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Study	Author	year	Key findings/results	methodology	Weakness/limitation
Study 1	⁹ Silvana Secinaro ¹ , Davide Calandra ^{1*} , Aurelio Secinaro ² , Vivek Muthurangu ³ and Paolo Biancone ¹	2021	² -a fast-growing, multi-disciplinary stream of research that is attracting an increasing number of authors. ⁹ - demonstrate strands of literature that are not purely positive.	² -SR method s qualitative and quantitative variables to highlight the best authors, journals and keywords and combine a systematic literature review and bibliometric analysis	¹¹ ethics, data governance and the competencies of the health workforce the study needs more investigations in other sides.
Study 2	Rushabh Shah Alina Chircu	2018	⁹ a systematic review ³ of the literature. called PRISMA style reviews, involve systematically searching for	⁷ . Systematic literature reviews, also called PRISMA style reviews, involve systematically searching for articles on a given topic in various library databases or through other sources, screening the articles for appropriateness, further evaluating the full text articles for eligibility, and conducting quantitative and qualitative analyses.	⁷ additional articles could be identified by using more databases. Searching different databases, such as IEEE Xplore, could identify articles that present a more technical perspective on healthcare applications, and is recommended for follow- up studies focusing on in- depth technical issues. Another limitation is focusing on full text, peer- reviewed journal articles
Study 3	Josep Vehi,	2018	⁴ a functional taxonomy for diabetes management and artificial intelligence. a detailed analysis of each subject category was performed using related key outcomes. This approach revealed that the experiments and studies reviewed yielded	¹⁹ The diabetes solutions have been investigated in the context of multiple critical management issues: Blood glucose control strategies • Blood glucose prediction • Detection of adverse glycemic events • Insulin bolus calculators and advisory systems	⁴ the use of general models, which cannot capture the specific physiological behaviors of individuals

			encouraging results.	⁴ • Risk and patient personalization • Detection of meals, exercise and faults • Lifestyle and daily-life support in diabetes management	
⁶ Study 4	Devam Dave, Het Naik , Smiti Singhal , and Pankesh Patel	2020	A positive attribution ¹ that helps to make a prediction, it is the only feature which mentions the features that lead the model to believe a different prediction, known as negative attributions	features based techniques LIME and SHAP giving explanation of the methods in detail with the support of examples	⁶ needs assist in the process of learning what the black box model thinks and to be able to explain the behavior of the model.
Study 5	¹³ Pouyan Esmailzadeh	2020	The technological, ethical (trust factors), and regulatory concerns significantly contribute to the perceived risks of using AI applications in healthcare. Of the three categories, technological concerns (i.e., performance and communication feature) are found to be the most significant predictors of risk	⁵ online survey to collect data from 307 individuals in the United States.	⁵ Regular audits and ongoing monitoring and reporting systems can be used to continuously evaluate the safety, quality, transparency, and ethical factors of AI-based services. The need of more studies to cover all branches of healthcare
Study 6	²⁰ Ahmad Khanijahani , Shabnam Iezadi , Sage Dudley , Megan Goettler , Peter Kroetsch , Jama Wise	2023	It was organized professional characteristics associated with AI adoption in healthcare settings into three main categories:	¹⁰ electronic databases for relevant publications and outlined the eligibility criteria based on the study Participants (healthcare	⁸ lack of congruity, it was challenging to draw a sound conclusion based on our findings

			10 psychosocial, experiential, and background elements. We organized the organizational characteristics into structural and cultural elements. Patient were grouped by characteristics into three categories: psychosocial factors, background characteristics, and medical characteristics.	12 professionals), Concept (AI adoption), and Context (healthcare settings) peer-reviewed was included, quantitative, qualitative, and mixed-method studies published in English and implemented a qualitative data synthesis approach to categorize and interpret the results.	
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Artificial intelligence is a new generation to technology with a huge number of branches, such as education, finance and healthcare and so on.

Nowadays adaptation of this technology becomes easy and familiar to be used and most of the faculties trying to apply this feature to enhance the quality of service and time saving for both, the client and the service providers.

Varieties of studies were done to observe the impact of AI in healthcare. **The role of artificial intelligence in healthcare: a structured literature review** was done by Silvana Secinaro, Davide Calandra, Aurelio Secinaro, Vivek Muthurangu and Paolo Biancone via 288 peer-reviewed papers were extracted from Scopus. it revealed that AI can support physicians in making a diagnosis, predicting the spread of diseases and customizing treatment paths. In other hand, **IOT AND AI IN HEALTHCARE: A SYSTEMATIC LITERATURE REVIEW**, studies the impacts of two technologies - IoT and AI – on healthcare through systematic review of the literature. Systematic literature reviews, also called PRISMA style reviews, reveals exponential growth in the number of articles published in the last decade, a wide variety of publication outlets, and a large number of authors, all indicating an emerging field with great publication potential in future years. A review was done **Artificial Intelligence for Diabetes Management and Decision Support: Literature Review**, A detailed analysis of each subject category was performed using related key outcomes. This approach revealed that the experiments and studies reviewed yielded encouraging results. The results indicate that artificial intelligence methods are being progressively established as suitable for use in clinical daily practice, as well as for the self-management of diabetes. Consequently, these methods provide powerful tools for improving patients' quality of life.

A study of **Explainable AI meets Healthcare: A Study on Heart Disease Dataset** study and utilize different explainable AI techniques in the healthcare sector, as it gives transparency, consistency, fairness and trust to the system. And shows a clear benefit as well as the previous studies.

Use of AI-based tools for healthcare purposes: a survey study from consumers' perspectives shows promising future in utilizing the AI in healthcare, as well as Organizational, professional, and patient characteristics associated with artificial intelligence adoption in healthcare: A systematic review encourage the outcome of the study.

Most of the previous studies show that more investigations need to be done, ethical application should be considered.

At last, all the previous studies encourage and support the using of AI in healthcare, it supports the detection, evaluation and treatments of medical issues better and easier for the health provider and patient.

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Explainable AI meets Healthcare: A Study on Heart Disease Dataset

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The objective of this paper is to study and utilize different explainable AI techniques in the healthcare sector, as it gives transparency, consistency, fairness and trust to the system. The particulars for the objectives are: – To study feature-based and example-based explainable AI techniques using the heart disease dataset. – To draw out the inferences from the results of these techniques and conclude selection of one technique over the other for a particular area of healthcare. various techniques that give explanation of outcomes given by the black box models. The paper gives insights on how these techniques are advantageous in different conditions. Moreover, the different approaches followed by them are studied.

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ML algorithms use the historical healthcare data collected for the purposes of training where they attempt to learn latent patterns and relationships from data without hardwiring the fixed rules.

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Feature-based model explainability techniques was used, which denote how much the input features contribute to a model's output. There are many Feature-based methods available such as permutation Feature Importance, Partial Dependence Plots (PDPs), Individual Conditional Expectation (ICE) plots, Accumulated Local Effects (ALE) Plot, Global surrogate models, Local Interpretable Model-agnostic Explanations (LIME) and Shapley Additive Explanations (SHAP)

6

The predefined output. Counterfactual explainer methods work on black box models.6 Counterfactual explanations work best on binary datasets. They can also work on classification datasets with more than 3 target values, but the performance is not as good as it is on binary classification datasets. In other words, if X is an independent variable and Y is a dependent variable, counterfactual shows the effect on Y due to small changes in X. Also, it helps to calculate what changes need to be done in X in order to change the outcome from Y to Y'.

6

Contrastive Explanation Method, abbreviated as CEM, is a XAI Method which can give local explanations for a black box model.

6

Pertinent Positives (PP): The Pertinent Positives explanation finds the features that are necessary for the model to predict the same output class as the predicted class. For example, this includes the important pixels of an image, the features having a high feature weight, etc. PP works similarly to Anchors.

Pertinent Negatives (PN): The Pertinent Negatives explanation finds the features that should be minimally and sufficiently absent from an instance whilst maintaining the original output class. PN works similarly to Counterfactuals.

12

The role of artificial intelligence in healthcare: a structured literature review

The study discusses how does the artificial intelligence relate to healthcare and the impact of AI positive benefits through several sides in healthcare such applications, healthcare service management, predictive medicine, clinical decision-making, patient data and diagnostics and the importance of data quality for the decision-making process. And it aims to create a fruitful discussion with healthcare professionals and administrative staff on how AI can be at their service to increase work quality.

A 288 peer-reviewed papers were extracted from Scopus. The authors used qualitative and quantitative variables to analyze authors, journals, keywords, and collaboration networks among researchers. Additionally, the paper benefited from the Bibliometrics' R software package. The investigation showed that the literature in this field is emerging. It focuses on health services management, predictive medicine, patient data and diagnostics, and clinical decision-making. The United States, China, and the United Kingdom contributed the highest number of studies. Keyword analysis revealed that AI can support physicians in making a diagnosis, predicting the spread of diseases and customizing treatment paths.

This paper evaluated AI in healthcare research streams using the SLR method. As suggested by Massaro et al., an SLR enables the study of the scientific corpus of a research field, including the scientific rigor, reliability and replicability of operations carried out by researchers the authors believe that an SLR is the best method because it combines scientific validity, replicability of the research protocol and connection between multiple inputs. a fast-growing, multi-disciplinary stream of research that is attracting an increasing number of authors. The research, therefore, adopts a quantitative approach to the analysis of bibliometric variables and a qualitative approach to the study of recurring keywords, which has allowed us to demonstrate strands of literature that are not purely positive. There are currently some limitations that will affect future research potential, especially in ethics, data governance and the competencies of the health workforce.

IOT AND AI IN HEALTHCARE: A SYSTEMATIC LITERATURE REVIEW

A concise summary of the research paper's objectives, methods employed, and its key findings. - A critical analysis that highlights the paper's strengths and weaknesses, including an evaluation of the methodology and data sources used. - Identification of any connections or conflicts between the findings of the selected papers.

This paper studies the impact of technologies such as IoT and AI in healthcare, such as Wearable devices and connectivity between the patients and devices and health care provider, detection and treatment and sensor networks. a systematic literature review of 75 peer-reviewed scholarly journal articles identified and analyzed through a rigorous process. The analysis reveals exponential growth in the number of articles published in the last decade, a wide variety of publication outlets, and a large number of authors, all indicating an emerging field with great publication potential in future years. It is reinforced by an analysis of meta-data subjects and by the authors' own coding of article topics, which indicate that the majority of papers are either conceptual papers or papers describing the design and testing of technology-enabled applications and devices, which is expected for nascent areas of research

the results point out that technologies such as IoT and AI can improve healthcare in a variety way, but that further developments are needed for system accuracy, security, data collection and management, and privacy protection. Last, but not least, the paper highlights key insights for the top application categories, which include wearables and connectivity, disease detection and treatment, patient care, and sensor networks. These applications have numerous potential benefits for patients, their caregivers, doctors, and hospitals. However, technology acceptance by doctors and patients and development of stronger and more consistent regulations for data security and privacy, and systems efficacy and safety are key determinants of success for healthcare applications using technologies such as IoT and AI.

Artificial Intelligence for Diabetes Management and Decision Support: Literature Reviews

This study aims to review recent efforts to use artificial intelligence techniques to assist in the management of diabetes, along with the associated challenges.

A review of the literature was conducted using PubMed and related bibliographic resources. Analyses of the literature from 2010 to 2018 yielded 1849 pertinent articles, of which we selected 141 for detailed review. The result was a functional taxonomy for diabetes management and artificial intelligence. Additionally, a detailed analysis of each subject category was performed using related key outcomes. This approach revealed that the experiments and studies reviewed yielded encouraging results.

Evidence of an acceleration of research activity aimed at developing artificial intelligence-powered tools for prediction and prevention of complications associated with diabetes as a result of the study. It indicates that artificial intelligence methods are being progressively established as suitable for use in clinical daily practice, as well as for the self-management of diabetes. Consequently, these methods provide powerful tools for improving patients' quality of life.

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Use of AI-based tools for healthcare purposes: a survey study from consumers' perspective

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This study sheds more light and focus on factors affecting perceived risks and proposes some recommendations on how to practically reduce these concerns.

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Data were collected in April 2020 from Amazon's Mechanical Turk (MTurk) to obtain a representative group of subjects in the United States. MTurk is a survey tool that has been used in as an acceptable means to collect individual-level data from the general population of interest.

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The findings of this study provide implications for research and practice in the area of AI-based CDS. Regulatory agencies, in cooperation with healthcare institutions, should establish normative standard and evaluation guidelines for the implementation and use of AI in healthcare. Regular audits and ongoing monitoring and reporting systems can be used to continuously evaluate the safety, quality, transparency, and ethical factors of AI-based services

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Organizational, professional, and patient characteristics associated with artificial intelligence adoption in healthcare: A systematic review

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This review study was aimed to identify and document organizational, professional, and patient characteristics influencing the adoption of Artificial Intelligence (AI) in healthcare.

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Systematic Reviews and Meta-Analyses (PRISMA) guidance used in designing the study and outlining the final report

8

there were some commonalities that was identified across the included studies. Overall, there were results that were determined significant on the acceptance of AI, including psychosocial factors, background

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