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Institutional ethnography – a primer

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ABSTRACT This review introduces a qualitative methodology called institutional ethnography (IE) to healthcare professionals interested in studying complex social healthcare systems. We provide the historical context in which IE was developed, and explain the principles and terminology in IE for the novice researcher. Through the use of worked examples, the reader will be able to appreciate how IE can be used to approach research questions in the healthcare system that other methods would be unable to answer. We show how IE and qualitative research methods maintain quality and rigour in research findings. We hope to demonstrate to healthcare professionals and researchers that healthcare systems can be analysed as social organisations, and IE may be used to identify and understand how higher-level processes and policies affect day-to-day clinical work. This understanding may allow the formulation and implementation of actionable improvements to solve problems on the ground.

Keywords: institutional ethnography, interprofessional research, medical education, methodology, qualitative research

INTRODUCTION

Research can be conducted using either inductive or deductive approaches. While inductive research aims to develop a theory, deductive research focuses on testing an existing theory.[1] Much of biomedical science research is conducted using the deductive approach through basic, applied, and *in vitro* or *in vivo* research and clinical trials.

But what if the research aim was not to assess the relative efficacy and safety of new versus old treatments in a randomised controlled trial? What if the goal was, instead, to explore the reasons for rising tensions between the Emergency Department (ED) and General Internal Medicine (GIM) physicians in a particular hospital?[2] In such an instance, it would seem that methods such as randomisation and controlling for confounding factors might not be as appropriate for such a research question, as it deals with complex social phenomena rather than cells, tissues or pathogens. Instead, an inductive approach using qualitative research methods to explore processes, phenomena and settings would be more appropriate,[3] as healthcare systems are, after all, complex social organisations where power, inequality, conflict, competition and collaboration exist.[4,5] These realities do not lend themselves easily to deductive approaches measuring discrete variables, but they are important considerations, as social relations and interactions in healthcare organisations impact the outcome and cost of patient care.[3]

Similar to how a randomised controlled trial might assess the efficacy of a new drug, qualitative research can explicate social phenomena within healthcare settings that impact patients' quality of life, such as how palliative care teamwork might affect the quality of life of patients receiving palliative care.[6] Qualitative research findings may challenge existing perspectives and, therefore, could offer healthcare professionals (HCPs) and managers new and valuable insights. For example, through qualitative inquiry, Carter et al discovered that healthcare quality collaboratives are not all about collaboration – free riding and competition also abound.[7] Similarly, Knowles et al found that physical co-location of different HCPs does not automatically make them work together better or lead to better care.[8]

This review focuses on a qualitative methodology called institutional ethnography (IE). It is meant for HCPs who are novice qualitative researchers interested in topics that include but are not limited to medical education and interprofessional collaboration. We cover what IE is, why it matters and how to apply it, using examples to illustrate key points.

WHAT IS INSTITUTIONAL ETHNOGRAPHY?

IE seeks to understand and capture, in detail, actual work processes performed by members of the organisation, and then trace how these work processes are coordinated at a higher level by policies, protocols, standards, competency frameworks and social norms. People may or may not be aware of these higher-level influences on their work. Of interest to an IE researcher is the dissonance between what institutions think people ought to do and what individuals are actually doing on the ground. Being able to identify what has been lost when people try to translate policies and what could be done to rectify the situation is the unique value afforded by IE.[9-11]

IE is not simply ethnography or focused ethnography[12] conducted in a social organisation such as a family, a school or a healthcare system. Similar to ethnography, IE is committed to 'careful descriptive research', a stance that is characteristic of ethnography. IE differs from ethnography in its goal. The overall goal of IE is to understand how the institutional arrangements of a society expressed in textual forms – such as government policies and organisational directives – affect the everyday work

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Correspondence: Dr Kevin Tan, Senior Consultant, Department of Neurology, National Neuroscience Institute, 11 Jalan Tan Tock Seng, Singapore 308433. kevin.tan@singhealth.com.sg

experiences of people.[13] This goal is clearly different from that of ethnography, whose goal is to delineate the cultural context in which a specific social behaviour takes place and makes sense.[14] For example, to understand the barriers to interprofessional collaboration in a healthcare practice, ethnographers examine what the term interprofessional collaboration means to different HCPs involved, how they define their roles in the collaboration vis-à-vis the roles of others, how they interact with others and how they interpret the actions of others. By contrast, institutional ethnographers start with a specific problem experienced by one group of HCPs in the course of collaboration with others (e.g. conflicting role expectations from other professionals and from the head of their own professional group). They then trace the causes of these problems to higher levels of institutional arrangements such as reporting structure and key performance indicators set for this group in the organisation that may impede effective interprofessional collaboration. As such, while ethnographic research starts with individual actors and ends its analysis at the individual level, institutional ethnographic research starts with individual actors but ends its analysis at the institutional level. Also, unlike ethnography, which does not have a unifying theme across studies of different cultures, each account of IE adds to a cumulative body of knowledge on how larger social institutions of a society enter into and shape the everyday work experiences of people in that society.[15] For example, if one IE study reveals reporting structure and key performance indicators set by the organisation as two significant institutional forces hindering interprofessional collaboration, while another IE study teases out the influences of more extended dimensions of institutional arrangements such as national healthcare policies, the knowledge generated by each study helps to render more visible the institutional forces governing individual experiences of interprofessional collaboration.

IE's focus on the everyday work experiences of people is a result of its theoretical affiliation with Marxist historical materialism, which argues that the most important social relationship is the relationship of production, which is work.[16] What then defines work? It is useful to take a step back and note that IE's definition of work is broader than Marx's original definition of the concept as wage labour. Besides paid employment, institutional ethnographers also consider unofficial/unpaid activities as work, so long as individuals take time and effort to engage in them.[11,15,17] Examples of IE-defined work include a mother attending school meetings to discuss her child's access to disability support,[17] or the time patients spend waiting for test results at hospitals or clinics.[11]

Given IE's focus on everyday work processes, the research question does not arise from extant literature.[11] Instead, it comes from the dissonance between what a researcher observes to be happening in real life and what authoritative knowledge claims is happening or should be happening.[10,11] This dissonance is called a 'disjuncture' (Table I). When the disjuncture causes a problem from the 'standpoints' (i.e. social positions) of particular individuals, it is called a 'problematic', which is equivalent to a conventional research problem.[10,11] In essence, a problematic points to the social experiences that people encounter as troubling or difficult.[18]

Table I. Glossary of technical terms used in institutional ethnography (IE).

IE term	Explanation
Disjuncture	Disjuncture refers to the dissonance between people's experiences of the world and the authoritative representations of these experiences.[10,11,15,18]
Explicate	To explicate is to describe the workings of a process that is hard to uncover or obscure.[18]
Problematic	The term problematic points to problems, tensions and contradictions that arise in the relations between people and how society is organised.[18] IE researchers identify a problematic only after they are immersed in the field and have talked with people about the social experiences that individuals find troubling or difficult.[18]
Ruling relations	IE propounds that contemporary society is governed by institutions and organisations through texts. These texts spell out ('ruling') how individuals should work together ('relations').[10,32]
Standpoint	Standpoint is a social position of a particular group of people. All IE studies begin from the standpoint of a particular group of people.[18]
Texts	In IE, texts refer to documents (policies, protocols, standards and competency frameworks) in spoken, written or graphic forms. Smith propounds that much of contemporary life is organised by texts that mediate people's everyday activities at two levels. On a day-to-day basis, people activate local-level texts, such as healthcare staff writing notes about patients. In turn, these texts are regulated by higher-level extra-local texts, such as clinical guidelines set by health ministries.[19,33] According to Smith, texts are not neutral statements of facts but are embedded in the power relations of a society. They are the medium for social institutions of administration, management or professional authorities to organise and regulate individual behaviours. She refers to this text-mediated macro-level regulation of micro-level individual behaviour as discourse.[34,35]
Work	The conventional understanding of work refers to paid employment. However, IE's definition of work is broader than usual and also refers to unpaid activities. As long as individuals take time and effort to engage in these activities, it is considered work.[11]

Once a problematic has been identified, IE researchers begin by iteratively collecting data describing the individuals' standpoint, before broadening data collection to include their colleagues and remote collaborators.[10,11] Data collection methods include observations, interviews and focus group discussions (FGDs), along with identification of 'local' and 'extra-local' texts that coordinate the individuals' work processes.[9-11] The term 'texts' refers to documents in spoken, written or graphic forms, such as policies, protocols, standards and competency frameworks.[19] Local texts refer to documents generated and used

by individuals in their everyday work, for instance, healthcare staff writing notes about patients. Extra-local texts refer to documents disseminated from authorities, such as clinical guidelines set by the health ministry.

Data analysis involves describing in detail the work processes of the individuals studied and tracing their everyday activities to extra-local texts to explicate the ruling relations that organise the work they do.[17] To 'explicate' is to describe the workings of a process that is hard to uncover, while the phrase 'ruling relations' refers to how 'texts' (i.e. documents) spell out how people are supposed to work together.

AN EXAMPLE OF INSTITUTIONAL ETHNOGRAPHY

One IE study sought to understand a problematic arising from intra-professional tension between hospital physicians at the ED and GIM departments in Ontario, Canada, in the early 2010s.[2] To understand the problematic – why the social relations were poor from the standpoint of the physicians – institutional ethnographers interviewed and shadowed the ED and GIM staff to understand their everyday work processes. They also identified and analysed local texts such as the physicians' notes on patients.[2]

IE researchers discovered that tension began when ED physicians started admitting many frail and elderly patients without concrete diagnoses. These patients were admitted from the ED for social reasons, as opposed to clearly defined medical reasons. These patients were admitted mostly to GIM wards, adding to the busy workload and exacerbating the existing shortage of beds in these wards. As there was no clear medical need to admit these patients, many GIM physicians felt that the extra patient load had wasted their time, and consequently, tension arose between them and their ED counterparts.[2]

Following IE methods, researchers identified and explicated how an extra-local text governed the ruling relations of the work processes for ED and GIM physicians. This text was a new government policy mandating shorter wait times at EDs, which led to ED physicians feeling compelled to admit or discharge patients quickly, thus resulting in a change in their patient admission behaviours.[2] In the parlance of IE, this mandate, in the form of a text, coordinated the social relations between the ED and GIM physicians.[2]

WHY DOES INSTITUTIONAL ETHNOGRAPHY MATTER?

IE asserts that the work processes of different groups of people on the ground are coordinated by extra-local texts that individuals might not be fully aware of.[10,11] In the preceding example, the GIM physicians may or may not have been aware of the new government policy mandating shorter wait times in the ED. The GIM physicians only knew that they were experiencing a greater workload and felt resentment towards their ED counterparts for not making concrete diagnoses before admitting patients. The diminishing goodwill between the two groups of physicians thus formed the problematic of the IE study.

It is also significant that the mandated shorter wait times in the ED did not address the underlying issue of patients being sent to hospitals for social rather than medical reasons;[2] the government policy only moved the workload from the ED to the GIM department. This disjuncture marks the dissonance between the official understanding of an improved hospital experience (shorter wait times) and the actual work being done on the ground (ED patients being moved to the GIM department without any problem resolution).

As shown in this study,[2] through understanding people's actual work processes on the ground, IE methods helped to uncover the link between the government mandate (extra-local text) and the resulting dysfunctional work processes affecting the ED and GIM departments which, in turn, led to heightened intra-professional tension between both departments.

In short, IE serves as a practical qualitative research methodology that helps to trace everyday work processes to higher-level coordinators such as institutional leadership and management. Through this, individuals can become aware of their position in the larger systems and potentially have the opportunity to enact change and bring about new approaches to their work.[17]

APPLICATION TO INTERPROFESSIONAL RESEARCH: A WORKED EXAMPLE

IE is increasingly used in health services research[20] but has yet to penetrate the realm of healthcare professionals.[11] Given that healthcare professionals and scholars may be unfamiliar with IE and thus may find it challenging to employ, this section seeks to provide a worked example of how an IE study on interprofessional research was conducted.

Study background

The IE study to be analysed was conducted by Braaf et al.[21] They focused on the time-out procedure recommended by the World Health Organization (WHO)[22] to counter the rise in avoidable surgical complications[23] and adverse events[24-26] due to suboptimal communication among interdisciplinary surgical teams. In essence, the time-out procedure is a brief pause taken before a surgery begins, wherein the whole interdisciplinary surgical team comprising the surgeon, nurse and anaesthetist are supposed to check the patient's identity, confirm the operative site and side by inspection, and ascertain the type of surgery to be performed.

Step 1: Identifying the disjuncture and problematic

IE studies begin with the identification of a disjunction, that is, the gap between what is actually happening and what authoritative knowledge claims is or should be happening.[10,11] Braaf et al sought to understand why interdisciplinary surgical teams failed to adhere to the time-out checklist despite the fact that Australian hospitals had incorporated it into preoperative checklists as per the WHO's recommendations.[21] This was an issue of research significance, because the disjuncture's resulting problematic was that surgical errors continued to occur despite time-out being implemented.

From the perspective of research question formulation, IE is suitable for busy clinicians who want to address a problem they

have observed or experienced in the workplace – specifically, problems that result when things that are officially supposed to be done do not happen in practice. One example would be how (pre-licensure) interprofessional education does not always lead to collaborative practice in clinical settings.[27] IE would be useful to address such research problems, as there may be texts that could explicate ruling relations that do not encourage interprofessional teamwork.

Step 2: Data collection methods

The methods for data collection used by Braaf et al for their IE study included observations, interviews and FGDs.[21]

Braaf et al observed participants (interdisciplinary surgical HCPs) for 2–4 hours during mornings, afternoons, weekdays and weekends, totalling 350 hours.[21] These observations were made at a distance to enable the informant's speech to be heard clearly, but not so close to be intrusive, cause disruption or contaminate sterile areas.[21] The observer noted the extent to which different HCPs adhered to the time-out procedure that was supposed to be implemented before each operation.[21] As a data collection method, observation is useful because it is common for individuals to say they are doing one thing when in reality they are doing something else, not necessarily because they are dishonest but because they may lack awareness or may be unable to articulate the subtleties of what goes on during their interactions with others.[28] Observations place researchers at the centre of the action, where they can see as well as hear what goes on.[28]

Besides observations, Braaf et al also conducted interviews and facilitated FGDs. A total of 30 participants took part in the interviews or FGDs. Each interview or FGD lasted for about 40 minutes. Of these 30 participants, 12 also agreed to be observed for the purpose of data triangulation.[21] Braaf et al did not provide demographic details of the interview and FGD participants. However, in general, interviews are useful, as this method of data collection helps researchers gain insight into individuals' experiences;[29] in this case, their workplace experiences could explicate ruling relations, that is, the identification of remotely crafted texts such as policies and protocols that determine the actual day-to-day work that people have to do. FGD also helps in obtaining a detailed understanding of processes,[29] in this instance, processes that govern participants' workplace relations. FGDs differ from interviews in that their additional group dynamics and interactions among the participants[29] could presumably help researchers to appreciate the processes from a multiple-departmental perspective.

Step 3: Data analysis method

Braaf et al then explicated the ruling relations that undermined the effectiveness of the time-out procedure. By triangulating the data collected through observations, interviews and FGDs, they found that although the interdisciplinary surgical team attempted to activate the text on quality and safety, their attempt was overwhelmed by more powerful competing extra-local texts on productivity and efficiency, specifically the state's elective surgery access policy[21] and a document spelling out the key organisational performance indicators to be accomplished.[21] The researchers' knowledge of hospital administrative processes also enabled them to triangulate regular audits (that ensure maximal utilisation of theatre time and space) with interview data, which showed that most surgeons and anaesthetists found the time-out procedure time-consuming. This led them to avoid performing it, although it took less than a minute to perform. Out of 107 surgeries observed, the entire time-out procedure was performed only 11 times. It was not performed for five surgeries, and in the remaining 91 surgeries, the procedure was either abridged (with omission of certain steps) or incomplete, where members of the team did not participate.[21]

Step 4: Recommendations and conclusions useful for changing practice

Based on the findings of their IE study, Braaf et al made the following recommendations to improve the implementation of time-out procedures. First, they proposed that hospital leadership should implement communication education programmes that seek to flatten extant hierarchies and promote tolerance for open questioning by co-workers. Second, they suggested that government departments crafting healthcare policies that determine hospital performance indicators must take into account the communication challenges faced by surgical teams for delivering safe patient care in constrained timeframes.[21]

IE is, thus, a useful problem-solving methodology to flag underlining issues. By capturing in detail how time-out was actually performed in busy operating theatre environments and tracing the extra-local texts that explicated the (hidden) ruling relations coordinating the work processes of interdisciplinary teams, IE allowed Braaf et al to generate concrete evidence to support their recommendations.[21] In the present era, where evidence-based approaches reign supreme, IE provides qualitative HCPs and researchers a useful tool to explicate relations and discuss change with key stakeholders. In this example, the findings of this IE study opened up new avenues for understanding and solving the time-out problem in operating theatres. Instead of following the official time-out guidelines and focusing on how to improve adherence to these guidelines, Braaf et al demonstrated the need for government agencies to consider the realities of interprofessional communication when defining key hospital performance indicators. Additionally, they showed that the deep-rooted power asymmetry and hierarchy between doctors and nurses in the hospitals was a factor that hindered the nurses from performing their expected role in successfully leading the time-out communication, even when time pressure was not an issue.

These findings make it apparent that efforts to improve patient safety by highlighting the perceived importance of time-out among HCPs in the operating theatre are unlikely to be fruitful without dealing with power and hierarchy. The actionable insights revealed by IE render it more useful than other qualitative methodologies.

Table II. Quality criteria in institutional ethnography.[21,31]

Quality principles	Quality criteria		Techniques to enhance quality criteria in qualitative research	Institutional ethnography (using Braaf et al's study)
	Quantitative research	Qualitative research		
Truth value of evidence	Internal validity	Credibility: how trustworthy and believable the study's findings are to others	Triangulation: Data: use of multiple data sources Methodological: use of multiple methods	Braaf et al's study used multiple types of data and methodological triangulation, including observation, focus group and interview.
			Prolonged engagement: collect data for a long period of time	Braaf (the first author) clocked over 350 hours collecting data
			Member checking: seek feedback from participants on the (interpretation of the) data	Participants were asked to check whether the account was representative of their experience and to offer feedback. For example, at the end of each surgical procedure, the instrument or circulating nurse was asked to confirm when the time out was conducted, the individuals involved and the components checked during time out.
Neutrality of evidence	Objectivity	Confirmability: how to control researcher bias	Peer debriefing: discuss the research process and findings with fellow experts	An external check of the investigation's credibility incorporated peer debriefings. Experienced, skilled and acclaimed peer reviewers explored the research process undertaken multiple times during the investigation.
			Reflexivity: to be transparent and declare the researcher's perspectives or biases that may impact how the data is collected and analysed	Braaf et al explicitly stated that the background of the observer was that of a registered nurse with 20 years of hospital experience. This suggests that the observer has the requisite medical expertise and experience to make sense of what was observed. However, there was no comment on how the researchers' background influenced analysis. This could be because IE analysis is less dependent on researchers' perspectives and biases, as its main function is to identify texts that explicate ruling relations.

OTHER CHALLENGES

HCPs who intend to use IE may face some challenges. First, IE studies require significant resources and commitment to conduct, and the translation of findings also requires engagement with stakeholders such as hospital administration and policymakers.[30]

Second, as healthcare professionals are trained to consider randomised controlled trials as the gold standard for scientific research, IE studies, which have comparatively much smaller sample sizes, may be deemed as having limited reliability and generalisability. Another perceived limitation is that in IE studies, the researcher may collect data from participants and even analyse it. This practice may lead researchers who are unfamiliar with qualitative methodologies to think that the high degree of subjectivity and bias will render the findings invalid.

However, as pointed out by Cristancho et al, qualitative research has its own set of quality criteria to ensure trustworthiness and rigor.[3] Adapting Frambach et al's[31] framework, we illustrate in Table II how IE studies, using the study by Braaf et al as an example, fulfil quality criteria.

CONCLUSION

IE is a useful qualitative methodology that enables healthcare professionals and researchers to trace everyday work processes to higher-level coordinators (such as institutional leadership and management) that individuals may or may not be aware of. Through such means, stakeholders could then adopt concrete, actionable improvements that will benefit institutions as well as individual healthcare professionals.

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