

SOCIAL ROBOTS PROJECT 2023

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BACKGROUND

The Social Robot Project focuses on seniors in long-term care or retirement home settings who are at risk of social isolation, which leads to a serious public health concern (Cacioppo and Cacioppo, 2014). Many of the residents might not have family nearby or able to visit.

The introduction of these robots is aimed at enhancing the quality of life, providing companionship, and offering innovative solutions to address the social, emotional, and physical well-being of elderly individuals (Wang, Wu, and Liu, 2003). Given that various studies have focused on different aspects of these issues and have attempted to alleviate the challenges faced by seniors, the current study aims to take a more comprehensive approach by evaluating the impact of iPads and Social Robots on satisfaction with life, loneliness, social network size and quality. Ultimately, the study will compare the results from two long-term care facilities in North Bay and Powassan in Canada.

RESEARCH AND MATERIALS

Two retirement homes were selected to begin the project, with 16 volunteers in total. At Cassellholme, iPads were used, while at Eastholme, robot implementation activities were conducted. The protocol included 8 weeks, consisting of 1 week for pretesting, 6 weeks for implementation, and 1 week for post-testing activities.

During these 6 weeks of activities, we engaged participants in games, music, videos, and sing-alongs. The research is quantitative, and data collection involved using forms to assess participants' satisfaction with life, loneliness and social network size and quality in both pre-test and post-test stages. Seven participants were involved at Cassellholme, and nine at Eastholme. Post-test using the same questionnaire will be used to compare the results. Both descriptive and inferential statistics will be used to evaluate each group and compare the two groups.

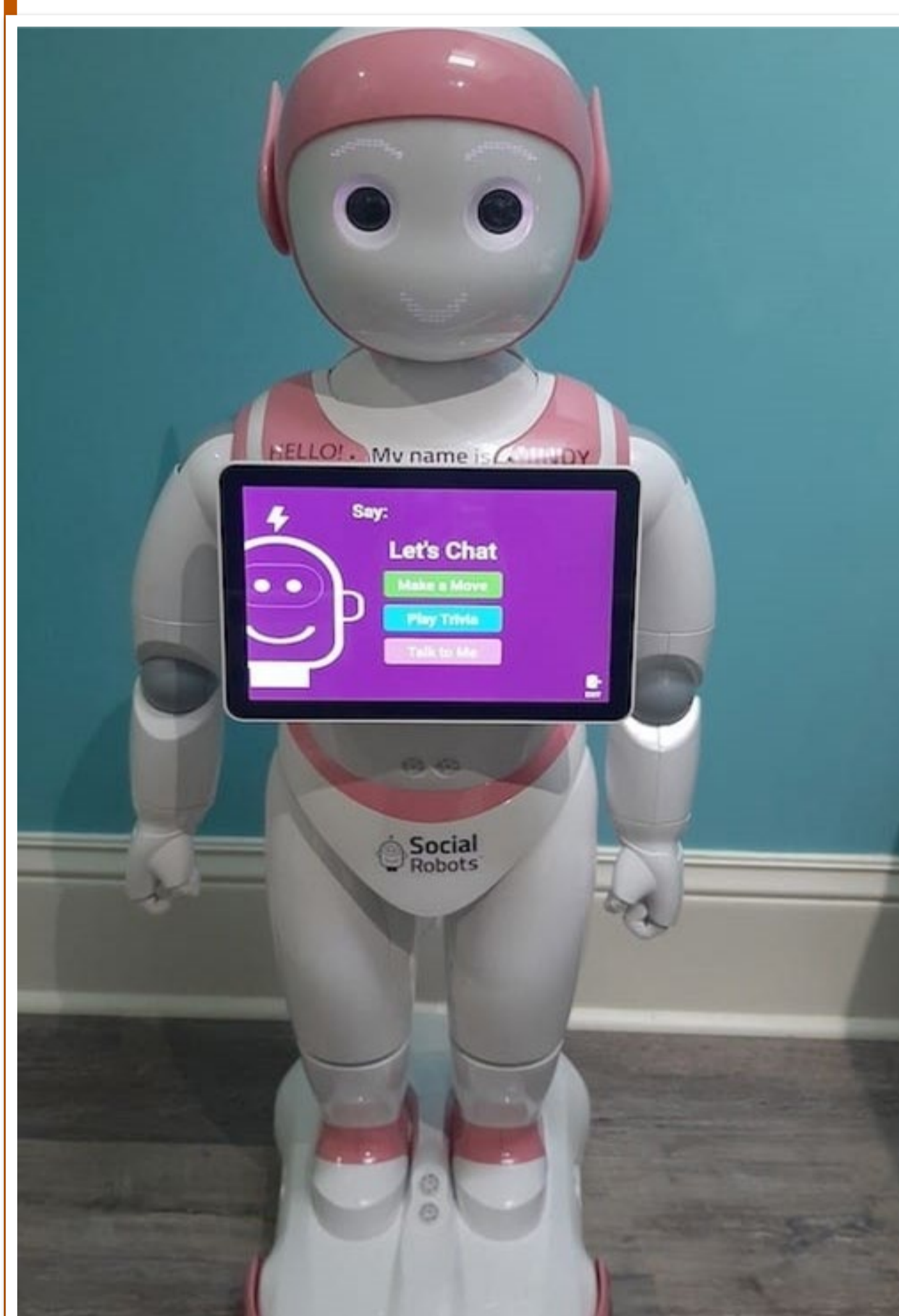


(n.d.). Social Robots. Social Robots Tech for People. Retrieved April 1, 2024, from <https://socialrobots.ca/>

RESEARCH OBJECTIVES

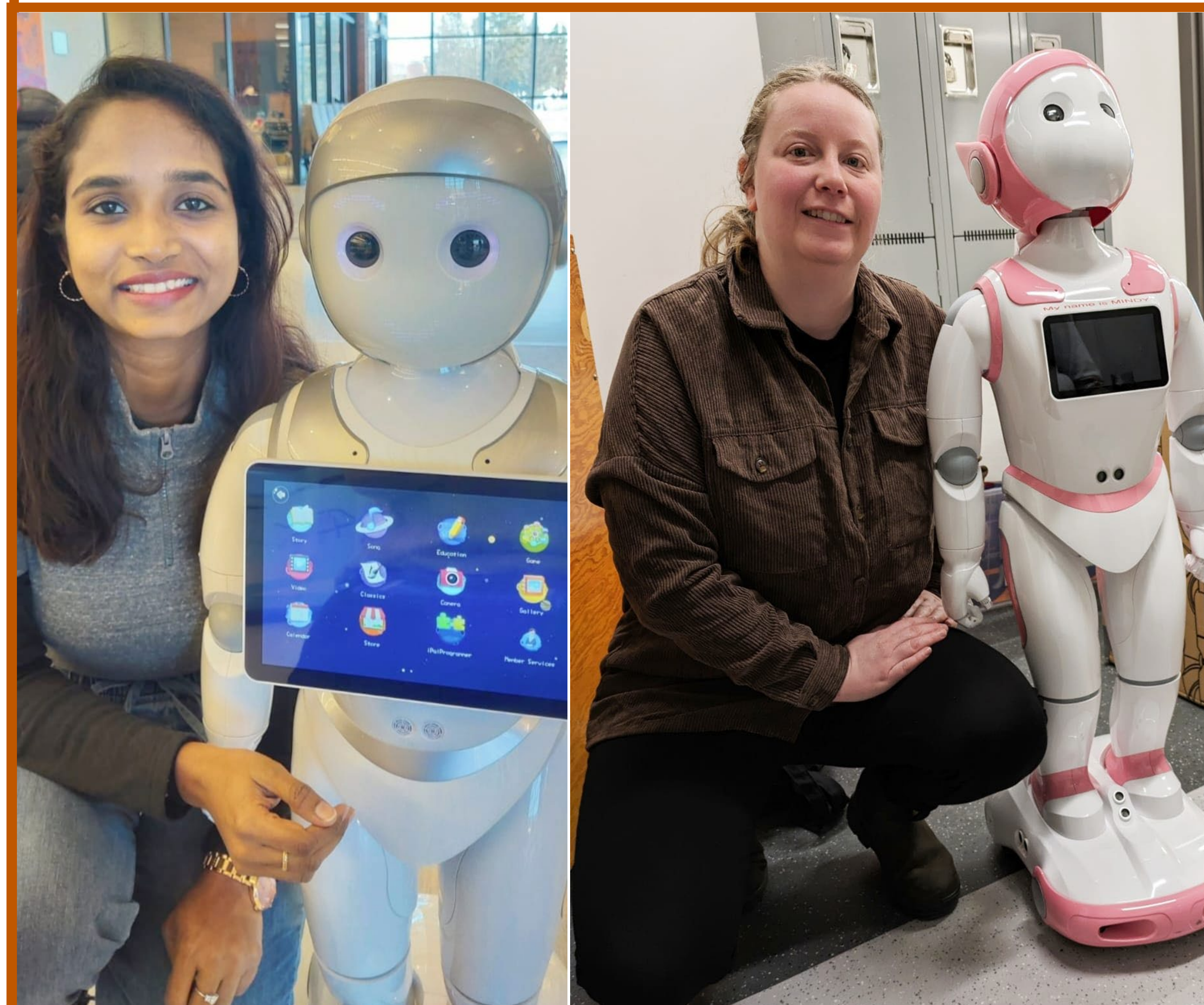
- (i) To identify the needs of the elderly and provide preferences to entertain, engage and educate them.
- (ii) To determine what robot features and programs address older adult needs.
- (iii) To alleviate the effect of isolation that is damaging to the elderly quality of life.

FEATURES OF ROBOTS



Robots are designed to do retirement home activities;-
(i) Play music and movement
(ii) Brain games
(iii) Simple conversation to support recreation leaders in the special events.
(iv) Audio books
(v) Video calls
(vi) Set Reminders.
(vii) We can change the voice tone and do conversation using the robot handler.
(viii) We can download any application by using the software by linking our laptop.

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&
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EXPERIENCE AND SKILLS

1. Understanding the segmentations and recreational needs
2. Evaluation and analysing skills
3. Ethical implication to maintain privacy
4. Interdisciplinary approach provided exposure to diverse knowledge
5. Building positive relationships through active listening, cultural competence, and showing empathy.

EXPECTED RESULTS

Comparing two groups by the Pre-Test and Post-Test survey by using SPSS Software to understand the difference between the usage of iPad and robots with the participants. T-test will be used to compare the two groups on life satisfaction, social network and loneliness. Results may help us to improve the approach and impact the overall objectives.

PROPOSAL FOR FUTURE RESEARCH

- (i) The Social Robot project would take us to suggest future research topics.
- (ii) Navigate us to add more programming and recreational and innovative programming.
- (iii) Involving seniors in training other seniors.

REFERENCE

1. Cacioppo, J. T., & Cacioppo, S. (2014). Social relationships and health: The toxic effects of perceived social isolation. *Social and personality psychology compass*, 8(2), 58-72.
2. Wang, H. H., Wu, S. Z., & Liu, Y. Y. (2003). Association between social support and health outcomes: a meta-analysis. *The Kaohsiung journal of medical sciences*, 19(7), 345-350.