

STUDENT CONTRIBUTION

Accounting for assessments of mental illness in paramedic practice: A new theoretical framework.

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ABSTRACT

This is the third paper in a series that heralds a study that examines paramedic accounts and constructs of judgment and decision-making (JDM) of mental health and mental illness. This paper will overview an innovative theoretical framework for conducting a discourse-historical case study of paramedic judgment and decision-making of mental health and mental illness using ethnographic and ethnomethodological research methods. The review of the existing research and literature suggests an insufficiency of current theoretical and methodological frameworks to address the research problem and questions of this study. Little examination of judgment in mental illness and health has occurred, which is discussed in an earlier paper.¹ Those studies, and the theoretical frameworks used, are insufficient in addressing key aspects of inquiry in judgment and decision-making, particularly in the paramedic ecology. The theoretical framework described here seeks to begin addressing this insufficiency in a new and innovative way.

Keywords

ambulance officer; decision-making; judgment; mental illness; paramedic; theoretical frameworks.

Background

Medicine is not an exact science, if ever such an entity existed. Accidents in medicine cost lives, generate public and political controversy, and erode public confidence and trust in health care workers and institutions. Individuals and organisations today, more than ever before, are being called to account for their judgments and decisions as society demands greater transparency in the decisions policy-makers take on its behalf. Health care workers are taking on new roles—promoting health, giving diagnostic advice and prognostic information to patients, performing complicated and invasive medical procedures, assessing health risks and screening for early signs of treatable disease—in many cases with decreasing direct supervision. Accountability for decision-making is the cornerstone of a largely self-regulated profession, and the relationship between knowledge and decision-making is coming under increasing scrutiny as health professions attempt to increase their professional status.

Although the craft of ‘ambulance care’ is not new, its evolution into a recognised health profession is arguably in its infancy. The hallmarks of true professionalism encompasses, among other things, a body of knowledge ground in systemic research from which evidence is drawn to guide best-practice. The relationship between knowledge and decision-making has been a crucial element of many health professions’ attempts to increase their professional status—which many, such as medicine and dentistry, have achieved—spearheaded largely by the birth of evidence-based medicine. However, health ‘professions’ such as nursing and ambulance are yet to develop this relationship between knowledge, judgment, and decision-making, particularly in the paramedic ecology that is, the total contexts in which paramedics are engaged in decision-making.³ Paramedics are taking on new roles, performing more procedures and are being called to account for their clinical judgments, decisions, and actions more than ever before. FitzGerald⁴ argues that one of the characteristics of a profession is the possession of a body of knowledge that is the peculiar domain of the group, where growing this body of knowledge is principally dependent on the conduct of appropriate scientific research to inform such clinical JDM. The need to explore clinical judgment and ground clinical practice in results of sustained systematic research is central to this pursuit.³

Earlier papers⁵ identified the need to investigate one area of paramedic practice that has to date been largely unexamined—the ways in which paramedics make clinical judgments of mental illness in the emergency care setting. In those works, the warrant for research into judgment and decision-making practices of paramedics in the context of mental health and mental illness was established. An initial problem faced by the continuing study from which this paper is generated was the lack of any applied or suitable theoretical framework for the examination of paramedic clinical JDM practices in the emergency care setting. A search of the literature, including MEDLINE, CINAHL, ERIC, Cochrane, and PsychINFO, located few studies that examine theoretical model through which paramedic knowledge and clinical judgment constructs are elicited. In particular, no rigorous theoretical model for the mental health assessment of patients in ambulance care could be located and no published research supporting any such investigation could be located. The review of the existing research and literature demonstrates an insufficiency in current theoretical and methodological frameworks in addressing the research problem and questions of this study. Not only is there an insufficiency of the existing literature and research, there is a paucity of any application or demonstration of this work to the specific domain of inquiry of this study. Little examination of judgment in mental illness and health has occurred.

An analysis of the wider literature on the theories of judgment and decision-making suggests the terrain is as competing as it is extensive and controversial.³ The fragmented nature of theories and studies to date within the general health disciplines addressing aspects of clinical judgment process has not yet resulted in a comprehensive understanding of the phenomena⁷ or a suitable universal model or theoretical framework. This paper will herald a new theoretical framework to enable investigation into the accounts and representations of paramedic judgment and decision-making.

Existing Frameworks and Theoretical Constructs

Broadly, the continuing study seeks to examine paramedic constructs and accounts of judgment and decision-making of mental illness in the emergency care setting. This framework proposes the use of a number of methodologies to answer the research question within significant depth and authenticity.

Ethnography and Discourse-Historical Case Study

Fundamentally, the theoretical framework and methodology of this study is grounded in ethnography. Ethnography is a form of social inquiry that seeks to describe and examine the practices and beliefs of individuals, cultures, and communities.⁶ Central to this paradigm is the necessity of a form of enquiry and writing that produces descriptions and accounts about ways of living and life. It is the study of people in naturally occurring settings or 'fields' by means that capture their social meanings and ordinary activities in order to collect data in a systematic manner but without meaning being imposed on them externally.⁷ Ethnography is conducted in instances where there is a need for an empirical approach, a need to remain open to the elements that cannot be codified at the time of the study, and a concern for grounding the phenomena observed in the field.⁸ The key facet of ethnography that is critical to this study and the encompassing theoretical framework is that ethnography provides for 'thick descriptions' with an emphasis on context. In this study, the individuals, culture and community of interest are paramedics. The context of inquiry is the emergency care setting. The nature of inquiry relates to mental health assessments. A thick and dense description of the ecology, context, and setting is essential to the understandings and interpretation required of this study.

Ethnographic research often is susceptible to problems of replication because it is conducted in the naturalistic setting.⁶ Freebody⁶ argues, however, that the susceptibility of ethnographic research, such as problems with replication, may be averted methodologically, and that the enhancement of reliability and validity is achieved in the same manner for ethnographic research as it is for any other. This is achieved by ensuring the clarity and accuracy of the representations on the context of the research, the statement of the problem to be investigated, the ways the researcher gained access to the data, the assumptions of the participants, and understandings on the site about the researcher's role as a researcher.⁶ The use of 'triangulation' enhances the internal reliability. In this instance, the use of observation, interviews, site documents, and other supporting sources of data will be used to instil confidence in the interpretations and conclusions.⁹

This theoretical framework positions inquiry in a discourse-historical case study approach within the ethnographic paradigm. The use of ethnography and discourse analytic studies to examine professional work, particularly judgment and decision-making, are well documented.¹⁰⁻¹² A discourse-historical descriptive case study approach will be used to investigate specific instances of experience, and attempt to gain theoretical and professional insight from a full documentation of those instances.⁶ Cases of real incidents that paramedics have attended will be selected. The use of real case data is essential to provide representations of authentic accounts of judgment. Official records of these cases, the Ambulance Report Forms, will be obtained for analysis. Analysis of such records, and the 'talk' about the cases elicited through interviewing, will occur. The use of ethnography and discourse analytic techniques together is useful because it allows the examination of what clinicians actually do, what they say they do, and how they write or represent their day-to-day activities.¹⁰ The complexity of judgment, decisions and actions are acknowledged in the investigation.

Although case study has enjoyed considerable prominence as a research methodology for many years, it is often criticised as a methodology because of lack of reliability. Case study methodology does not intend to produce results or understandings of settings that are applicable to the entire population in a setting. Unlike in experimental research, where manipulation of variables is central to the methodology, case study research uses observation

of naturally occurring phenomena as it method of inquiry. The purpose and advantage of this methodology is the ability to probe deeply and to analyse intensively to gain insight and understanding of phenomena that are new, not-understood, or unexamined. Paramedic judgment and decision-making of mental illness in the emergency care setting is unexamined and, arguably, not-understood. There is a lack of evidence in the literature that this phenomena has been examined or is understood in the setting described.^{5,13} Much of the criticism of experimental research, particularly in judgment and decision-making, suggest that understanding and knowledge of phenomena from naturalistic research is fundamental to understandings of the same phenomena from experimental research.¹¹

Theories of Judgment and Decision-Making

Ethnography and discourse analytic studies of professional work alone are insufficient in charting or gauging insight into the complexity of JDM. The framing and relevance of contemporary JDM theory must be considered, even if to exclude existing knowledge and theory. The use of ethnographic discourse-historical case study with ethnomethodological techniques must be situated within or be referenced against knowledge of JDM theories and philosophies.

The literature and theories on judgment and decision-making are as extensive as they are controversial. The fragmented nature of studies to date within the general health disciplines addressing aspects of clinical judgment process has not yet resulted in a comprehensive understanding of the phenomena¹¹ or a suitable universal model or theoretical framework. Studies have traditionally followed or engaged one particular JDM paradigm or philosophy exclusively. Few, if any, have sought to view or examine JDM in more than one paradigm, which is a recent and growing criticism of the current body of research.¹¹ Much of the work to date has applied descriptive approaches, such as information processing theories to judgment processes, in an attempt to contribute greater understanding of how judgments are made. In doing so, these studies have in the main provided greater insight into the cognitive process involved, particularly with respect to assessment practices. However, the ecological validity of many of these studies has been questioned,¹⁴⁻¹⁶ particularly with the criticism that they have focused on the representativeness of the judgment tasks presented.¹¹ Many JDM studies have occurred in contexts and ecologies away from the clinical setting and therefore do not induce the same cognitive effect commensurate with the context.^{11, 14}

Conversely, some studies have focused primarily or exclusively on the accuracy or quality of the judgment or judgment process. To date, these studies have focused on judgment error in particular disciplines, largely the operations and management sciences.¹⁷ A major criticism of these studies, that are normative in nature, is that they negate to value of context, ecology, and interaction in examining the JDM processes.^{11, 18, 19} Other authors have criticised the methods by which risk, uncertainty, and stress have been quantified, arguing that no matter how quantified, the full effect of such factors can never fully be understood outside the context of the individual.^{20, 21} Sources of judgment errors in other contexts and disciplines need to be examined and explored. The use of prescriptive approaches, which attempt to improve JDM and help individuals to make better judgments, has also been criticised as a single paradigm of inquiry.^{11, 18} Used considerably in teaching or instruction contexts and intervention studies, prescriptive models have been used to help individuals make better judgments and improve the quality of JDM process. However, most studies have worked only within the prescriptive paradigm, resulting in significant limitations on the value of their findings in other contexts and paradigms.²² Further, a number of studies have attempted to improve JDM in the absence

of any normative or descriptive data or constructs, and have failed because of a lack of understanding of the judgment process or the quality of a good judgments.^{11, 18} It is clear that there are differing and competing accounts of JDM in the literature and in research. In considering this study, it is apparent that none of the existing theories of JDM individually is sufficient to address the specific research problem in its entire context. Thompson and Dowding¹¹ suggest it is time to consider new approaches to existing knowledge and research on JDM that will make lasting contributions. Additional research examining the applicability of the variety of theories of JDM in paramedic practice is required, and new approaches are required.

Ethnomethodology and Accounts

Further central elements to this theoretical framework are the notions of *accounts*, and a methodology for exploring them, ethnomethodology. The world is subjectively structured, possessing particular meanings for its inhabitants, where the task of the educational investigator is very often to explain the means by which an orderly social world is established and maintained in terms of its shared meanings.²³ The concept of ethnomethodology, first mooted by Harold Garfinkel in 1967, provides a means to analyse and explore the ways in which people make sense of and reproduce ordinary, everyday social practice.¹⁰ The particular strength of this philosophy is that it seeks to move away from judging whether a particular practice is right or wrong, and looks instead at how the practice gets to be practice, how it gets done, and what practical action makes it work p. 51.¹⁰ This provides for a very significant dimension to inquiry into actions that ethnography would otherwise not be able to provide. Maynard²⁴ notes that:

‘...ethnographers have traditionally asked - ‘How do participants see things? – With the presumption that reality lies outside the words spoken in a particular time and place. The questions – how do participants do things?’ – suggests that the micro social order can be appreciated more fully by studying how speech and other interactions and behaviours constitute reality within actual mundane situations [p. 144]

The use of *accounts* and ethnomethodology to examine aspects of JDM is not new, and is well documented.¹⁰ By looking at the actions of individuals, and more importantly their representations of their actions through talk, investigators gain insight as to how actions themselves produce orders, culture, and other taken-for-granted aspects of the ecology.¹⁰ The emphasis of language or the ‘talk’ in ethnomethodology is central to success of the methodology, through which special emphasis is placed on the *accounts* people produce of and for their actions. All actions, wether intended or not, are built upon some construct or belief through which activity is justified by the individuals. Patel, Arocha, and Kaufman²⁵ argue that the concept of ‘belief’ is justified and based on knowledge explicitly formulated in symbolic forms. Individuals, and their representations of their symbolic forms, are accounted in their actions. In accounting for events, individuals publish kinds of justification for their action taken. In ethnomethodology, what people say cannot be taken as an unproblematic representation of what really happened p52.¹⁰ In formulating complex judgments, or beliefs, individuals enact complex decisions, judgment-in-action, about what they say or do on the basis of sets of behavioural norms which illustrate a drawing upon of tacit knowledge about which moral orders exist and are encountered.

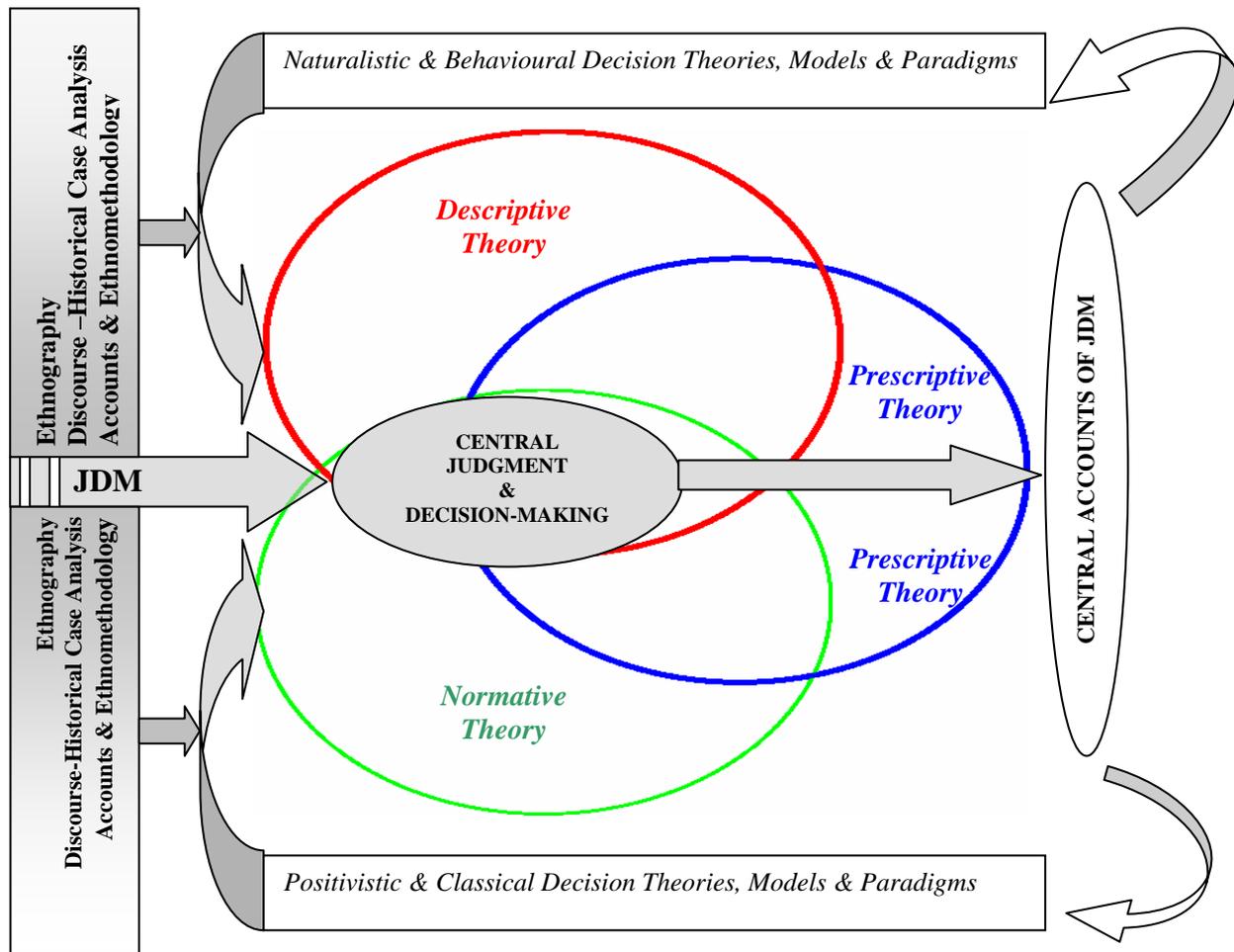
A new theoretical framework

The review of the existing research and literature on judgment and decision-making specific to the paramedic context suggests an insufficiency of current theoretical and methodological frameworks to address the research problem and questions of this study. Studies of paramedic JDM in cases of mental illness or psychiatric emergency referrals are rare. All the articles found related to the examination of paramedic JDM as it related to cardiac arrest, trauma, triage, or decision to transport patients to definitive medical care. These articles are discussed elsewhere.^{1, 2} A thorough literature review failed to locate research that examines the assessment or judgment practices of paramedics in the specific domain of mental health, mental illness, or mental health assessments. Not only is there an insufficiency of the existing literature and research, there is a paucity of any application or demonstration of this work to the specific domain of inquiry of this study—paramedic practice in the mental illness. Given the relatively recent genesis of pre-hospital care as a health-care discipline, this omission is not surprising.²⁶

In proposing a new theoretical framework suitable for use in the paramedic setting, the study will engage with both classical and naturalistic models and paradigms in addressing the research problem. A key criticism of existing research is that individual paradigms examine JDM in ‘parts’ or ‘bits’ and, in doing so, inevitably results in the loss of the full context and interaction, falling short of providing a rich account of the ecology of judgment. This study places JDM at the centre of the framing of the literature and, in doing so, attempts to draw strengths from multiple paradigms and philosophies. The original works of Bell and colleagues,²⁷ and others^{11, 12, 20, 21, 28} inform the foundation for the theoretical framework for this study. In order to gain a thorough and rich account on JDM in paramedic practice a variety of contexts must be considered. Descriptive models, with a focus of how ‘ordinary’ individuals actually make decisions, must be a central factor in theoretical inquiry. Normative models, with a focus on how decisions should optimally be made, should equally be a consideration in JDM modelling. Finally, prescriptive theories, which are ways of helping and improving judgments, must also be considered. The study will merge the three paradigms of existing JDM theory within the ethnographic context in an attempt to gain a comprehensive perspective of paramedic JDM and ‘thick description’ of the ecology and context of paramedic JDM. A representation of this model is provided in Figure 1.

This theoretical framework seeks to enable an exploration of how paramedics make and account for their judgments about mental illness, exploring what informs and influences their judgments, accounts, and constructs. This study will attempt to illustrate how paramedics account for their JDM of mental health, illness, and mental health assessments. Central to this study is capturing the contextual and ecological factors that may influence paramedic JDM. In particular, the study seeks to investigate how judgments are arrived at while seeking to make known the factors that influence the judgments of paramedics in the context of mental health assessments.

Figure 1: Theoretical framework for inquiry into paramedic JDM



Through investigation of paramedic practice, the study seeks to make known tacit and otherwise unavailable constructs and accounts of knowledge, judgment, and decision-making processes that underpin the performance of mental health assessment of patients in the emergency pre-hospital care setting. The study proposes to investigate the JDM experiences of paramedics in a comprehensive and innovative way, acknowledging and including perspectives from both classical and natural paradigms that are essential to the comprehensive understanding of JDM. Using these paradigms, the study will seek to understand and document descriptive (how paramedics in ordinary contexts and situations *do* make judgments and decisions) and normative (how paramedics *should* make judgments and decisions) accounts of paramedic JDM with respect to mental health and mental illness. In order to explore prescriptive accounts of JDM (how to make *better* judgments and decisions), it is essential to have an understanding and insight into how paramedics actually *do* make their judgments and decisions (in real contexts and ecologies), and how they *should* be making their judgments and decisions in view of prevailing official accounts, standards, policies, and guidelines. The suitability of the combination of these methodologies, analytic techniques, and paradigms will be investigated in the ongoing study.

None of the individual methodologies or paradigms identified in this theoretical framework is themselves new to the JDM arena. What is new is the application of this combination of methodologies and paradigms in the paramedic JDM context. This framework, and the study within which it will be used, offers a new way of examining JDM of individuals.

Ethnomethodological techniques are essential to this theoretical framework, as they assist in the inquiry as to the viability of normative theories of judgment (that is those that imply that JDM can be optimised and all risk are able to be quantified and accounted for) given the ecology. Is it reasonable for paramedics, in the context of this study, to make decisions where the results and outcomes are optimised and all risks and uncertainties can be made known in environments that are characterised by high levels of stress, uncertainty, and risk? Is it possible for paramedics to make quality judgments of an individual's mental health in the emergency care setting and, if so, what do these judgment processes look like, how are they made and, more importantly, what are the outcomes from them. Is it possible to then apply prescriptive theories to paramedic JDM processes to help and improving their judgment, or are the environment, context, and ecology of the judgment process too labile and uncertain. Can uncertainty be made certain? Hammond^{20, 21} and many others^{29, 30} would strongly suggest otherwise.

Conclusion

There is a paucity of published work on critical thinking and clinical reasoning in this setting, which could suggest that the value of these skills are not yet fully appreciated in the field of pre-hospital care^{3, 26}. The few studies that have been conducted have sought to examine JDM as it relates to specific instances or cases, particularly cardiac arrest or trauma, and have worked within one particular JDM paradigm or theoretical construct, such as normative and prescriptive theory. These studies, as discussed earlier, are significantly problematic and have significant limitations due to study design or philosophical context. No article could be located that addresses either generally or specifically paramedic JDM practices with respect to mental illness, mental health, and mental health assessments, despite a growing warrant for this research. The absence of published research examining paramedic practice to achieve more accurate judgments (or indeed JDM at all) in the context of mental illness and mental health has meant that the impact of significant changes to mental health service delivery, and the recognition and care of the mentally ill have occurred unexamined.

The complexity of clinical situations faced by paramedics, where, for example, multiple contexts exists with significant levels of uncertainty, risk, and time criticality, most of which make clinical judgment process difficult has not been examined. The identification of strategies to support a more effective judgment processes a challenge has not been attempted.¹¹ The review of the existing research and literature demonstrates an insufficiency of current theoretical and methodological frameworks to address the research problem and questions of this study. Not only is there an insufficiency of the existing literature and research, there is a paucity of any application or demonstration of this work to the specific domain of inquiry of this study. Little examination of judgment in mental illness and health has occurred. This framework does not seek to classify or compare these theories artificially or in terms of each other. Indeed much of the debate in the literature is about that very issue—how researchers and theorists categorise various theories of JDM, and their classification or categorisation into philosophies, schools-of-thought, and professional domains. The problematic, controversial, and, in the view of some researchers, inappropriate attempts to do so are well-documented.^{11, 12, 27, 31} Rather, the framework moots the drawing on existing literature as a foundation to propose a suitable conceptual theoretical framework to address a new research problem. This framework attempts to draw on the relative strengths and advantages of a variety of theories of JDM, in an attempt to offer a new approach to unexplored terrain as suggested by Thompson and Dowding.¹¹ By drawing on the strengths of existing theories and applying additional analytic technique, the framework attempts to offer a unique perspective of paramedic judgment and decision-making.

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Other papers in this series:

Paper 1 - Mental health and mental illness in paramedic practice: A warrant for research and inquiry into accounts of paramedic clinical judgment and decision-making.

Paper 2 - Theories of clinical judgment and decision-making: A review of the theoretical literature.

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