Trust in the health-care provider–patient relationship: a systematic mapping review of the evidence base

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Abstract

Purpose. Trust is important for patients and may be used as an indicator and potential ‘marker’ for how patients evaluate the quality of health care. The review aimed to classify the current evidence base on trust in the patient–provider relationship in order to identify strengths and weaknesses and to point towards areas for future research.

Data sources. Nine electronic databases were searched from 2004 onwards using text and subject heading keywords relating to ‘trust’ and ‘health care’ and ‘relationships’.

Study selection. Abstracts were identified for empirical studies carried out in health-care settings that explicitly examined trust or reported trust-related findings as a secondary outcome.

Data extraction. Two review authors assessed the relevance of abstracts and extracted data relating to year published, country of study, clinical speciality, study design and participants.

Results of data synthesis. Five hundred and ninety-six abstracts were included. Most reported on patients’ trust in providers; were carried out in the USA; collected data in family care or oncology/palliative care settings; used questionnaires and interviews and elicited patients’ perspectives. Only one study explicitly set out to examine providers’ trust in patients and <5% of included studies reported on providers’ trust in patients.

Conclusion. Providers’ trust in patients remains a neglected area on the trust research agenda. Empirical studies examining the factors that influence providers’ trust in patients and how this might affect the quality of care and patient health-related behaviours are urgently needed to redress this imbalance. Further exploration of this area using observational methods is recommended.

Keywords: professional–patient relations, quality indicators, health care, mapping review, trust

The concept of trust has been predominantly associated with situations of uncertainty and risk, relations of dependency between experts and non-experts, and expectations about future behaviour/interactions. The asymmetrical provider–patient relationship in health care is therefore a prime example of what has been called a ‘trust relationship’ [1] where trust acts as one means of bridging between both parties to the encounter [2].

Indeed the essential role that trust plays in effective doctor–patient relationships has been long recognized [3]. Trust has been shown to be a critical factor influencing a variety of important therapeutic processes including patient acceptance of therapeutic recommendations, adherence to recommendations, satisfaction with recommendations, satisfaction with medical care, symptom improvement and patient disenrollment [3]. Trust, as this evidence suggests, is important for patients and may be used as a quality indicator or at least a potential ‘marker’ for how patients evaluate the quality of health care [4]. In a systematic review of trust research up to 2004 [5], Rowe cautions that evidence to support the claims about the impact of trust on therapeutic outcomes is in short supply. This is mainly because of the lack of intervention studies or
quasi-experimental studies, but also because in contrast to the sizable literature assessing trust from the patient perspective, studies examining either the value and/or impact of trust from the provider perspective are very limited [4]. However, the need for mutual trust appears to be important, not least because of the so-called shift in the structure and nature of the clinician–patient relationship away from paternalism towards shared-decision-making with an emphasis on patient involvement and self-care [6]. A recalibrated doctor–patient relationship might also increase the potential for a corresponding shift away from assumed or ‘blind’ trust towards conditional and ‘earned’ trust [4]. The extent to which providers’ trust their patients’ (‘felt’ trust) may influence how they treat and manage (‘enacted’ trust) their problems which could in turn influence how patients respond and have consequences for subsequent disclosure and adherence [2].

**Purpose**

The aim of review was to characterize the evidence base on trust in the health-care provider–patient relationship in order to see if, and how, the perspectives and focus of trust research may have changed since Rowe’s review [5] and to identify directions for future research.

A systematic mapping review is ‘a defined method to build a classification scheme and structure a . . . field of interest’ [7]. This type of review does not aim to provide an overview of study findings or synthesize evidence, rather it involves a search of the literature to determine what sorts of studies addressing the systematic review question have been carried out, where they are published, what sorts of outcomes they have assessed, in which populations [8] and using which methods. A mapping review is particularly appropriate where there is an abundance and diversity of research and is often used to identify gaps in research literature from which to commission further reviews and or primary research [9].

A mapping review research question is much broader than a traditional systematic review in order to adequately address the wider scope of such a study [10]. We used the SPICE framework [11] to generate our research question:

S: Setting—healthcare settings  
P: Perspective—patients and/or health-care providers  
I: Intervention (phenomenon of interest)—Trust  
C: Comparison—not applicable  
E: Evaluation—all types of evaluation.

The resultant research question that guided our review was as follows: what are the characteristics of empirical research in the health-care setting examining the role of trust in the patient–provider relationship or reporting trust as an emergent finding?

**Data sources**

In order to access potential studies in the medical, social science and grey literature to address our research question, we searched the following electronic databases from January 2004 to November 2010: EMBASE, MEDLINE, PsychINFO, The Cochrane Library, Applied Social Sciences Index and Abstracts (ASSIA), Soc Index, Web of Science, ETHOS, SIGLE. The databases were searched for text and subject heading keywords relating to ‘trust’ and ‘health care’ and ‘relationships’ in a variety of combinations depending on the database:

1. Trust.mp or Trust/  
2. (mistrust$ or distrust$ or entrust$ or trust$).mp  
3. 1 or 2  
4. Exp Health Personnel/  
5. Exp Patients/  
6. Exp Patient–Physician relations/  
7. 4 or 5 or 6  
8. 3 and 7

Studies were included that:

- had been written in the English language;  
- reported on empirical research;  
- had been undertaken in or alluded to health-care settings;  
- had patients and/or health-care providers as participants;  
- had examined the role of trust in relationships, had investigated interventions that might influence levels of trust, had examined the consequences of trust or had reported on trust as an emergent finding.

**Study selection**

The author N.B. initially assessed the potential eligibility of all abstracts identified from the electronic searches. The whole team independently screened a sample of excluded abstracts (2% each) plus a shared set of 148 included abstracts to refine the inclusion criteria and to agree the main elements of interest for data extraction. To reduce human error and bias, and increase transparency, the first 10% of included abstracts were then double screened by N.B. and R.B. [12]. The remaining titles and abstracts (90%) were divided equally and assessed independently by the same two reviewers. If either of the reviewers had any doubts about particular studies while assessing them they were resolved through discussion between them. A categorization system was developed to classify excluded papers (see Fig 1).

**Data extraction**

Given the number of relevant abstracts identified and the aim to provide a characterization of research on trust, we decided to base data extraction on information available from the abstract and bibliographic information. The following information was extracted from the abstracts of included papers:

- Year published.  
- Country study was carried out in—where the information was not present in the abstract, the address of the first author was used as a proxy measure for where the research study was conducted.  
- Clinical speciality study was carried out in—studies were classified using the UK General Medical Council A–Z medical speciality list [13].
Study method/design utilized—studies were classified as experimental, mixed-methods, observation, focus groups, interviews, mixed qualitative and questionnaire survey.

Perspective of study (whether data were collected from participants who were patients or providers or both).

Whether the study set out to examine trust or whether trust emerged as an important secondary outcome.

Whether the study examined providers’ trust in patients or providers’ trust in patients was reported as an outcome.

Data were extracted independently using a standard form by the same two reviewers (N.B. and R.B.) that identified the papers for inclusion. Again to reduce human error and bias and to increase transparency [12], the first 10% of data were extracted by N.B. and R.B. together with the remainder being divided equally and data abstracted independently. Any queries regarding data extraction were resolved through discussion between them. The extracted data were collated and are presented in Figs 2–5.
Results of data synthesis

Abstracts identified

Figure 1 summarizes the results of the literature search based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow diagram [14]. The literature search identified 13,632 articles, 5,179 of which were duplicates. The remaining 8,453 items were screened of which 7,587 were excluded. Seven thousand and forty-three of these did not address the topic of interest and 268 abstracts were not in the English language. The remainder of these abstracts did not address issues of trust but were excluded because they were not empirical research (463), were not in a health-care setting (21) or did not include patients or health-care providers as participants (62). The remaining 596 items satisfied the inclusion criteria. The abstracts of these 596 papers were read and the relevant data were extracted.

Characteristics of research

In total, 596 studies were published between 2004 and 2010 ranging from 77 in 2004 to 99 in 2010 and peaking at 110 in 2009. Most studies were carried out in the USA (44%) followed by ‘other’ European countries (20%) and the UK (12%). The studies were carried out in a variety of clinical contexts with Family Care (28%) and Oncology and Palliative Care (16%) being the most common (Fig. 2). The majority of methods employed were questionnaire surveys (34%), followed by interviews (30%) and focus groups (9%) (Fig. 3). Fifty-eight per cent of studies were conducted from the patient perspective, i.e. study participants were patients, with 23% being from the provider perspective, i.e. study participants were providers, and only 18% from both perspectives (Fig. 4). The main types of health-care providers were doctors (46%, of which almost half involved family doctors) (Fig. 5). Forty-one per cent of included studies actually set out to examine trust with the remaining 59% being studies where trust emerged as secondary outcome. Only one study explicitly set out to examine providers’ trust in patients and <5% of included studies reported either providers’ mistrust or distrust in patients or patients feeling mistrusted or distrusted by...
providers in their abstracts [1, 3, 15–38]. In the literature the two terms were sometimes used interchangeably, although ‘distrust’ was more commonly used with reference to lack of trust based on prior experience and/or information and ‘mis-trust’ as a general sense of unease.

**Conclusion**

We have provided an up-to-date characterization of the structure of the English language evidence base on trust between healthcare providers and patients in order to identify gaps and provide indications for lack of research in certain areas.

Our review found that there has been an increase in trust research into the provider–patient relationship since the previous systematic review by Rowe [5]. This previous review included 88 studies up until 2004 and even with narrower inclusion criteria (we did not include studies on trust between healthcare providers and managers) our review found between 76 and 110 studies published per year between 2004 and 2010. Despite this evident growth, the overall number of publications is still relatively low and is fluctuating rather than growing year on year like other fields of research [39].

Our review found that researchers are still focusing on the same types of question identified in the Rowe review rather than building on the evidence. Thus, there are clearly gaps between the areas that are being researched with the majority of the studies being conducted from the patient perspective and focusing on patients’ trust in providers with providers’ trust in patients being largely ignored. On the whole, healthcare providers trust patients to seek medical advice in a timely fashion unmotivated by other concerns [40]. Yet healthcare providers are increasingly not just healers of the sick, they are also socially licensed adjudicators on contested or contestable claims by patients to illness, the need for treatment, time off work, disability benefits and so on. Recently, the first scale to measure physician trust in the patient was developed and validated [41], while there have been a plethora of scales developed over the years measuring patients’ trust in healthcare providers [41–45]. More empirical research is needed to readdress the imbalance and examine the ‘other side of trust’, specifically the factors that influence providers’ trust/distrust in patients and how this might affect the quality of care. While patients are usually considered the more vulnerable party in the trust relationship, reciprocal trust is important for an effective relationship and positive healthcare outcomes [3].

Questionnaire and interview methods of data collection focused on the patient perspective were the dominant approaches utilized by our included studies, and the majority were of cross-sectional design. While more studies are needed from the provider perspective, it is also important to have studies that explore the reciprocal nature of the trust relationship over time, from both the patient and provider perspectives. Understanding the ways that trust manifests and how trust relations are forged necessitates the observation of verbal and non-verbal aspects of healthcare consultations such as facial expression and other forms of ‘body language’. Brown et al. [46] argue that the literature neglects the ‘embodiedness’ of the interactions on which trust is based. Observational methods are a detailed way of witnessing human events in the context in which they occur, beyond the reach of many other research approaches [47]. These methods could provide important and much-needed insight into how trust relations are enacted between patients and providers in consultations across different specialities.

Our review found that the majority of studies have been carried out in the specialities of family care, oncology and palliative care. This may be because trust is a more contentious issue in these contexts where the patients may be more vulnerable positioned and or reliant on the expertise of the provider. In terms of family care there has been a tradition for research into doctor and patient relationships [48]. Other under-researched specialities where provider patient trust is likely to be a major issue are in pain services [37] and consultations for medically unexplained symptoms where the legitimacy of pain and conditions are often questioned [49] and the consequences of trust relations regarding the quality of patient care and patient safety [50].

The fact that the majority of studies were carried out in the USA shows that trust is an important research area in American health care. This may be because there are more universities/research institutes and for most topics there would be higher levels of research. However, it could also be related to the USA’s market-based privatized healthcare system where financial incentives and clinical practice are more overtly linked resulting in more obvious conflicts of interest. Patients in the USA also tend to report lower levels of trust in the medical system generally in comparison with other countries [6]; there is also a stronger rationale for more studies of patient racial and ethnic disparities in trust between patients and providers [51].

One limitation of the review is that despite the wide-ranging literature searched there may have been some literature missed, including the literature published in languages other than English or studies that were about trust but used other related terms, e.g. legitimacy. Moreover, extracting data from abstracts rather than full papers meant that it was not always possible to extract all of the information needed from all of the studies. However, this only affected a small number of studies and thus would not have impacted on the main findings. Mapping reviews generally also lack the specificity and quality assessment aspects of traditional systematic reviews potentially masking considerable variation (heterogeneity) between classified studies.

Despite these limitations, our most significant finding is that providers’ trust in patients remains a neglected area on the trust research agenda. Empirical studies examining the factors that influence providers’ trust/distrust in patients and how this might affect the quality of care and subsequent patient health-related behaviours are urgently needed to readress this imbalance. Further exploration of this area using observational methods is recommended.

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References

17. Binfa I, Robertson E, Ransjo-Arvidson AB. We are always asked; ‘where are you from?’: Chilean women’s reflections in midlife about their health and influence of migration to Sweden. Scand J Caring Sci 2010;24:445–53.
34. Thu Anh N, Oosterhoff P, Yen NP et al. Health workers’ views on quality of prevention of mother-to-child transmission and


