



An Evaluation of Elderly in Community Canteen Service - A Case Study in Yunlin County

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Abstract

According to a report released by the National Development and Reform Commission, the total population will begin to turn negative this year (2020). As the population of seniors living alone continues to grow significantly, planning for the needs of seniors living alone, care providers, and other diverse needs is even more important. This study takes 6 Elderly in Community Canteen Service in Yunlin County as the survey object, mainly to understand the participation satisfaction of the elderly in Yunlin and its implementation effect. Using the SPSS program to analyze the data, the results show that the satisfaction with the government's establishment of the Elderly in Community Canteen Service system is high, and it has a positive and significant impact on food quality, dining mood, and social quality improvement. When food quality is positive, the dining mood is significantly improved, and the effect of social quality is more significant. Elderly in Community Canteen Services can assist community members in understanding long-term care services in their communities and related government welfare policies, as well as enhance their ability to interact and communicate.

Keywords: Elderly in Community Canteen Service, congregate meals

Introduction

With the advent of an aging society, the improvement of Taiwan's medical level, the age structure of the population, and the impact of low birthrates, the gap between Taiwan's family structure and urban and rural areas is becoming more and more obvious. The existence of the elderly has become a key social problem, which requires Additional government support, from subsidies, and promotions to local implementation. For the elderly living alone, "loneliness" and "insecurity" are the biggest problems. They often feel lonely as their children leave their hometowns to work elsewhere. Entrust a nursing center or nursing, and through the Changqing canteen service mechanism, the elderly can have a space where they can take care of and accompany each other.

To provide an enriching quality of life to the elderly, countries have different programs to meet the needs and requirements of the elderly. Community catering service is standard in Taiwan. The development of each county is different. Under normal circumstances, the community will set up canteens in designated locations to provide meals for the elderly and facilitate dining. If the elderly have difficulty moving, the community has set up a volunteer service team to deliver meals to the disabled elderly. Therefore, this study is to explore the different business models of each community and analyze the differences between each community. We will analyze the psychological levels of the elderly, how their business methods are used, what they are purchasing, and the size of the Changqing canteen, to deeper understanding of Changqing's impact on the elderly.

literature review

With the evolution of the times, the level of medical care has gradually improved, and the life expectancy of human beings has also increased year by year. However, due to various problems such as economic pressure, the fertility rate is also declining year by year. Taiwan has entered an aging society. Under the existing medical security system, communities combine private resources to jointly establish a diversified basic medical security network. According to its characteristics, the community discusses health issues, and time inspires residents to play the role of self-determination, autonomy, and self-help. strength, and then condense community beliefs and create a community culture of mutual help and care. "Everyone needs company." In Maslow's Hierarchy of Needs, emotional needs are in the third stage. After the basic physiological needs and safety needs of food, clothing, housing and transportation are met, no matter who they are, they need emotional support. When people live to a certain age, most of them have satisfied their esteem needs such as self-realization and personal achievement, but when they get older, their busy family members/children have no time to accompany them, and their basic emotions cannot be satisfied. satisfy. It is the earliest meal delivery service for the elderly in Taiwan. Since 2005, it has carried out fixed-point shared meal services with community care and care bases.

Congregate Meals brings together the various forms of organization of people's meals by establishing common connections and rules that shape specific values in the crowd. Due to retirement, widowhood and other factors, the elderly are prone to depression. Good eating behaviors are better maintained through appropriate family and social engagement, psychological support, and help with food preparation. Proper care and family support will help older adults. People gain a greater sense of security, leading to increased food intake and balance.

Method

This study adopts a qualitative research method. The main purpose is to explore social phenomena, pursue meaning, and develop new concepts. Interactions of people and things, understanding comprehensive facts and meanings at all levels. The types of qualitative research can be roughly divided into three categories: "personal life experience", "society and culture", and "language and communication". However, this study focused on the dining experience of older adults in the community.

study location. According to information provided by the Youlin County Social Bureau, since 2017, a total of 38 Changqing canteens have been established in 20 townships in Yunlin County. Taking Douliu and Gukeng areas as examples, interviews, investigations, and analyses were conducted on 6 elderly people serving in community canteens. The research objects are Shanfeng Primary School, Yongguang Primary School, Changqing Canteen of Gukeng Community Development Association, Shisanli, Changping Community, and Baozhuang Community in Douliu City. researcharchch method uses the interview method to conduct qualitative research. During the conversation, create a natural situation for the interviewee to have two-way communication and dialogue in a relationship of mutual respect and equality. Researchers should follow the principles of openness and flexibility to enable respondents to fully express their views, opinions, and feelings about the research topic. The purpose of this study is to explore the experience of the elderly participating in shared meal service and to understand the interactive relationship and substantive connotation constructed by the elderly and other participants. After the questionnaires were collected, the data were analyzed using SPSS. Finally, the data are analyzed according to the purpose and hypotheses of this study, and the findings are written.

Findings

This study takes six elderly community canteen service diners as the research object and discusses and organizes relevant literature. In addition to developing the research structure, designing the questions, and administering the questionnaires, a formal survey was conducted. A total of 400 questionnaires were distributed, and 377 valid questionnaires were distributed, with an effective rate of 94%. Data from recycled sources were analyzed and processed. The six regions in this study are numbered as follows:

Shanfeng Elementary School: Code A ,Yongguang Elementary School: Code B, Thirteen Miles: Code C ,Gukeng Community Development Association Changqing Canteen: Code D,Changping Community: Code E, Baozhuang Community, Douliu City: Code F.

Data source: compiled based on this research.

1. Analysis of basic personal data

Table1 Analysis of basic personal data

Code	Gender	Age	Number of people living together
A	male 7 (38.9%) Female 11(61.1%)	65–69:6(33.3%) 70–74:3(16.7%) 75(including the above):9(50%)	1:4(22.2%) 2:12(66.7%)3:2(11.1%) 4(including the above): 0(0%)
B	male 42(49.4%) Female 43(50.6%)	65–69:26(30.6%) 70–74:37(43.5%) 75(including the above):22(25.9%)	1:11(12.9%) 2:35(41.2%) 3:21(24.7%) 4(including the above):18(21.2%)
C	male 38(47.5%) Female 42(52.5%)	65–69:46(57.5%) 70–74:19(23.8%) 75(including the above):15(18.7%)	1:9(11.3%)2:20(25%)3:38(47.5%) 4(including the above):13(16.2%)
D	male 25(46.3%) Female 29(53.7%)	65–69:11(20.4%) 70–74:21(38.9%)75(including the above):22(40.7%)	1:12(22.2%) 2:21(38.9%) 3:15(27.8%) 4(including the above):6(11.1%)
E	male 29(41.4%) Female 41(58.6%)	65–69:23(32.9%) 70–74:38(54.3%)75(including the above):9(12.8%)	1:31(44.3%) 2:9(12.9%) 3:18(25.7%) 4(including the above):12(17.1%)
F	male 38(54.3%) Female 32(45.7%)	65–69:14(20%) 70–74:21(30%)75(including the above):35(50%)	1:4(6%) 2:21(30%) 3:42(60%) 4(including the above):3(4%)

2. Personal lifestyle analysis

Table2 Lifestyle Analysis

Code	Current work situation	Economic status	Catering object
A	retire:16(88.9%) still work:0(0%) retire:2(11.1%)	satisfy:17(94.4%) dissatisfied:0(0%) is acceptable:1(5.6%)	eat alone:2(11.1%) eat with friends:14(77.8%) Dine with family:2(11.1%)
B	retire:59(69.4%) still work:0(0%) retire:26(30.6%)	satisfy:56(65.9%) dissatisfied:12(14.1%) is acceptable:17(20%)	eat alone:24(28.2%) eat with friends:25(39.4%) Dine with family:36(42.4%)
C	retire:62(77.5%) still work:0(0%) retire:18(22.5%)	Satisfy:48(60%) dissatisfied:11(13.8%) is acceptable:21(26.2%)	eat alone:5(6.2%) eat with friends:29(36.3%) Dine with family:46(57.5%)
D	retire:49(90.7%) still work:0(0%) retire:5(9.3%)	satisfy:37(68.5%) dissatisfied:4(7.4%) is acceptable:13(24.1%)	eat alone:8(14.8%) eat with friends:30(55.6%) Dine with family:16(29.6%)
E	retire:56(80%) still work:0(0%) retire:14(20%)	Satisfy:46(65.7%) dissatisfied:19(27.2%) is acceptable:5(7.1%)	eat alone:28(40%) eat with friends:24(34.3%) Dine with family:18(25.7%)
F	retire:61(87.1%) still work:0(0%) retire:9(12.9%)	satisfy:27(38.6%) dissatisfied:5(7.1%) is acceptable:38(54.3%)	eat alone:6(8.6%) eat with friends:26(37.1%) Dine with family:38(54.3%)

3. Personal Cognitive Analysis – Health

Table3 Personal Cognitive Analysis - Health

Code	Personal appetite	Understanding Personal Nutrition Standards	Feel your physical condition
A	good:1 (5.6%) is acceptable:15 (83.3%) not clear:2 (11.1%)	understand:2 (11.1%) notunderstand:16 (88.9%)	good:14 (77.8%) is acceptable:4 (22.2%) not clear:0 (0%)
B	good:48 (56.5%) is acceptable:37 (43.5%) not clear:0 (0%)	understand:21 (24.7%) notunderstand:64 (75.3%)	good:58 (68.2%) is acceptable:26 (30.6%) not clear:1 (1.2%)
C	good:72 (90%) is acceptable:6 (7.5%) not clear:2 (2.5%)	understand:56 (70%) notunderstand:24 (30%)	good:67 (83.8%) is acceptable:10 (12.5%) not clear:3 (3.7%)
D	good:37 (68.5%) is acceptable:8 (14.8%) not clear:9 (16.7%)	understand:12 (22.2%) notunderstand:42 (77.8%)	good:31 (57.4%) is acceptable:19 (35.2%) not clear:4 (7.4%)
E	good:41 (58.6%) is acceptable:24 (34.3%) not clear:5 (7.1%)	understand:13 (18.6%) notunderstand:57 (81.4%)	good:32 (45.7%) is acceptable:17 (24.3%) not clear:21 (30%)
F	good:48 (68.6%) is acceptable:13 (18.6%) not clear:9 (12.8%)	understand:28 (40%) notunderstand:42 (60%)	good:51 (72.9%) is acceptable:7 (10%) not clear:12 (17.1%)

4. Personal Cognitive Analysis – Policy

Table 4 Personal Cognitive Analysis – Policy

Code	High-quality food for the elderly	Can improve the mood of the elderly	Improve the quality of social activities for the elderly	Eating alone will be better
A	agree:18 (100%)disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)
B	agree:85 (100%)disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:85 (100%) disagree:0 (0%)	agree:85 (100%) disagree:0 (0%)
C	agree:80 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:80 (100%) disagree:0 (0%)	agree:80 (100%) disagree:0 (0%)
D	agree:54 (100%) disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)
E	agree:70 (100%) disagree:0 (0%)	agree:70 (100%) disagree:0 (0%)	agree:70 (100%) disagree:0 (0%)	agree:70 (100%)disagree:0 (0%)
F	agree:70 (100%) disagree:0 (0%)	agree:70 (100%) disagree:0 (0%)	agree:70 (100%) disagree:0 (0%)	agree:70 (100%) disagree:0 (0%)

5. Personal Cognitive Analysis – Advocacy

Table6 5 Personal Cognitive Analysis – Advocacy

Code	Residential counties and cities provide long-term care services	Willing to take the initiative to learn relevant knowledge for their health	Active participation in earning institutions	Long-tare facilities must provide	Provide recreational activities for participants to improve their quality of life	Can enhance the positive emotions of the elderly
A	agree:18 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)	agree:18 (100%) disagree:0 (0%)
B	agree:85 (100%) disagree:0 (0%)	agree:85 (100%) disagree:0 : (0%)	agree:85 (100%) disagree:0 : (0%)	agree:85 (100%) disagree:0 : (0%)	agree:85 (100%) disagree:0 : (0%)	agree:85 (100%) disagree:0 : (0%)
C	agree:80 (100%) disagree:0 (0%)	agree:80 (100%) disagree:0 (0%)	agree:80 (100%) disagree:0 (0%)	agree:80 (100%) disagree:0 (0%)	agree:80 (100%) disagree:0 (0%)	agree:80 (100%) disagree:0 (0%)
D	agree:54 (Gauteng disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)	agree:54 (100%) disagree:0 (0%)
E	agree:70 (100%) disagree:0 (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)
F	agree:70 (100%) disagree:0 (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)	agree:70 (100%) disagree:0 : (0%)

CONCLUSION

Yunlin County is the county with the highest proportion of the aging population in Taiwan. Survey research and analysis help understand the current implementation and how participants are feeling. The results show that most seniors are living in retirement mode, living with their families. They have a stable dining group and choose take-home lunch boxes to eat with their families. They also learn about daily nutritional standards and health status. This result is consistent with Hui-Chun Hsieh's (2014) conclusion that physical and mental health can effectively predict successful aging among retirees.

Most seniors know what long-term care services are available in the community, and they are satisfied with their long-term care service plan. They want to develop new opportunities and make long-term care policies sustainable.

Most of the elderly believed that the activities organized by the elderly institutions could stimulate the motivation of self-learning, and felt positive emotions from them so that the participants could lead a better life under their care. Based on this research, it is hoped that it will inform future government and private sector planning policies and benefits that enable seniors in every community to enjoy basic rights, needs and privacy.



COVID-19智慧輔助分流系統臨床接受度之初探

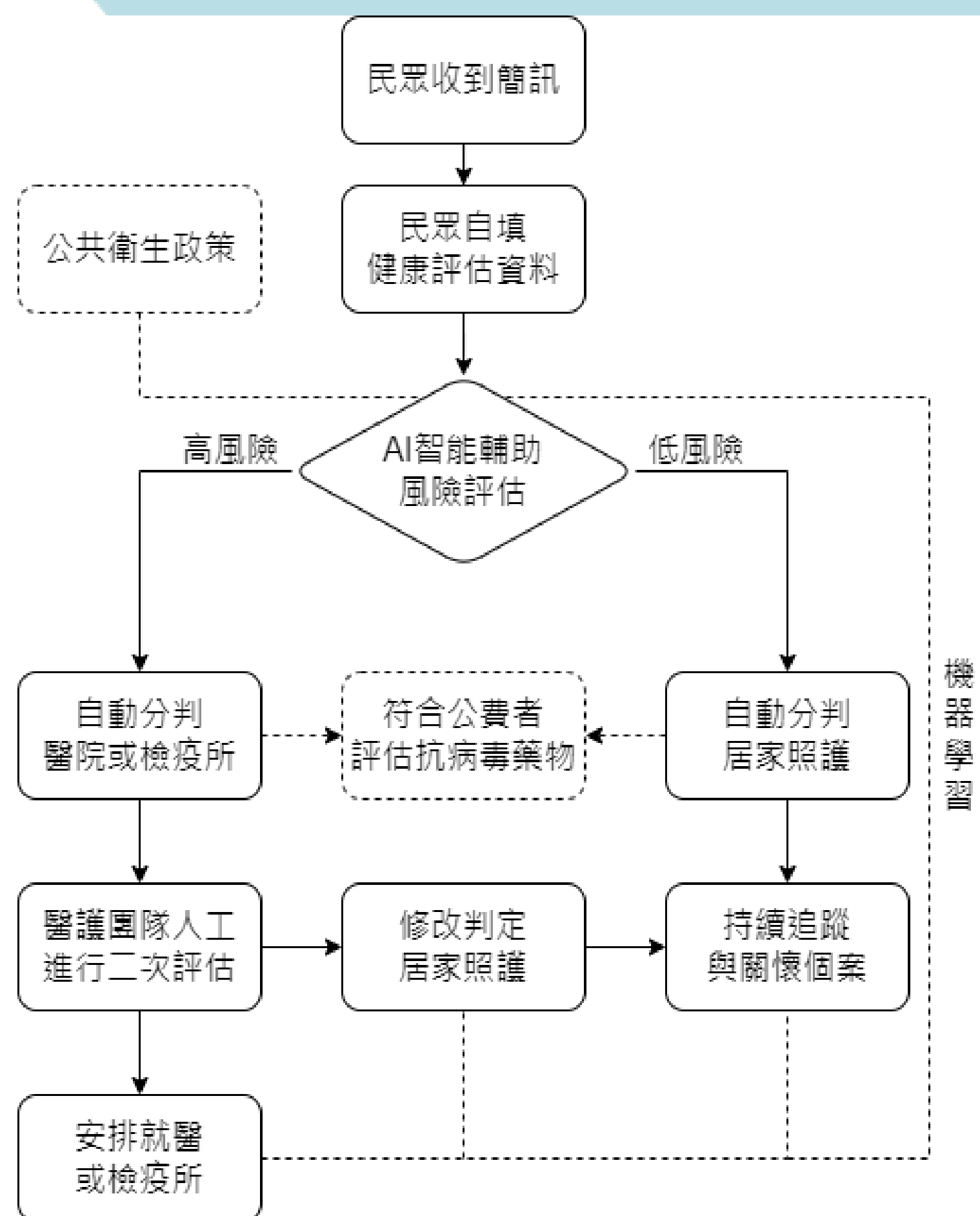
The Clinical Effectiveness of Triage System For Covid-19

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研究目的

2019年COVID-19開始肆虐全世界，而台灣堅守防疫政策，有效掌握疫情；至2022年4月起，因應全球疫情共存趨勢，國內陸續出現疫情蹤跡，社區感染與確診數急速攀升，故新北市政府啟動全國第一個居家照護機制，由亞東醫院率先成立居家照護中心，承接新北市板橋、樹林區域新冠疫情之醫療照護。

亞東醫院接受衛生局居家照護業務後，由各科部共同組成居家照護中心，行遠距照護，惟確診數日益增加，為增加時效、避免重症個案遺漏，亞東啟動跨團隊小組，以最短時間開發出COVID-19個案管理系統並結合智能輔助決策機制。



▲智慧輔助分流系統邏輯架構

此研究目的乃為了解輔助決策系統應用之臨床接受度進行分析，以作為智慧輔助決策系統之調整及長期疫情個案管理追蹤之應用。

研究方法

利用智慧輔助決策，自動化判定與決策，透過系統邏輯，結合民眾回填資料進行判定分流結果及是否建議使用抗病毒藥物，並配合政策調整逐步調整系統邏輯，並於2022年4月至2022年6月進行收案，採回溯法進行研究，系統智能分流判定與最終結果是否一致，透過Kappa係數進行分析，探討此系統之臨床接受度。

討論與結果

本次收案共計83887案，透過IBM SPSS 26進行統計分析，所得Kappa值為0.88，由此可得，此智慧輔助分流系統有極高之臨床接受度，惟本研究未直接收集臨床接受度，而是以分流結果與系統判斷結果的一致性作為替代指標日後仍需持續性調整系統邏輯，持續探討與修正，評估臨床使用滿意度，以達更完善之智慧輔助分流系統。

關鍵字

新冠肺炎(COVID-19)、檢傷分類(Triage)、電子病歷(Electronic Medical Records)。

困難個案(HbA1c大於9%以上)病人運用智慧雲端血糖監測系統提升血糖控制成效

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【研究目的】

根據美國糖尿病協會(ADA)與歐洲糖尿病協會(EASD)共同發表治療指引指出，「併發症管理」是第二型糖尿病的重點治療目標。而延緩併發症的產生必須落實日常生活血糖自我管理，本研究主要運用智慧雲端血糖監測系統介入，監測個案日常生理數值變化，提升血糖控制成效。

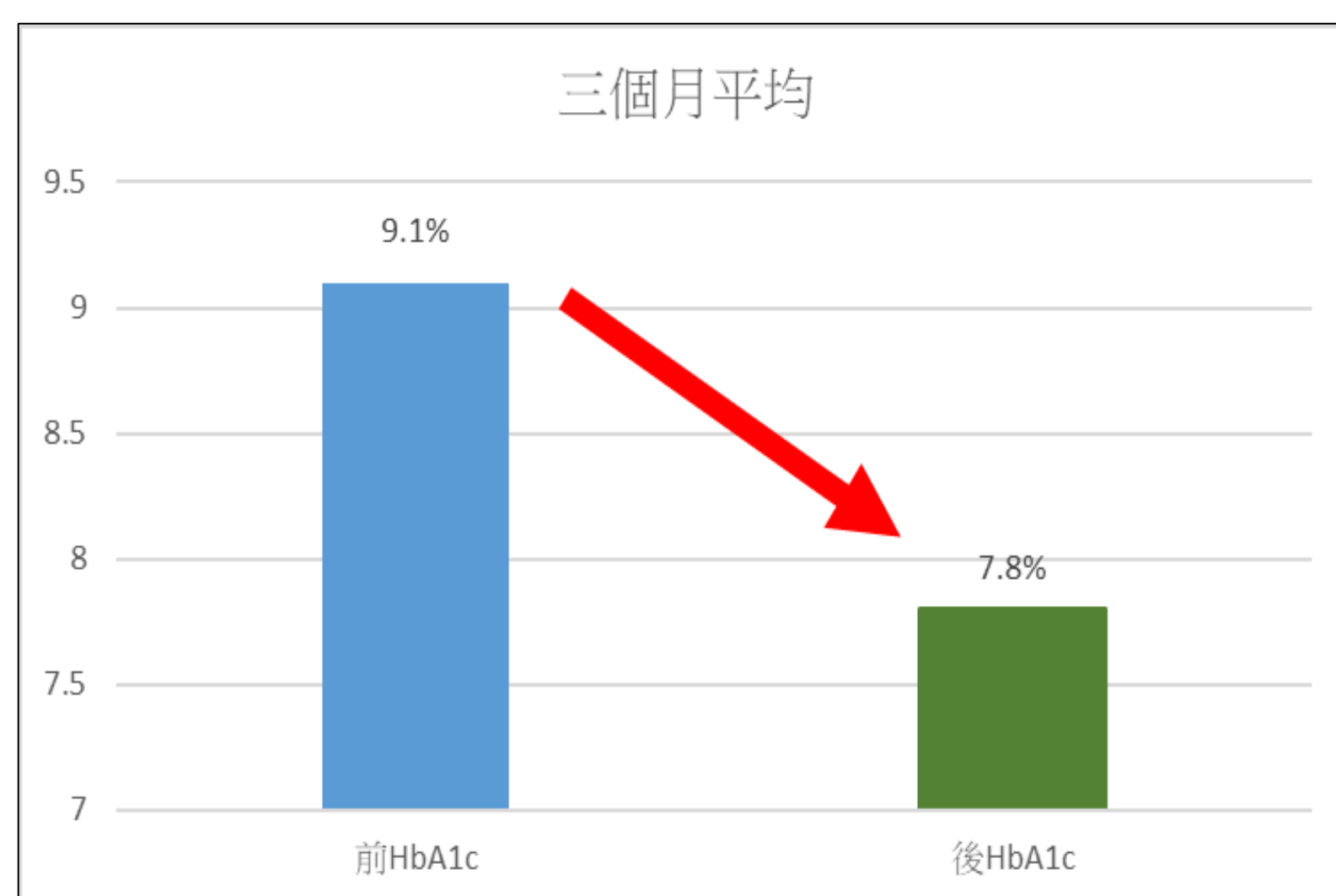
【方法】

糖尿病照護網收案病人HbA1c大於9%以上，且使用智慧型手機個案，由個案管理師詢問意願後，協助下載APP與醫院配對連線，提供遠距照護服務。透過個案將血糖監測、飲食紀錄、藥物劑量等數據上傳至雲端平台，醫療團隊根據上傳資訊進行個人化及數位化管理，照護服務內容包含:個案上傳數據健康管理、提供個別化血糖監測模式建議、追蹤藥物使用遵從度，高、低血糖預防及處理.....等，克服醫病溝通距離，幫助病人達到血糖控制目標。



【結果】

執行期間2021年3月至2021年12月接受APP操作及影片觀看為93人，下載使用為54人，加入新竹國泰醫院照護平台(L6DX)人數為36人，使用率為66.66%。統計36位困難個案使用智慧雲端血糖監測系統前最近一次HbA1c平均值為9.1%，追蹤使用3個月後HbA1c平均值為7.8%，且持續執行自我監測血糖，成效良好。



【討論/結論】

本研究由分析日常血糖趨勢可讓個案了解自身血糖變化，提供餐點調整，依據增強健康行為，達到控制血糖以減少併發症產生，亦可強化糖尿病人自我照護管理能力，最終達到提升血糖控制之成效。

關鍵字：困難個案、智慧雲端血糖監測系統、血糖控制



金融從業人員參與觀光休閒活動之健康促進因素探討

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一、緒論

隨著社會型態之急速變遷，台灣地區由高度發展的工業社會轉型至知識膨脹的資訊服務社會，因生活環境條件的改善，使得工作時間漸漸減少，觀光休閒活動於現今的社會已經是不可或缺。休閒已超越工作效率，轉而強調發展個人的潛能。

二、研究目的

了解金融從業人員參與休閒運動之現況，了解金融從業人員健康促進之現況，比較與分析兩者之關係。

三、研究方法

本研究應用模糊理論將一般不確定性之問題來加以描述。本研究係採用Chang and Lee (1995)，所提出之Original Method(簡稱OM法)。OM值越大，表示該因素之重要性越高。

四、結果

- (一)、金融從業人員參與休閒運動之應用分析架構。主要可分成健康促進要素為：身體健康、人際關係、學習環境、紓解壓力、樂活五大部份。
- (二)、本研究以金融從業人員參與休閒運動進行實證分析。OM權重值指標越高，代表金融從業人員參與休閒之動機越強。
- (三)、經由實證分析，金融從業人員參與休閒運動之健康促進要素仍以身體健康為重心。這顯示身體健康仍是青年參與休閒運動重點。

五、結論

本研究以金融從業人員參與休閒運動健康促進進行實證分析，並以改良Kaufmann 和 Gupta(1988)所提模糊德菲法找出金融從業人員參與休閒運動的五大健康促進因素(身體健康、人際關係、學習環境、紓解壓力、樂活)權重值。本研究之研究成果為金融從業人員參與休閒運動之健康促進要素仍以身體健康為重心。這顯示身體健康仍是青年參與休閒運動重點。

關鍵詞：觀光、休閒活動、健康促進

病症自動分類系統研究

邱隆宣、王崇亮、許善程、莊永豪、蘇美琳

亞東科技大學通訊工程系

一. 研究動機

新冠肺炎2019年底於中國湖北省武漢市首次被發現，隨後在2020年初迅速擴散至全球多國，逐漸變成一場全球性大瘟疫。直至2022年4月，全球已累計報告逾5.09億例確診個案，其中逾621.7萬人死亡，病死率約為1.22%，是人類歷史上大規模流行病之一。為避免人與人之間的接觸、減少群聚與感染，醫院、診所紛紛啟動線上門診服務。使我們想到是否可以在不用太多與患者接觸的情況下，讓患者可以藉由說出自己的不適症狀就可以給予初步的建議及適當的自動線上掛號診別。此研究計畫即是利用病人的語音輸入病痛症狀，系統進行語音辨識後，利用深度學習對症狀進行類別判斷，給予建議與門診掛號協助。

二. 研究方法

本研究主要分兩部分進行，首先是語音辨識，處理語音輸入症狀，將語音轉成本文，第二部分利用神經網路學習[1]的長短期記憶法LSTM(Long Short-Term Memory)進行分類。

2.1 語音辨識

我們使用Google的語音辨識庫將語音轉成文本，其語音辨識原理可分成幾個小模組（圖1）說明，當一段語音進來後，先等比例切成一音框 (frame)，透過聲學模型 (Acoustic Model, AM) 轉譯成一個個狀態 (state)，接著透過決策樹模型，把狀態分成能區別意義的最小單位：音素，音素經過字典可找出對應的字，最後，再透過語言模型 (Language Model, LM) 把一串字整合成句子，再加上自然語言處理 (NLP)，則可轉成有意義的文字。

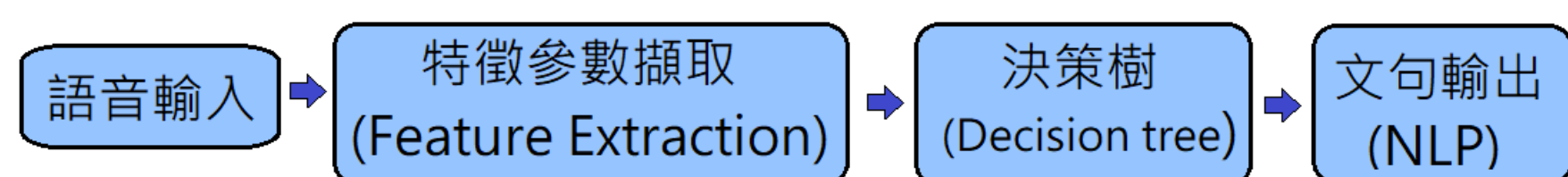


圖1. 語音辨識模組

2.2 症狀分類-LSTM

LSTM演算法(Long short-term memory)，最早由 Sepp Hochreiter和Jürgen Schmidhuber於1997年提出[2]，是一種特定形式的RNN (Recurrent neural network，遞迴神經網路)，可解決RNN在處理長期依賴(時間序列上距離較遠的節點)時，因為計算距離較遠的節點關聯性，產生矩陣的多次相乘帶來梯度消失（經常發生）或者梯度膨脹（較少發生）的問題。

而LSTM之所以能夠處理長的序列，是因為它通過刻意的設計來處理長期依賴問題，記住該記住的資訊、忘記該忘記的資訊LSTM主要通過三個門來進行控制(圖2)：

- (1) 遺忘門，隨著語境的變化，忘記掉前面的需要忘記的信，遺忘門的輸出是一個sigmoid函數，取值範圍為0~1之間，與上一時刻的細胞狀態進行按位元相乘，0代表該位元的資訊徹底忘掉，1代表該位元的資訊完全保留。
- (2) 輸入門，要看新的細胞狀態的資訊哪些需要補充儘量，輸入門也是sigmoid函數，取值範圍為0~1之間，是與當前的細胞狀態按位元相乘。接著新舊狀態就可以合併一起了，形成最終新的細胞狀態。
- (3) 輸出門，最終的細胞狀態加上tanh函數就是輸出，然後輸出門同上是一個sigmoid的0~1取值，作用於輸出，選擇哪些資訊可以輸出。

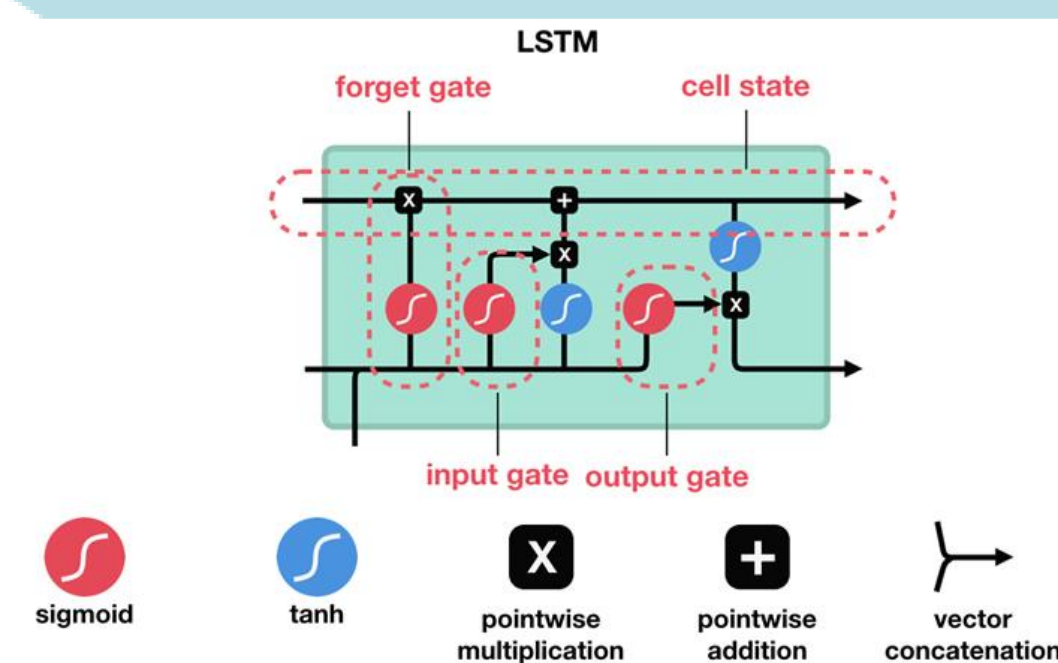


圖2. LSTM原理[3]

三. 實驗和結果

我們實驗資料包括兩部分，(1)以Kaggle網站提供的開放源碼進行修改與實驗，實驗數據集包含 25 種不同疾病相關的問題。(2) 自行錄製不同疾病症狀的敘述，共1277筆，5種不同疾病相關的問題。均需要進行一些預處理(含語音辨識將聲音資料轉文本)，然後使用LSTM對疾病進行分類。

我們使用Keras tokenizer分詞器用來做文字特徵的辨識，並將它們轉換為其單詞索引的整數序列，然後填充序列，使它們都具有相同的長度。並且將stop words，或經常出現的無意義單詞刪除，因為這些單詞太過高頻率的出現，會降低辨識率。

最後進行訓練建立模型與預測的部分，先將對目標列進行Hot one編碼做特徵數字化以獲取模型的標籤，再全部拿去進行訓練，接著由TF/Keras組合LSTM使用短語的填充序列值來預測短語的分類，Kaggle資料庫辨識率達99.7%(圖4)，我們自錄的資料也可達80%左右。

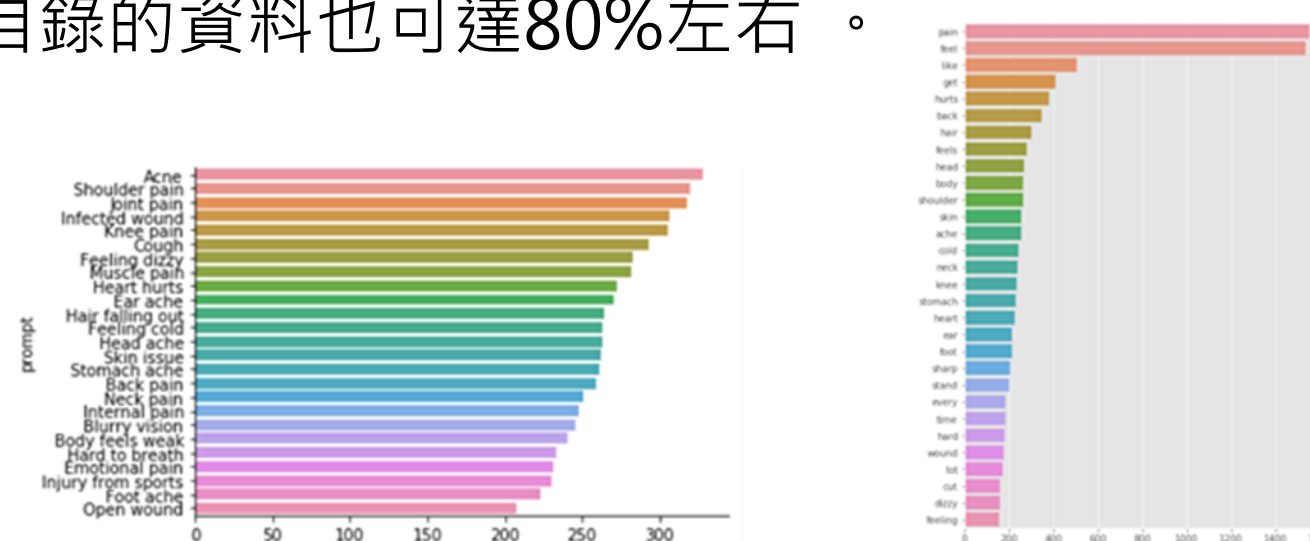


圖3 常出現關鍵字(左：kaggle，右：自建)

[illegible]

圖4 LSTM，epoch=10 辨識結果

四. 結論

由實驗結果可知利用深度學習對病症進行分類是可行的方法，本研究未來可應用於醫院環境，開發AI零接觸智能輸入系統，當醫護人員雙手忙碌時，可透過口述輸入方式，紀錄患者臨床症狀、病史及相關資訊，並串接醫院掛號系統，減輕醫護人員工作量。

致謝

本研究計畫由“財團法人電訊暨智慧運輸科技發展基金會”的產學合作經費支持，計畫編號：RD110-0055。

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健康不打烊，失智APP王

邱瑜頡、陳亭卉、林宜蓁、江佩萱、張意嵐、黃誠恩、劉承展、蕭翔澤、蕭泓晟
指導老師:彭熙寧，李紹綸

一、目的

隨著失智症的普及化，增加了照顧者在照顧上的負擔，此APP設計了一系列關於失智症的衛教單張、運動、壓力檢測表，在照顧的過程中，能利用此APP更加了解該如何照顧失智症患者，以及利用運動及壓力檢測量表來達到緩解壓力。

二、APP介面與使用方式(以Android示範)



醫療資訊查詢系統

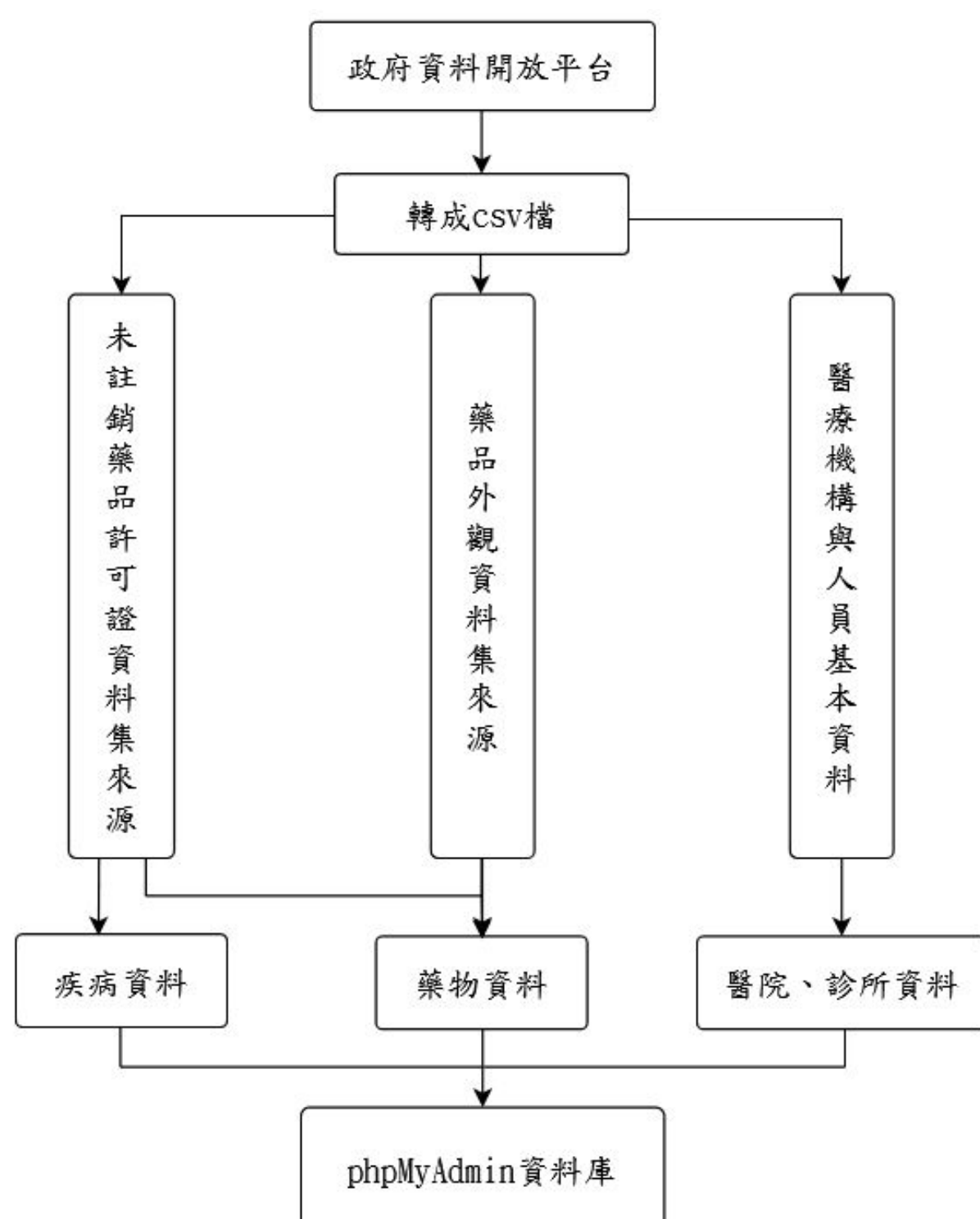
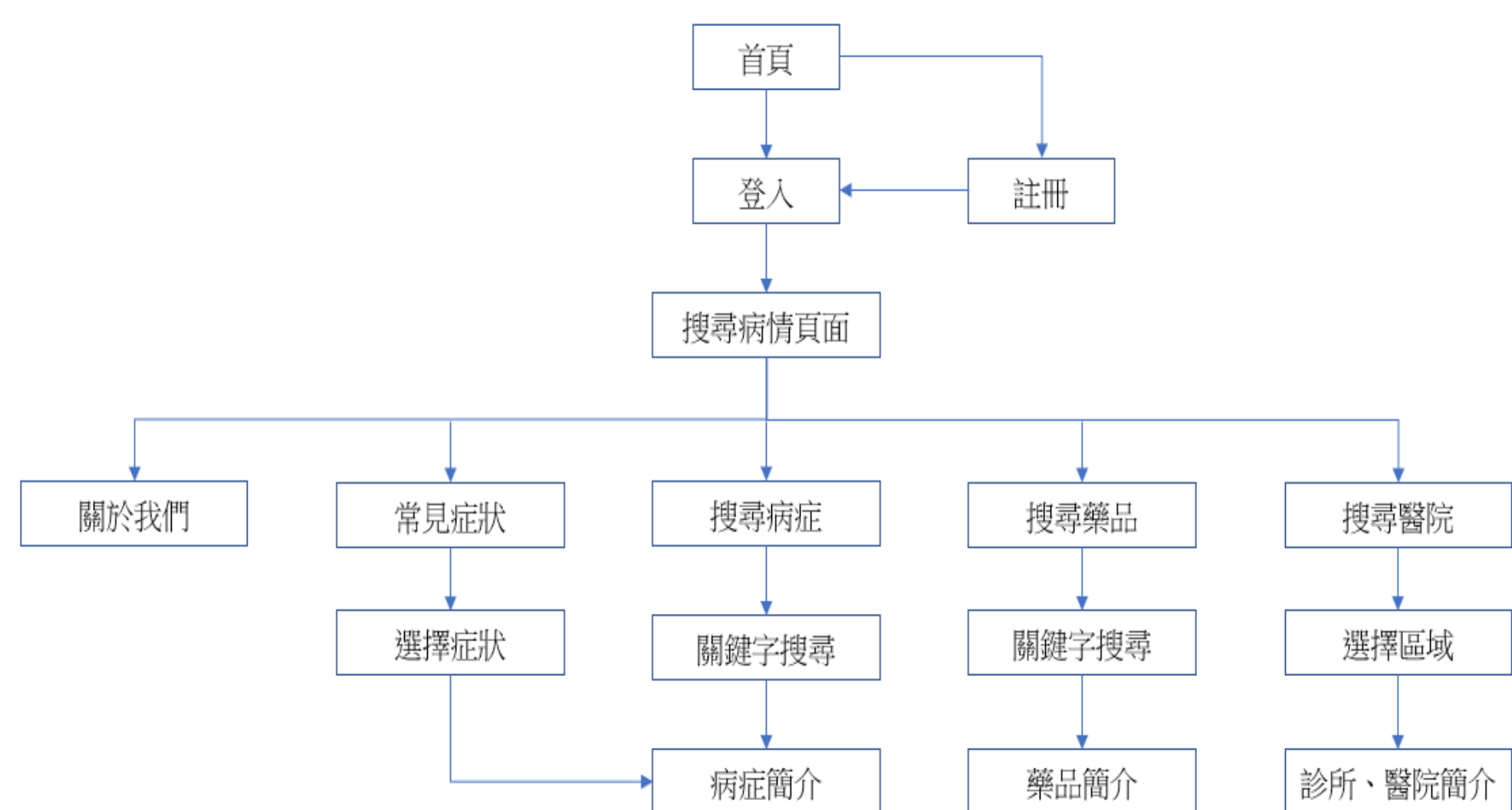
賴鍵元、江繼禾、陳彥勳、李靜怡、聶世昕
亞東科技大學資訊管理系

創作動機

現代提倡健康運動，有很多管道可以了解保健知識，但因網路上的資訊五花八門，大眾容易在得病時接受錯誤的醫療知識，加上人口老化，看病焦慮和亂服藥的風險也隨之增加。市面上有少數傳播保健資訊的權威網站，各大醫院也有官網介紹疾病，但數量太少，以致於這些資訊無法有效的傳遞給大眾，因此，透過相關醫學權威網站，以及政府網站上提供的開放式資料，本研究建置一套醫療資訊查詢系統，以提供給廣大民眾參考使用。

創作方法

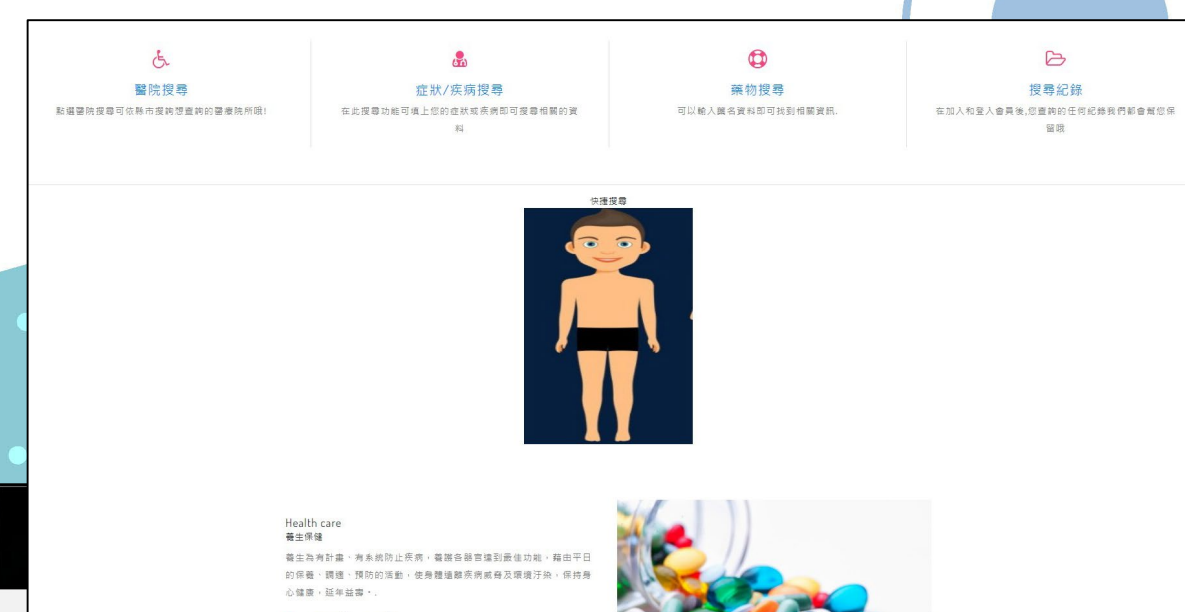
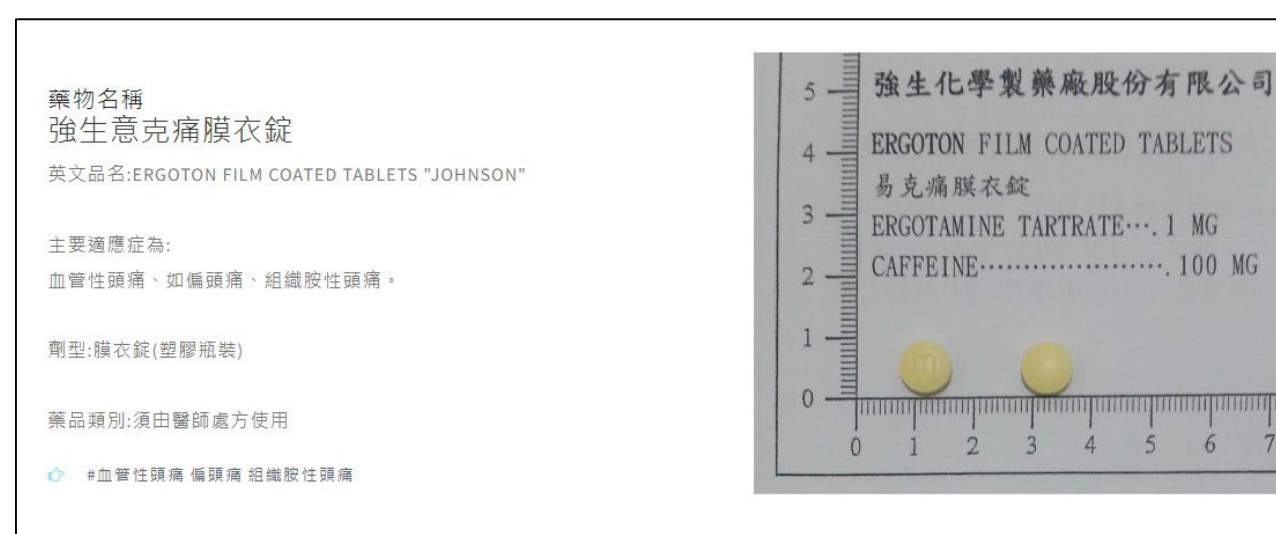
本研究運用Adobe Dreamweaver、phpMyAdmin、Apache HTTP、MySQL、Bootstrap等資訊技術，以建置本此醫療資訊查詢系統(響應式網站)，並透過政府開放資料平台之「未註銷藥品許可證資料集來源」、「藥品外觀資料集來源」與「醫療機構與人員基本資料」等資訊，以做為系統所需之醫療資訊來源。



結論與成果

因疫情時代人人變得越來越在乎健康，本研究完成跨平台之RWD響應式網頁系統其結論與成果如下：

1. 本研究收集了大量的開放式醫療資料，藥物資料有兩萬多筆；疾病資料包含頭部，頭部也包含耳、鼻、喉、眼，手部、腹部、腿部的所有疾病；醫院診所資料則包含台灣的七大城市：台北市、新北市、桃園市、台中市、台南市、高雄市及台東市。
2. 設計簡便和跨平台的響應式網頁系統，能讓民眾可以在不同平台下使用。
3. 提供四大功能：藥物搜尋、疾病搜尋、醫院診所搜尋和搜尋紀錄功能以及簡便的UI介面讓年長者方便操作。



聊天機器人應用於睡眠障礙管理

Chatbots for Sleep Disorder Management

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²亞東科技大學 資訊管理系 學生

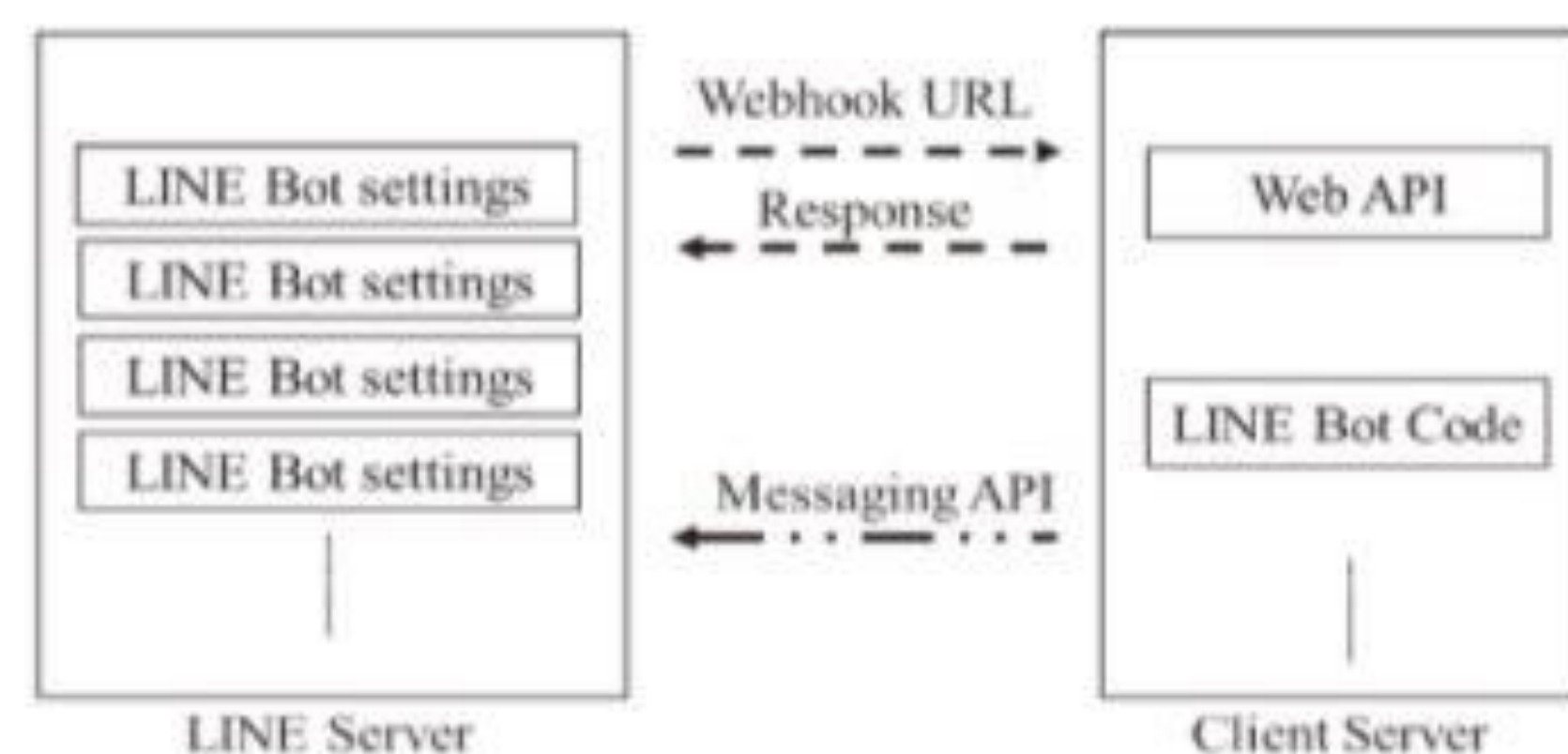
研究目的

根據統計，台灣每5個人就有1人吃安眠藥，許多人都有睡眠障礙問題，失眠不僅影響日常生活與工作，對整個社會與醫療都造成很大負擔。本研究嚐試透過聊天機器人，將專家系統問答集所建置的知識庫，和失眠患者進行基本睡眠障礙諮詢，更快速、更精準的回覆提問問題，以協助失眠患者自我評估造成自己失眠的因素及種類，再給予失眠患者所能改善或建議。

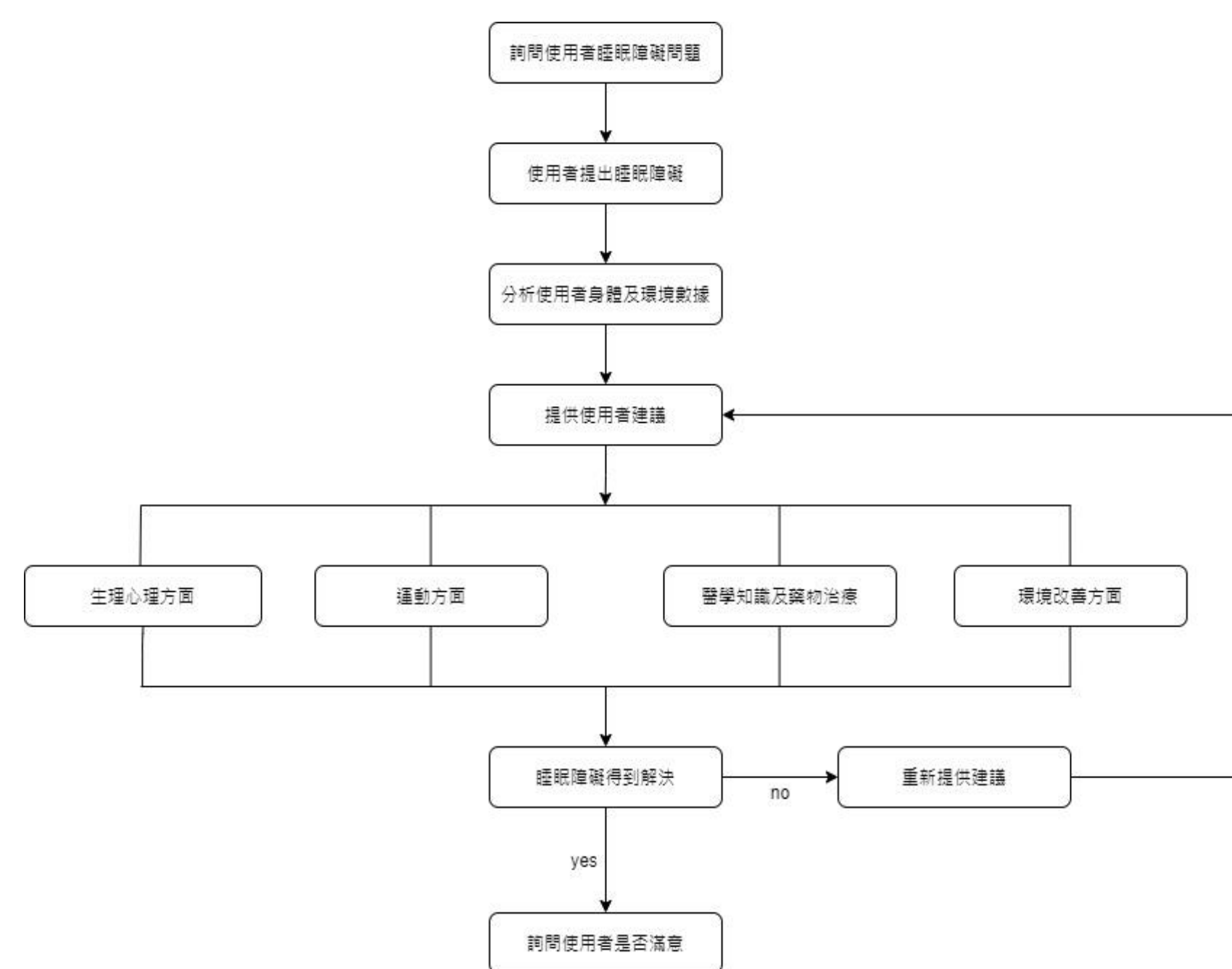
關鍵詞：LINE BOT、聊天機器人、睡眠障礙

研究方法

本研究主要是透過LINE提供的Messaging API(訊息應用程式介面)建立聊天機器人，並使用Node.js作為JavaScript的執行環境，來開發一個Client Server架構應用程式，架構如圖所示。LineBot伺服器或稱Webhook伺服器的功能包含實作Web API伺服器完成Webhook URL，能夠接收Line Server的HTTP HOST請求，並解析JSON資料字串、LineBot Code接收Line使用者的事件訊息，並使用Messaging API對Line使用者傳送訊息。



研究架構圖



睡眠障礙諮詢流程圖

研究結果

本研究所開發的睡眠障礙聊天機器人採用生心理、醫學及藥物、環境、運動等議題面向，協助失眠患者找尋最佳的解答，LINE BOT聊天機器人功能和睡眠障礙諮詢流程如圖所示。

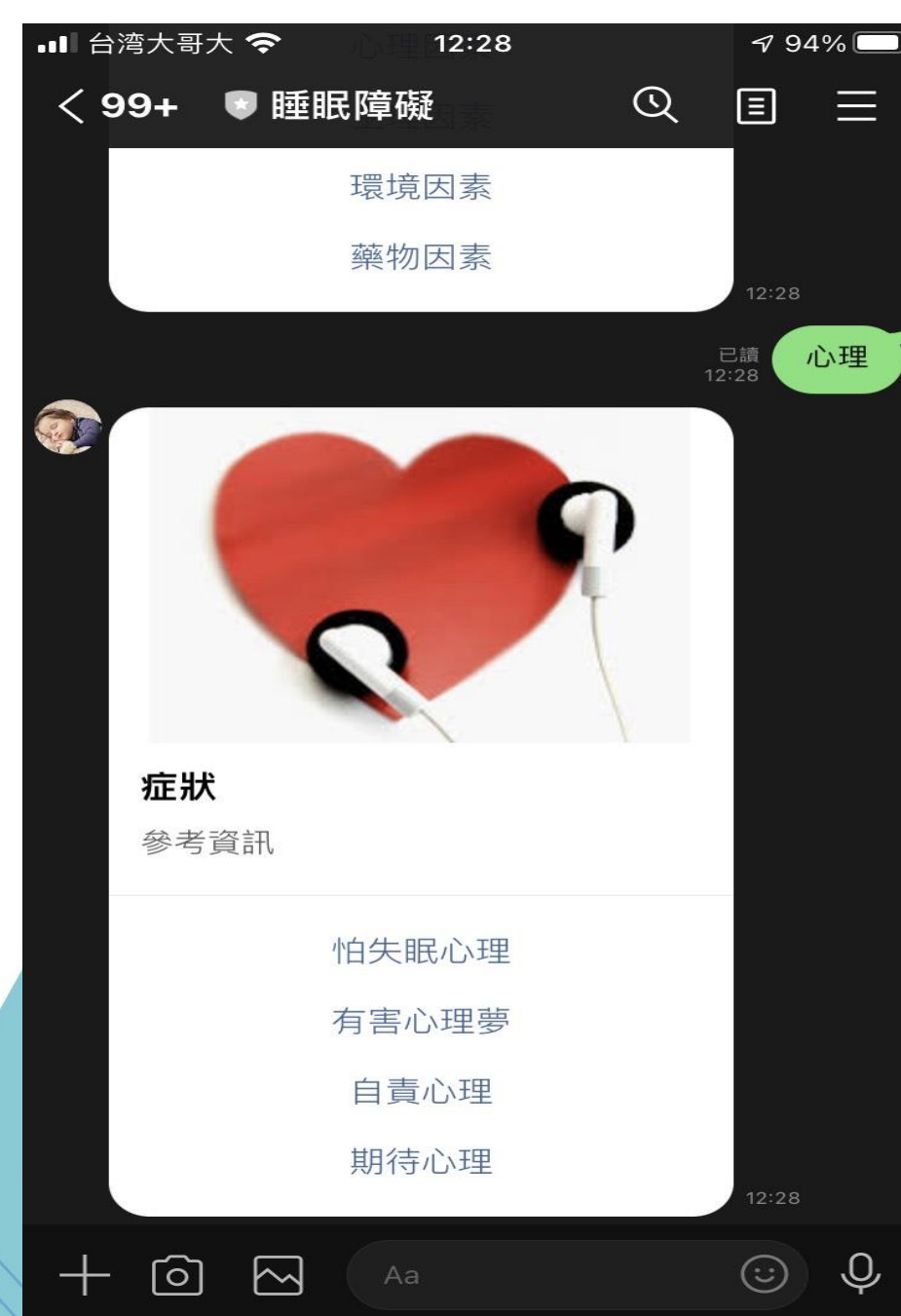
本研究所開發的LINE BOT聊天機器人功能畫面



睡眠障礙主選單



睡眠因素選單



心理因素選單



失眠種類選單