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Acceptance, Satisfaction, and Trust in Using Medical Artificial Intelligence in High-, Middle-, and Low-Income Countries

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We use this protocol and it's working

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Abstract

The present protocol aims to assess level of acceptance, satisfaction, and trust in using medical Artificial Intelligence (AI) among public population and health care professionals. It also aims to assess level of stigma in using AI in mental health consultations compared to face to face consultations.

It is expected to find variable levels of acceptance, satisfaction, and trust in using Medical AI due to variable factors. As well, it's expected to find lower level of stigma concerning using AI in mental health consultations.

Materials

Epi-Info software, Google Forms

PLAN OF THE STUDY

1 An anonymous online survey will be used to collect data from participants in high-, middle-, and low-income countries in Africa and Asia.

2 Cross-sectional study design will be used to collect data.

3 The study will include adults aged 18 years or older who are familiar with AI applications living in high-, middle-, and low-income countries.

4 Exclusion criteria:

4.1 Adults not aware of AI

4.2 Adults with severe mental disorders (such as psychotic disorders as schizophrenia, bipolar disorder)

5 Supposing that 50% of the participants are satisfied with using medical artificial intelligence and a margin of error of 5%, the power of the study is 80%, the minimum required sample size will be 385/country. The sample size was calculated using Epi-Info software.

6 A non-random sampling technique (convenience and snowball sampling techniques) will be used to collect the desired sample size through an online survey.

7 A structured self-administered anonymous questionnaire will be developed using Google Forms and distributed through various channels, including social media platforms (Facebook and Twitter), messaging apps (email, WhatsApp, and Telegram). The questionnaire will collect the following data:

7.1 Sociodemographic data, e.g. age, sex, residence, marital status, educational level, occupation, and income.

7.2 Acceptance of using AI, e.g. usefulness, efficiency, better medical services, mastery, expectations among patients, medical costs, necessity of legislation, accuracy, and relevance to life.

7.3 Satisfaction with using AI, e.g. level of satisfaction with using AI in medical field, and level of AI fulfilling expectations.

7.4 Stigma concerning seeking psychological help using AI, e.g. social stigma of consulting AI in psychological problems, consulting AI in psychological problems is a sign of personal weakness and feeling embarrassed if anyone knows that I am seeking psychological help.

7.5 Trust in using AI, e.g. trust using AI, trust in outcomes of AI, and ability to rely on AI.

Ethical considerations

8 The researcher will seek the approval of the Ethics Committee of the High Institute of Public Health for conducting the research.
The researcher will comply with the International Guidelines for Research Ethics.
Online informed written consent will be taken from all study participants after explanation of the purpose and benefits of the research.
Anonymity and confidentiality will be assured and maintained.
There is no conflict of interest.

Statistical analysis

9 The collected data will be subjected to statistical analysis by the use of suitable techniques to achieve the objectives of the study.

AIM OF THE STUDY

10 **General objective:**
To study acceptance, satisfaction and trust in using medical artificial intelligence in in high-, middle-, and low-income countries.
Specific objectives:
1. To develop, culturally adapt and validate an Arabic tool to assess level of satisfaction in using medical artificial intelligence.
2. To assess satisfaction and its predictors in using medical artificial intelligence among public and healthcare professionals.
3. To assess acceptance in using medical artificial intelligence among public and healthcare professionals.

4 . To assess
trust in using medical artificial intelligence among public and mental health professionals.
5. To develop,
culturally adapt and validate an Arabic tool to assess stigma in using medical artificial intelligence for seeking psychological help..
6 . To assess
stigma in using medical artificial intelligence for seeking psychological help.