

## Peer Review File

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### Reviewer A

**Comment 1:** It is mentioned in the article that despite technological progress, the satisfaction and utilization rate of hit are still very low. What are the potential reasons?

**Response 1:** We thank the reviewer for this comment. We have added the following text to the introduction of the manuscript explaining potential reasons as to why satisfaction and utilization rate of HIT are still low.

Despite the promise of HIT to improve the quality of healthcare it continues to face satisfaction, utilization, and implementation barriers hindering its success (11, 12). A US study indicated that poor system functionalities, difficulty using, and hardware issues reduced clinician satisfaction with the use of HIT such as EHR (13). A systematic review of problems with HIT spanning studies six countries found that problems with HIT included issues with functionality, poor user interfaces, fragmented displays, and challenges in accessing the system (14). A systematic review in primary care across seven countries found that neither quality of care, patient safety nor provider/patient relationships were affected by the adoption of electronic health records (EHR), but that implementation success was fostered by insulating features within the health system such as strong leadership, project management, standardization, and training (15).

**Comment 2:** How to consider the preferences of patients in the construction of hit system?

**Response 2:** Including patients and patient preferences in the development of HIT systems is a highly relevant area of implementation research in regards to this topic. We thank the reviewer for prompting us to expand on this, and have now added the following language to the discussion of the paper, where we can be forward-looking in considering how patient preferences might be integrated into the construction of HIT systems.

To further consider the preferences of patients in the construction of HIT systems, health information developers and health care administrators should seek to collect input from patient/caregiver end-users to identify and implement user-friendly systems that are responsive to patient need. However, healthcare administrators, rather than patients, are often primary stakeholders when examining organizational factors of patient-centeredness (112). As patients may have different ideal uses for HIT than other groups it would make sense to include patients in the identification of

organizational outcomes for intervention.

**Comment 3:** How can information obtained electronically be translated into positive health outcomes?

**Response 3:** We thank the reviewer for this comment. We have addressed this comment by adding a paragraph to the introduction to provide more background on the relationship between HIT and positive outcomes.

There is general agreement that HIT has potential to improve healthcare quality and patient outcomes. A recent systematic review found that over 80% of studies integrating HIT resulted in at least one improved medical outcome among patients (8). Appropriate use of HIT has been demonstrated to reduce human and medical errors (9), improve comprehensive care coordination, monitoring and surveilling patient data over time, improve clinical health outcomes (5). HIT also has the potential to improve outcomes for providers and health systems, such as through streamlining clinical workflow (10) and reducing health care costs (11). HIT is also thought to increase access to care (12).

**Comment 4:** It is pointed out that although a systematic search has been carried out, not all articles on hit preference topics have been captured. Will this have an impact on the research results?

**Response 4:** This is an important point and we are pleased to clarify. The conceptual ambiguity of HIT, which the reviewer raises in Comment 5, is the major reason as to why we indicated that not all articles on HIT preferences might have been captured in our search. Had we created a search strategy based on a differing definition of HIT we might have yielded a different set of returned results. Language describing this has been added to the Discussion. It is our hope that the current paper helps to standardize language and terminology of HIT for use in future research including systematic reviews.

While we conducted a systematic search, it is possible that not all articles on the topic of HIT preferences were captured. One reason for this is the conceptual ambiguity surrounding HIT. Our search followed a very broad definition of HIT (2), as specific descriptions of what does and does not constitute HIT are somewhat lacking. Such conceptual ambiguity creates difficulty in defining appropriate search terms. While our search strategy was based on our selected definition, choosing a different definition of HIT may have modified the returned set of studies and altered findings.

**Comment 5:** Hit is ambiguous in concept, how to confirm or negate hit?

**Response 5:** We thank the reviewer for raising this important point. We completely

agree that HIT as a term is subject to conceptual ambiguity. We have now better described how we defined HIT for the purposes of the current review. This language has been added to Section 2.2:

For the purpose of this review, HIT was defined based on the description set forth by Brailer et al. who describes HIT as “the application of information processing involving both computer hardware and software that deals with the storage, retrieval, sharing, and use of health care information, data, and knowledge for communication and decision making.”(3) Studies describing such technologies were eligible for inclusion, prominent examples of which include electronic health records, patient-portals, and telehealth.

We have also linked this comment to comment 4, as the conceptual ambiguity of HIT is the major reason as to why not all articles on HIT preferences might have been captured. That is to say had we created a search strategy based on a differing definition of HIT we might have yielded a different set of returned results. Language describing this has been added to the Discussion.

While we conducted a systematic search, it is possible that not all articles on the topic of HIT preferences were captured. One reason for this is the conceptual ambiguity surrounding HIT. Our search followed a very broad definition of HIT (2), as specific descriptions of what does and does not constitute HIT are somewhat lacking. Such conceptual ambiguity creates difficulty in defining appropriate search terms. While our search strategy was based on our selected definition, choosing a different definition of HIT may have modified the returned set of studies and altered findings.

### **Guest Editors**

**Comment 1:** There are several additional areas that need to be addressed: Missing (REF)

**Response 1:** We thank you for noticing that we had not specified a reference. We have conducted a thorough reading for grammar and corrected our syntax throughout, including specifically to correct the missing reference in the introduction section as specified.

**Comment 2:** Careful reading for grammar is important. E.g., 3.6.4 should be “Patients” not “Patient’s”

**Response 2:** We thank you for noting this area where the manuscript could be improved. We have conducted a thorough reading for grammar and corrected our syntax throughout, including specifically in section 3.6.4 as specified.

**Comment 3:** Do not center the citations in Table 2. Please left justify.

**Response 3:** Thank you for this clarification, we have now left justified citations in Table 2.