

A Narrative Review of Sociodemographic Disparities in Relation to PEHR Access

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Abstract. Personal electronic health records (PEHRs) enable patients access to their own medical records. Differences in access and use of PEHRs may create health disparities. We conducted a narrative literature review regarding the effects of race, language preference, education, income, and homelessness on PEHR usage as well as PEHRs content, particularly stigmatizing language. Of 3177 citations found, 75 articles were relevant. Patient race, language, income, and education predicted PEHR use, which could potentially exacerbate health disparities.

Keywords. Personal electronic health records, health disparities, narrative review

1. Introduction

Personal electronic health records (PEHRs) are online tools facilitating patient access to their own medical records potentially improving patient engagement and compliance with health care and ultimately improving health outcomes. The effects of PEHR access on health outcomes is still debated, with many studies reporting differing results. Regardless, providing patients more autonomy in their care is still highly beneficial [1]. In Australia, the “My Health Record” PEHR was developed to allow patients access to their health data. My Health Record currently has over 22 million patient accounts, representing a significant portion of the population. However, less than a quarter of these accounts had been accessed in the past month [2]. This underutilization is not exclusive to Australia, with low uptake and utilization present across many nations, due to a multitude of factors [3]. Identifying the determinants that influence patients’ perception and usage of PEHRs is paramount to increase the efficacy of PEHRs. Multiple sociodemographic factors impact PEHR utilization. A systematic review in 2019 revealed income, education level, ethnicity, and language all affect PEHR adoption [4]. Over the subsequent three years multiple articles have been published in this area in response to the release of Meaningful Use stages 2 and 3 data (United States) and the expansion of EHR implementation worldwide.

The objectives of this study were to analyze the effects of five factors on PEHR utilization: race, language, education, income, and homelessness. We also studied if these five factors were related to potentially stigmatizing language in the PEHR. Finally, we related international PEHR data to an Australian context, to enable future Australian research directions and government policy changes to “My Health Record.”

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2. Methods

The databases searched were EMBASE CLASSIC + EMBASE, and OVID MEDLINE® ALL via OVID. Studies were considered eligible if published between January 2010 and July 2022. No other resources were used. Keywords used to identify studies included: 1) patient access to records, 2) Educational Status, 3) Income, 4) Racial groups, 5) Ethnicity, 6) Second language, and 8) homeless. Exclusion criteria included review articles, non-English publications, pediatric, psychiatric and military populations. We further limited our review to articles for which we had full-text access, either through open access or University of Melbourne library subscriptions.

3. Results

The search, using EMBASE and Medline, produced a total of 3,177 studies. After title, abstract, and full-text screening, 75 articles remained for analysis. Sixty-six of the articles were from researchers in the United States, the remaining articles came from the United Kingdom, Netherlands, Argentina, and Austria. Notably, zero articles in our study came from Australian researchers. All five of the factors we examined were shown to have impacts on PEHR utilization. Patient's whose first language was English, were Caucasian, had a high income, and were more educated had a higher likelihood of being a PEHR user. This disparity is multifactorial, with decreased perceived advantage, desire for in-person communication, internet access and language barriers all predicted to increase the digital divide. Patients with African descent encountered stigmatizing language in their PEHR most frequently, leading to possible dissatisfaction with the PEHR. [Here](#) is the complete list of articles we analyzed.

4. Conclusions

These factors should be considered by PEHR stakeholders, to attempt to close the digital divide. Potential implications for clinicians include further promotion of EHR use and ensuring stigmatizing language is kept to a minimum. Future research should be directed to understand the influence of these 5 factors on the Australian "My Health Record" use.

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