tool to facilitate education on rounds. However experimental or quasi-experimental study designs in new settings are needed to provide further evidence of change in education or in ward round function following the implementation of our ward round framework. The tool is available online and we are working to embed it into our educational programs for longer term sustainability of this approach. At the same time, we need to invest in understanding the effectiveness of different knowledge translation or behaviour change strategies to optimise its uptake and impact. Furthermore, we aim to explore the patients' (and in paediatrics, the parents') view of ward rounds and refine our framework to integrate this perspective as needed. We encourage others to test our framework in different contexts. The ultimate intention should be to demonstrate that changing the way we teach and learn has potential to improve the experience of patients for whom we care.

Acknowledgements

We would like to acknowledge the clinicians in the Department of General Medicine at the Royal Children's Hospital who engaged with this work around already busy clinical commitments. We acknowledge Sean Porashemi for his development of the web-based ward round framework tool.

Funding/Support

This work was supported by the Enhancing Education Grant from the Royal Children's Hospital Foundation.

Other disclosures

None

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Figure 1. The ward round framework

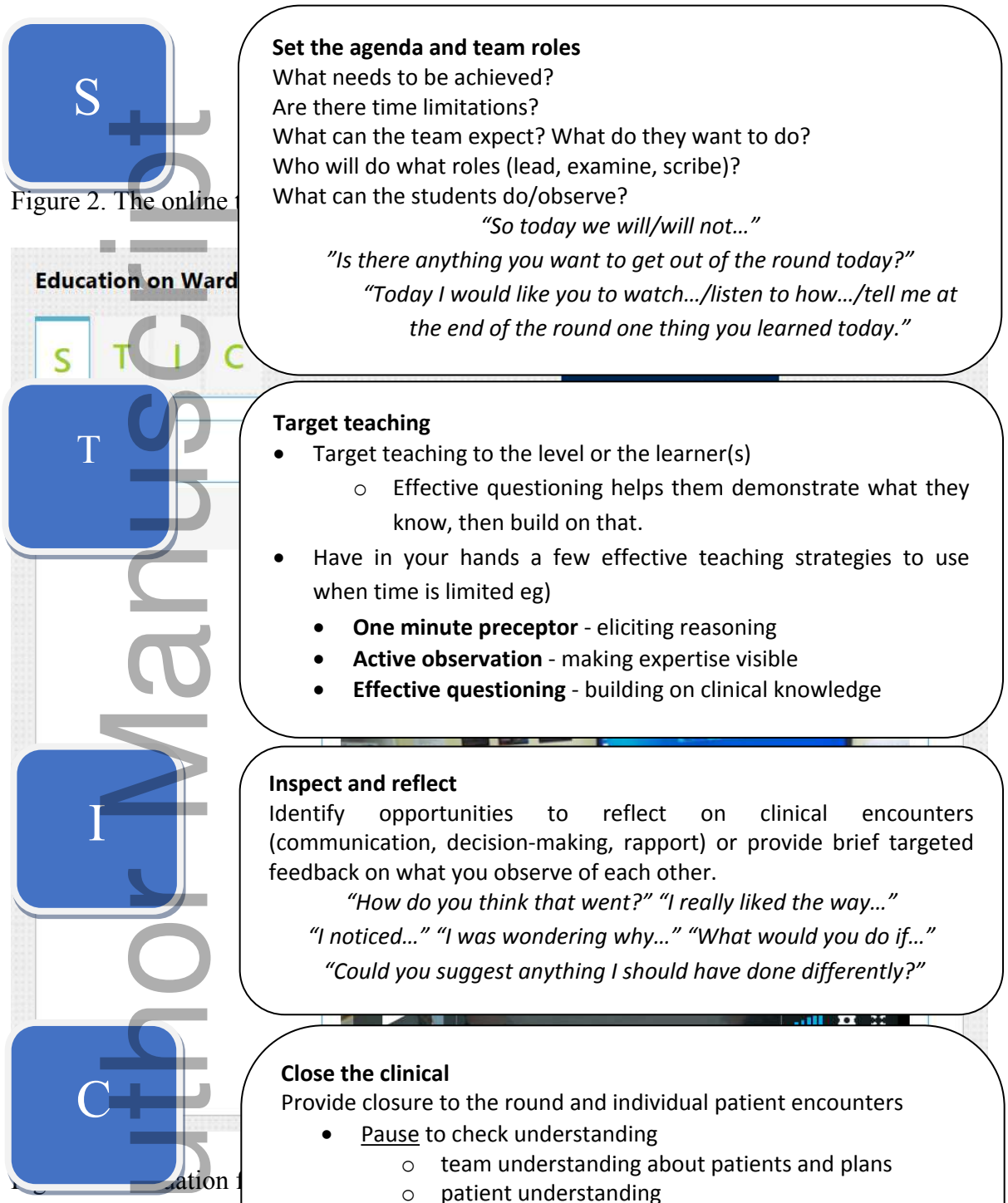

Figure 2. The online t

Education on Ward

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Participation	
Satisfaction	
Learning	
Competence	
Performance	Trainee doctor

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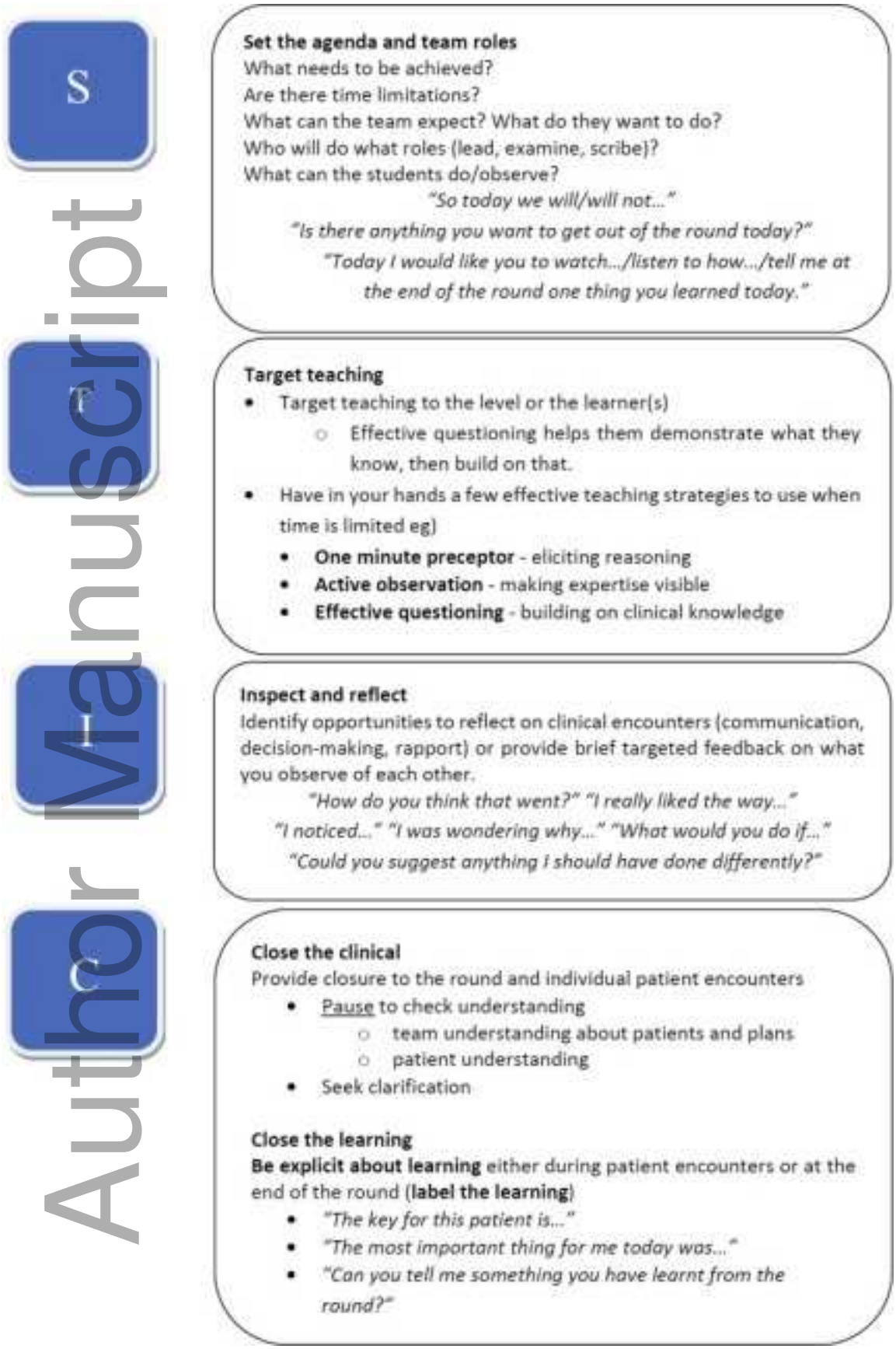
Key question	**Probe**
Could you tell us about your experiences of teaching and learning in the Department of General Medicine?	What was good? Bad? What worked well? What did not? Formal vs informal education? Meetings vs clinical activities?
What are the challenges to teaching/learning in this job?	Time Workload
Could you tell us more about your experience of education on ward rounds?	What works well? What does not? What could be done differently? Have you heard or read of STIC (ward round tool)? Is it useful?
Tell us about your experiences of feedback, both in this and previous roles	When do you get feedback? Who delivers it? Do you get enough? What areas does the feedback cover? (knowledge, communication, team work, efficiency) How useful is it? Can you give any examples? We are in the early stages of introducing STIC, but do you think this approach is useful? What do you think the barriers are to receiving feedback?
What would change about education in Department or General Medicine, or more broadly at the hospital if you could?	
Do you have anything you would like to say that we have not talked about yet?	

Table 2. Themes drawn from qualitative data in relation to planned (consultant performance and educational experience) and unintended outcomes of the framework's implementation.

Theme/Outcome	**Quotation(s)**
Consultant performance – trainee doctor perceptions of the tool in practice	*"I've had some consultants who are very pro teaching, um you know they use the acronym (STIC)…" (PGY3)* *"…some are very upfront about…not so much about what we're going to focus on…but setting up a bit of an agenda, where's everyone at, what time have we got, when can we stop to have teaching breaks"(PGY 3)* *"He'd actually be like 'alright guys let's set the agenda'…a little bit cheesy but quite deliberate, yup so he was good." (PGY2)*
Educational experience of trainee doctors	*"I think it gives things a structure, I think it sort of makes you stop and think 'I need to listen to this' or 'I should take this in', it's not something to just think...to do something else while they're talking, which often you do" (PGY 2)* *"…we discussed our goals, so even the students would pipe up and say 'we thought about this', which doesn't usually happen…" (PGY 4)* *"…and then to wrap and up close as well was also quite good…just to like make sure that everyone kind of took something away." (PGY 2)*
Unintended outcomes or consequences	*"…you know what you are working towards, everyone can then communicate and then at the end we kind of close the loop so we know what we have done and need to do… that framework is great for teaching but also teamwork." (PGY 2)*



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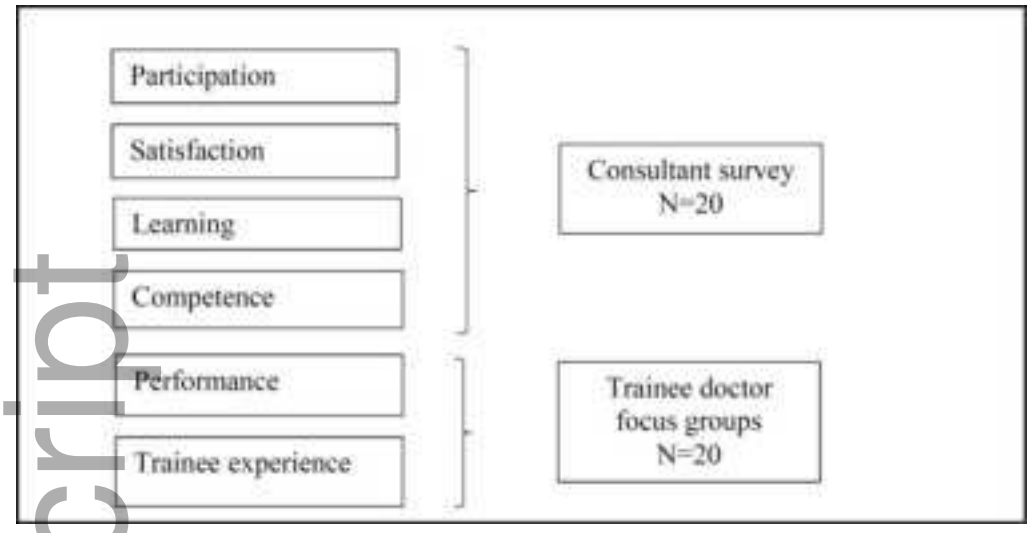

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Title:
Structuring ward rounds to enhance education

Date:
2020-06

Citation:
Gray, A. Z., Modak, M., Connell, T. & Enright, H. (2020). Structuring ward rounds to enhance education. CLINICAL TEACHER, 17 (3), pp.286-291. https://doi.org/10.1111/tct.13086.