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Community-Powered Learning: A Qualitative Analysis of Postgraduate Medical Trainee Development Through Journal Club

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ABSTRACT

Background: Journal clubs are a core feature of postgraduate medical education. They are used to teach critical appraisal skills and evidence-based medicine to postgraduate trainees. Studies have been carried out examining the purpose and goals of journal club, but with minimal input from learners. Thus, the research question was devised, ‘why do postgraduate trainees find journal clubs effective for their continuous professional development and what underlying processes facilitate their learning and engagement in these settings?’

Methods: A qualitative study was designed to capture the opinions of the learners when considering learning through journal club. Semi-structured interviews were felt to be most appropriate to allow participants to explore freely how they learn from journal club as well as the aspects of the club that support or hinder learning. Data were analysed using thematic analysis.

Results: 21 interviews were conducted within two departments in adjoining hospitals. There were 6 consultants, 9 registrars and 6 SHOs interviewed. The median (IQR) interview time was 23.5 (19.5–27.3) minutes. The themes identified were committed participation, with subthemes of habit formation and positive environment, and transformative participation, with subthemes of emerging leaders and shared experience.

Discussion/Conclusion: The themes identified from our interviews align with principles of communities of practice and legitimate peripheral participation. Regular meetings in a positive learning environment are vital. Mutual engagement and role modelling contribute hugely to trainee learning from journal club, through the development of relationships between junior and senior members in the preparation, delivery and discussion of literature.

1 | Background

Journal club (JC) is an educational meeting where healthcare professionals gather regularly to critically evaluate and discuss recent articles in the medical literature [1]. A JC session typically involves a structured review of a selected article, with a member of the club presenting a summary of the article, followed by a

group discussion. JC can encourage active participation, foster a culture of evidence-based medicine and bridge the gap between research and clinical practice [2]. Journal clubs have been a cornerstone of postgraduate medical education for over a century, dating back to Sir William Osler's initiatives at McGill and Johns Hopkins Universities [3]. They remain a core feature of postgraduate medical education today [4–6].

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Perpetual learning and continuous professional development (CPD) are paramount when working in medicine. CPD has been defined as 'the systematic maintenance, improvement, continuous acquisition and/or reinforcement of life-long knowledge, skills and competencies of health professionals' [7]. First described by Wenger in 1998, communities of practice (CoP) theory describes groups of people who share a common interest or passion and collectively learn how to improve their skills by interacting regularly [8,9]. This is often discussed in conjunction with an earlier theory described by Lave and Wenger in 1991, legitimate peripheral participation (LPP). LPP encompasses the idea that newcomers to a community become increasingly more competent over time through engagement and sponsorship, eventually becoming indistinguishable from more established members of the group [10–12].

Journal clubs, as a structured form of CPD, provide a formal setting for medical professionals to engage in discussions of research, while also functioning as a platform for informal knowledge exchange. While the formal review of literature supports individual learning goals, the collaborative discussions foster shared insights and experiential knowledge [13].

Journal club can be seen as an opportunity for medical professionals and learners to gather around the shared domain of evidence-based medicine, building a community through consistent, meaningful interactions and engaging in the practice of critically assessing and discussing medical literature [14, 15]. Journal club is often cited as an opportunity to promote the development of critical appraisal skills, with senior participation mentioned frequently throughout the literature, albeit with conflicting reports on its importance [1, 2, 14, 16–19].

However, the primary goals of journal club as assessed by faculty and postgraduate trainees can vary in priority, and there is a significant gap in understanding how postgraduate learners benefit from attending these meetings [20–22]. We know that journal clubs can support learning through regular mandatory meetings, participation and careful paper selection [23]. Journal clubs can act as specialised learning hubs where postgraduate trainees collectively learn in a social arena, where everyone shares knowledge, from novices to experts [14]. Trainees learn not just by listening but by actively participating in discussions and debates [24]. Despite numerous studies that focus on journal clubs, most research has primarily examined these platforms from an organisational or pedagogical perspective.

When examining the studies that sought to establish the role and goals of journal club, few asked trainees for their opinions [14, 20, 23]. Many studies use quantitative data to study journal club and its role in postgraduate medical education, with some studies surveying faculty only and not including trainees [16–18, 25]. In studies that have examined aspects of learning from journal club, many use closed-question surveys with no space to explore experiential evidence or individual ideas [1, 17, 18, 21, 23]. In many cases, all questions and possible answers were provided by the authors, leaving us with a research base that is curbed and restricted. The few studies that have used qualitative methods have provided some rich data on participants' experiences, but neither examined journal club across the full spectrum of its learners (consultants or faculty, and trainees or junior medical staff) [14, 26].

The above mentioned studies demonstrate the need for a qualitative review of journal club from the perspectives of the learners [20]. If we could learn more about how today's trainees learn from their journal club experience, we could better plan for journal club into the future and bring it into a new era, where group learning, discussion and collaboration are at the forefront of the meeting. With this in mind, the research question was devised 'how do journal clubs support postgraduate trainee learning?'

The objectives of this study were to explore the learning processes that occur during journal club meetings, examine the factors that promote participation among postgraduate trainees in these clubs and provide practical suggestions to enhance the effectiveness of journal clubs as a means of professional development.

2 | Methods

2.1 | Context

This study was conducted in two adjoining large university teaching hospitals in Ireland. The two journal clubs studied take place weekly; one is a well-established neonatology journal club that has been happening weekly for at least 8 years. The other is a relatively new feature of the paediatric department teaching schedule and had only been occurring regularly for approximately 2 months before the study was carried out. Both departments have approximately 9–11 senior trainees (registrars/fellows, PGY4–7) and 9–12 junior trainees (senior house officers [SHO]/residents, PGY1–3) who rotate through the respective departments every 6 to 12 months. There are approximately 7 consultants (attendings) in the neonatology department and 14 consultants in the paediatric department. Most trainees in the neonatology department complete 6 or 12 months of neonatology as part of their general paediatric training; there was one trainee who was on a dedicated neonatal training programme but would have completed their neonatal rotations as part of their general paediatric training before subspecialising.

2.2 | Study Design

Ethical approval for this study was granted by the Social Research & Ethics Committee of University College Cork (UCC). Given the ontological assumption of interpretivist methodology that there are many forms of reality, it was paramount to the integrity of the study and the validity of the results that the participant sample was broad and inclusive [27]. While the focus of this study is on postgraduate learning, considering the organisational and educational context of journal club, it was important to include all participants who routinely attend journal club, including consultants, registrars and SHOs.

Following ethical approval and with permission from departmental leaders, staff in both departments were informed about the study and invited to participate if interested. Informed interested parties consented freely to participate and signed a written consent form. Purposive sampling was utilised to ensure that

the learning population (mainly non-consultants) was appropriately represented, but there were also experienced participants who would have knowledge pertaining to journal club in many contexts [28].

Semi-structured interviews were felt to be most appropriate, allowing for private and anonymous conversations to give a rich picture of learning in journal club from many unabridged perspectives [29]. Interview topic guides were used to support interviews (Appendix 1). Sampling continued until data sufficiency was reached [30].

Following written informed consent, interviews were recorded using a digital audio recorder and transcribed by the researchers. Transcripts were subsequently anonymised using a participant number. The interview questions were developed based on guidance from semi-structured interview guides, such as that by Naz et al. [31], and knowledge from previous studies aided the development of these questions [14, 16–18, 24, 31] (see Appendix 1). To further enhance the integrity of our study, reflexivity was employed throughout the planning, interview and analysis stages [32]. The primary interviewer (A.M.) is a postgraduate trainee whose views are influenced by her participation in and experiences with journal club. B.W. is influenced by his role as a consultant and as a mentor and supervisor to many postgraduate trainees. A.W.'s views are influenced by her experience as a medical education researcher, who has examined workplace learning and professional competence in the past. Consideration was given to these influences by memoing and documenting decisions, reflecting upon them, and through regular discussions with supervisors throughout the study.

Braun and Clarke's thematic analysis was utilised to analyse the data [33]. The interviews were transcribed using Microsoft Word using the 'dictate' function and were subsequently checked for accuracy by the researchers. After the scripts were prepared, Nvivo software was used to aid in electronically generating initial codes from the data related to the research question.

The data were organised into codes and were collated by A.M. After review by A.W., themes were identified. Once the themes were chosen, they were then further defined and named before the results were collated. The themes were reviewed and discussed with a second investigator (A.W.) until consensus was reached as to the best representation of the learners' ideas presented in the interviews.

All electronic/digital data were anonymised and stored on UCC-supplied OneDrive. Hard copy consent forms were kept safe in a locked cabinet. All identifiable information was removed during the transcription process. All work thereafter was completely anonymised, with all interview transcripts identified only by study number.

3 | Results

In total, there were 6 consultants, 9 registrars and 6 SHOs interviewed (total of 21 participants), of which 10 were male and 11

were female. The years of experience ranged from 2 to 29 years, with a median (IQR) of 7 (5–11) years. There was a total of 204 years of postgraduate experience. The median (IQR) interview time was 23.5 (19.5–27.3) minutes.

There was a wide variation of experience of different areas of medicine among the group. While all were working in paediatrics at present, there were general practice (GP) trainees, neonatology trainees and paediatric trainees as well as consultants in neonatology. Collectively, they had worked in adult medical and surgical subspecialties such as gastroenterology, urology, orthopaedics and neurology, as well as many paediatric subspecialties, such as allergy, infectious diseases, neurodisability, respiratory, nephrology, metabolic medicine and endocrinology (Table 1).

There were two key themes that were identified, with two subthemes identified in each. The first theme is 'committed participation', with subthemes of habit formation and positive environment, and the second theme is 'transformative participation', with subthemes of emerging leaders and shared experience (Figure 1).

3.1 | Committed Participation

Throughout the interviews, the culture and organisation of the journal club was felt to be paramount and the key to the success of the meeting. The maintenance of good habits in relation to having the meeting at regular intervals was cited multiple times, along with the impact of the learning environment and attitudes towards the meeting within the department. These aspects evoke a sense of tradition, ceremony and regularity, which contribute hugely to the success of learning from the journal club.

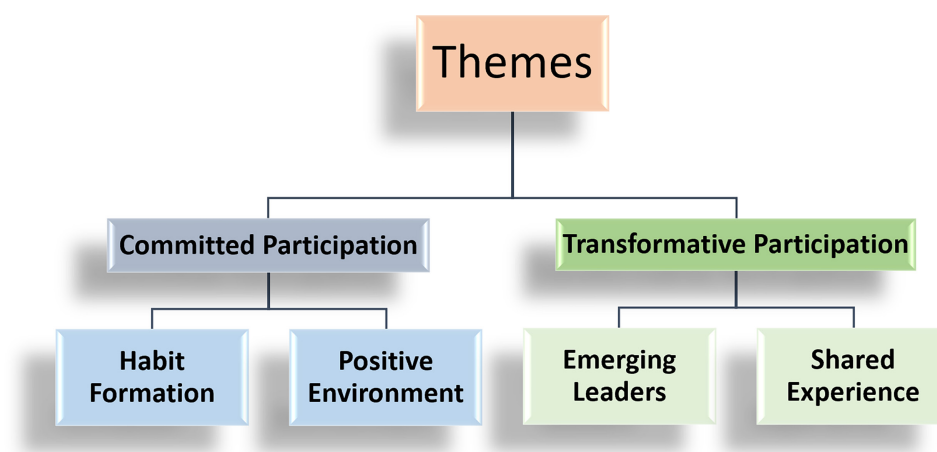
“The maintenance of good habits in relation to having the meeting at regular intervals was cited multiple times, along with the impact of the learning environment and attitudes towards the meeting within the department.”

3.1.1 | Habit Formation

The description of journal club as a staple of work life was a common thread throughout all the interviews. Some remembered the different ways in which journal clubs took form in departments over the years, with one memory of reading a paper with colleagues on a Friday morning around the hospital's staff kitchen table. No matter what the form, interviewees often mentioned the presence of routine as of utmost importance to learning: 'First of all, it happens, which I think is important' (P16). This quote, which was echoed in many interviews, suggests that it is near impossible for learning to take place without the background organisation. This initiative and effort are necessary tasks to ensure the regular meeting takes place and is well attended by all members of staff. 'It's getting the basics right. Attendance by more NCHDs and certainly attendance by senior consultants' (P18).

TABLE 1 | Participant demographics.

Participant	Role	Sex	Years of experience	Interview time (minutes)
P1	Registrar	Male	5	27.88
P2	Consultant	Male	15	23.06
P3	Registrar	Male	7	21.25
P4	Registrar	Female	7	24.41
P5	Registrar	Female	6	20.75
P6	Registrar	Female	5	23.53
P7	SHO	Male	3	17.40
P8	Registrar	Male	5	36.70
P9	Consultant	Female	11	24.46
P10	Consultant	Female	12	18.16
P11	SHO	Male	2	25.15
P12	SHO	Female	4	16.05
P13	SHO	Female	4	24.62
P14	SHO	Female	2	16.86
P15	Registrar	Female	7	19.53
P16	Consultant	Male	28	63.83
P17	Registrar	Female	9	22.53
P18	Consultant	Male	29	27.30
P19	Registrar	Male	10	30.85
P20	Consultant	Male	28	46.86
P21	SHO	Female	5	16.10

**FIGURE 1** | Themes identified by thematic analysis.

“It’s getting the basics right. Attendance by more NCHDs and certainly attendance by senior consultants”

Part of this planning often involves a listed rotation of who will present at journal club. Many trainees cited their turn to present as a chore, or an ‘impending doom!’ (P14), but followed on with

support for such a rota, as they feel they learn the most from the session(s) they present at. Some felt they might be reluctant to volunteer for such a presentation, but when faced with a given date, and the fact that everyone is taking their turn, they are more willing to take part and were glad that they did. This was also echoed by trainees who mentioned an orientation session at the beginning of a rotation, so it is clear what the expectations are for this

journal club and how one might start to approach their presentation. One trainee described that no one particularly wants to present, but the rota serves the purpose of ensuring that journal club takes place, and the pressure of presenting is shared evenly among the group: 'I do think you need a bit of pressure. It's really important in the department that it's just the rule that every week we have journal club, and the rule is not broken' (P17).

3.1.2 | Positive Environment

Many interviewees discussed how the environment influences their learning at journal club. While some mentioned the set-up of the room itself, many expanded further on the environment, not just as a physical space, but as an atmosphere. One registrar described it as 'the temperature in the room' (P3). The idea of the learning area as a space that can be warmed up or cooled down captures the perception of the learners while in the environment. The change in this atmosphere, by comments, body language and personalities, is mentioned by multiple interviewees, with some quoting negative and fearful experiences in the past: 'There have been journal clubs I have attended where I wouldn't have dared speak' (P13).

“The temperature in the room” (P3). The idea of the learning area as a space that can be warmed up or cooled down captures the perception of the learners.”

However, a positive environment allows open conversation and exploration of the topic, as well as giving trainees space to develop opinions and discuss viewpoints. Some see it as a social meeting, and an opportunity to get to know their colleagues: 'There's social aspect- I just found that really important; really good and really important to have discussions with people that you might only have ever chatted to on a ward round' (P19).

One consultant described an ideal learning environment for trainees, in their view. 'I think people should be at ease. There's a line you know, between making people uncomfortable and undermining them, which is not what you want to do. You want to encourage them' (P16). This part of the non-physical environment is impacted by the attitudes of senior staff, who, as the consultant above mentioned, are often responsible for making trainees comfortable within the meeting. When trainees do not have to worry about saying the wrong thing, being laughed at or feeling unintelligent, they can grow and learn much more from the information being presented as well as the wider learning from presentation and leadership, which are explored below.

“There's a line you know, between making people uncomfortable and undermining them, which is not what you want to do. You want to encourage them.”

3.2 | Transformative Participation

This theme describes the results of trainee's participation in journal club, moving from newcomers to more experienced

members, emerging as new leaders through shared experiences and discussion. The use of journal club in the wider learning of non-technical skills was a strong theme throughout the interviews. The first subtheme of emerging leaders describes how trainees transition from passive participants to active leaders within the journal club. It emphasises the transformative journey of trainees as they embrace a more central role in JC, develop their voices, and contribute fresh perspectives and energy. The second subtheme of shared experience highlights the indispensable role of experienced members or seniors in facilitating the growth and development of trainees: 'I think you have to have senior people around to you know, to kind of guide things a little bit. Otherwise, you have junior people presenting to each other without any major kind of progression in their learning, I think' (P10). It underscores the value of mentorship, wisdom, and support that seniors provide and the impact of senior guidance in shaping learning and growth within the journal club.

“I think you have to have senior people around to you know, to kind of guide things a little bit. Otherwise, you have junior people presenting to each other without any major kind of progression in their learning, I think.”

3.2.1 | Emerging Leaders

The rota for presenting at journal club plays a part in the organisation of the meeting, and through this, trainees are given an opportunity to present to peers and senior colleagues. This can facilitate the development of skills and building of confidence along with growth of their professional character. Many trainees described fear around presenting, especially if presenting to their senior colleagues. However, almost all mentioned that their greatest learning came from the session they presented at. The process of preparation for presenting can be very beneficial, which involves learning about the study in detail, reading background articles, studying the research methodology and even learning about the statistics. 'I think you learn a lot more when you're presenting, because of course, it's always in your best interest to know about the topic as well, because depending on your experience, there's bound to be gaps in your knowledge. You're going to want to look into it a bit more just for yourself, but also because you could be asked questions on it' (P8). This alludes to the slight fear of questioning or not performing well, which pushed people to prepare more thoroughly for the presentation.

Skills involved in presenting were often mentioned, such as interpreting and condensing the information for the audience in question along with communication skills. The development of critical analysis skills was also discussed in relation to the role of the presenter. 'Instead of copying and pasting, you interpret the journal article using a critical appraisal tool, to give you more structure and more guidance' (P10). While critical analysis should be part of both the presenter's and the audience's learning from the session, many interviewees mentioned that their skills are most developed while preparing to present. Some senior members of staff also quoted this as one of the most important parts of the presentation.

“Instead of copying and pasting, you interpret the journal article using a critical appraisal tool, to give you more structure and more guidance.”

The preparation for presenting begins days/weeks in advance, and begins with choosing the paper to be presented. Many trainees found this to be a very daunting task, as the literature can be overwhelming, both in volume and in the subject matter. ‘Picking the journal is the hardest part’ (P13). The help of a senior member of staff, often their trainer, was felt to be hugely helpful. Working with their trainer in the run up to their presentation also offered trainees the opportunity to develop their relationship with their trainer, to discuss interests and opinions while collaborating. ‘You see how somebody thinks about things. And you see the time and effort that they’re given something, because that translates into everything else that they do’ (P18).

This relationship is further developed during and after the presentation itself. It offers an opportunity for the trainee to receive feedback on their presentation and knowledge, and can sometimes be left disappointed if they do not get that feedback from their individual mentor. One of the consultants remembered this well. ‘For the individual on the day, it means everything to do a good presentation. Sure, I was there once! It’s not that long ago. We spent a week preparing for journal club, and then it’s over in 20 minutes. And if your consultant doesn’t turn up, it’s like ... ahhhhh ... I put a week into that!’ (P18).

3.2.2 | Shared Experience

The presence and participation of senior members of staff was quoted by many interviewees as having direct impact on their learning. As well as their guidance into the choosing of the paper, the presence of multiple senior staff at the journal club session can hugely improve learning for both presenters and attendees alike. ‘If you know that all your bosses and colleagues are going to be there, the shame of underperforming would encourage you to try harder’ (P17). The quality of presentations was felt to improve when there is a high level of senior attendance, and this not only improves what the presenter learns, but also what the attendees learn about the paper as well as how to present in the future. The importance of experience in interpretation of papers was felt to be almost essential to the running of an effective journal club, and even more so in the context of the department in which the journal club is taking place.

More junior trainees often mentioned how the senior trainees influence their learning. In contrast to consultants, senior trainees are felt to be more approachable and their skills more attainable or within reach. ‘There’s a lot of registrars in particular that I look up to. I want to be them when I grow up on the wards! And you see how they present; they’ve had a lot of experience with it. You see the things that they’ve learned over the years on how to present or what engages people. I do think it has a really big influence on me; I’m like, oh, that’s something I really like, or I really like how they did that, or that’s something I want to try because they’re doing it and they’re so

comfortable now. And it’s something I’m not comfortable with and I want to be’ (P14).

In many cases, the presence of senior staff was mentioned in relation to the discussion at the end of the presentation. All interviewees mentioned this as a typical part of each journal club that they had attended. This can be formal or informal depending on the setting but was quoted multiple times as the most helpful part of the session for learning. More than one interviewee described a discussion without senior input as ‘the blind leading the blind’ (P3). The use of the discussion to talk about the topic at hand and how this applies to the population being treated in the department was mentioned by most of the interviewees as a paramount part of the session. Many also mentioned that observing or indeed joining a healthy debate can demonstrate positive collegial relationships, despite occasional disagreement. ‘It’s a non-confrontational platform for trainees to see differences of opinion and how people can be colleagues and disagree and ultimately come to a decision about changing practice or not’ (P16). Having a part in this discussion made more junior members of staff feel involved in the shared planning and decision making that may come from the journal club forum.

4 | Discussion

The objective of the study was to outline how journal clubs support trainee learning. This study has gained new and in-depth insights into the role of journal club in postgraduate learning through detailed interviews with the learners themselves. The results offer a cohesive, learner-focused view of the role of journal clubs in contemporary postgraduate medical education, addressing a unique research question that has not been explored in this way before. It is clear from the interviews that the involvement of both trainees and senior staff in a shared experience is a common thread running through all the ideas presented within the themes of committed and transformative participation, reflecting the communities of practice and legitimate peripheral participation theories [11]. Although they did not inform the study design or the research question, the ideas of the interviewees are well aligned with these learning theories, and they offer a useful lens through which to view the results of our study.

Previous studies and observations, particularly related to communities of practice, have shown that a positive culture can significantly influence the progression of learning [34]. This is affirmed in multiple interviews, especially by participant 16, who describes journal club as a ‘non-confrontational platform’. This quote encapsulates the essence of journal club: inclusive and relaxed yet providing an opportunity or platform to teach, discuss and learn. Creating a safe space where learners feel a sense of belonging is a fundamental aspect of communities of practice theory [34,35]. Furthermore, a positive environment and open culture are essential foundations for the progress of legitimate peripheral participation (LPP). In the context of journal club, LPP can represent trainees evolving from novices to more central participants over time. The creation of a positive culture can help peripheral participants in moving towards full participation [11].

Involving trainees in leading a presentation is a key step towards becoming a part of the journal club community and the wider department it represents. This involvement includes selecting the paper with a senior member of staff, leading the presentation, partaking in the discussion, and receiving feedback from a trainer after the presentation. Such interactions show mutual engagement, an essential aspect of Communities of Practice (CoP), fostering knowledge sharing and trust among individuals of varying expertise working together towards a shared goal [36]. This also promotes role modelling behaviour, which is crucial in postgraduate medical training [11,34,37]. Trainees observe the behaviour of senior staff presenting and analysing literature, especially during post-presentation discussions. These discussions, usually led by senior staff, demonstrate how people can debate and disagree while still collaborating constructively, offering a diverse learning experience as role modelling is integrated into their professional development [37].

The interactions between junior and senior members within journal club can help shape an individual's professional identity (PI) [36]. Developing a PI involves personal, collective and relational identity within a CoP, a key goal in medical education [12]. SHOs expressed a desire for dialogue not only with consultants but also with registrars, with whom they felt more connected due to shared experiences and knowledge levels [22]. This reflects the tenets of near-peer learning, a well-established mechanism where more senior trainees teach junior colleagues. In the context of journal club, more senior trainees can guide junior trainees in navigating their first journal club presentations [38]. For SHOs, presenting at journal club can be particularly beneficial, as it helps them transition from being peripheral members to integral parts of the community [11,37,39].

Both trainees and consultants highlighted the importance of open discussions in the journal club. They noted that learning is hindered when discussions are dominated by a single person or when questions are perceived as personal attacks. Such instances contradict the core principles of a community of practice, where engagement should be mutual and collaborative [14]. The balance between encouragement and challenging individuals without causing discomfort is crucial for effective learning, as illustrated in our interviews. When this balance is achieved, learning can thrive [40].

There are numerous steps that could be taken based on the insights gained from trainees and trainers during the interviews, and these are highlighted in Box 1. Simple actions around organisation, expectation-setting and linking junior and senior staff are easier to implement. However, the more abstract concepts of culture and atmosphere may require further consideration and collective discussion within a department [34].

There are several limitations to this study. The first is that the population of interviewees was limited to two departments, with 19 of the interviewees from a single department. Although effort was made to encourage people to draw on all previous experiences from journal club, the interviewees were undoubtedly influenced by their current journal club as this is most recent in their mind. The more established journal club was generally regarded as well organised and open cultured, which may have led people to think less about previous negative or narrowed experiences.

BOX 1 | Recommendations for clinical teachers.

1. Give an introductory session at the beginning of a new rotation, where trainees are given advice on resources, expectations, and planning for their journal club presentation.
2. Consider the use of a buddy system, where a registrar is paired with an SHO to aid them in picking an appropriate article and planning their presentation. This offers an opportunity for SHOs to liaise with a more relatable member of the community who is closer to them in the peripheries of the group.
3. Gather commitment from senior staff to cultivate a constant culture, atmosphere, participation, and encouragement to ensure a consistent approach, regardless of the trainer or staff present at the meeting.
4. Journal club should feature on the agenda of any meeting about departmental teaching to retain its place in people's minds and encourage engagement from senior staff.
5. Hold regular, well-organised meetings with a diverse range of presenters from all levels of trainees. A regular meeting day and time may help staff to build a habit of consistent attendance and engagement.

Future directions could include interviews with members of journal clubs from numerous hospitals and departments to gain even more varied insights into learning from journal club. This may also serve to determine whether the identified themes within this study are universally applicable or are confined to particular fields, which could be achieved by undertaking a comparative analysis of journal clubs across disparate disciplines or medical specialties.

Interests for future research would also include a longitudinal study that traces the same cohort of trainees over an extended timeframe. Much has been learned about role modelling through journal club in this study, so a focused inquiry into the attributes and conduct of effective role models within the journal club environment could contribute to the design of journal clubs and perhaps mentorship programmes.

5 | Conclusion

Semi-structured interviews with members of the journal club have offered both reinforcement of established ideas as well as new insights into postgraduate learning from journal club. The themes identified from our interviews align with many principles of communities of practice and legitimate peripheral participation, along with theory on learning environment and role modelling. Regular meetings in a positive learning environment are vital. Mutual engagement in a shared experience contributes hugely to trainee learning from the journal club, through the development of relationships between junior and senior members in the preparation, delivery, and discussion of literature.

Author Contributions

Anne L. Murray: conceptualization, investigation, writing – original draft, methodology, formal analysis, project administration, data

curation, writing – review and editing. **Brian H. Walsh:** writing – review and editing, supervision, project administration, investigation. **Anél Wiese:** supervision, conceptualization, methodology, writing – review and editing, formal analysis, project administration.

Consent

Written informed consent was obtained from all participants in relation to their participation in the study.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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Appendix 1

Interview Guide

Section 1: Initiate interview; Help participant to start talking about their experience.

- What is your current title/role?
- How many postgraduate years have you been working in the clinical environment?
- What areas of medicine/surgery have you worked in?
- What is your exposure to journal club in your career thus far?
- What structure does your current journal club have? How are learning topics chosen and presented?
- How do you learn from journal club?

Section 2: Five to 10 questions that directly relate to the information the researcher wants to know.

- What do you think is the purpose/goal of journal club?
- What do you think is helpful in achieving these goals?
- What kind of skills/knowledge do you gain from journal club?
- How do you prepare for journal club?
- Do you think senior participation has a big impact on your learning?
- Can you think of any things that could be done to improve your learning from journal club?

Section 3. Specific questions that ask for more details about particular aspects of the core questions

- What do you think of the current format of your journal club at your workplace?
- Would you have any ideas on how to restructure journal club?

Section 4. Questions for consultants in relation to trainees learning.

- How do you think your presence at journal club influences learning?
- What do you feel is the role of journal club in trainee's learning?

Section 5: Impact of journal club

- How do you feel journal club impacts your practice?

Section 6. Questions that arise during the interview based on participant responses.