

論文編號	論文名稱
A001	A Study on Leading Chronic Diseases among the Elderly: A Case Study of Alian District of Kaohsiung, Taiwan.....30
A002	愛滋病個案管理師實務經驗之研究.....31
A003	探討非英語系大學生之寫作策略應用情形-以健康日照中心主題為例.....32
A004	以二層行地區為背景—探討口述歷史課程之敘說探究.....33
A005	繪圖協同平台之資訊品質、網路自我效能與使用者之關聯性研究.....34
A006	運用非侵襲性正壓呼吸器改善一位肺炎病人併發左主支氣管吐氣末動態壓迫致左肺塌陷之低血氧.....35
A007	競爭式選擇為基礎之鯨魚演算法應用於心臟疾病診斷分析.....36
A010	分析技職院校的大學生對於科技英文之閱讀困難.....37
A011	The Application of Social Strategies into Smart-Technology English Courses for Technological College Students.....38
A013	室內環境感測器物聯網系統建置.....39
A014	照護一位末期腎病變病人初次接受腹膜透析之護理經驗.....40
A015	5A 顧客體驗路徑社群行銷—設計與實踐.....41
A016	金控推動 EAP 後內部員工服務成效-以 IPA 探討.....42
A017	護理人員工作滿意度與工作壓力及主管支持與離職意願相關性.....43
A018	Using Machine Learning to Prediction of Functional Outcome among Patients with Ischemic Stroke.....44
A019	Application of Novel Wearable Medical Device for Remote Monitoring of Coronavirus Patients with Chronic Diseases.....45
A020	使用人工智慧探討肝移植患者移植後無效性之預測.....46
A021	Application of Information and Communications Technology to improve the effectiveness of personnel consistency and performance evaluation.....47
A022	民間救護車出轉院醫療品質調查-以南部某救護車營業機構為例.....48
A023	關鍵醫療場域環境感測模組研製及數據分析與優化預測.....49
A024	運用組合式教學技巧於提升胸腔內科病房護理師穿脫連身型防護衣之正確性.....50
A025	探討建置藥理學測驗平台(PRC)之臨床效益-以中部某醫學中心的 PGY 藥師為例.....51

論文編號	論文名稱
A026	智慧出院準備服務系統發展與應用成效之研究.....52
A027	導入精實六標準差及醫療照護失效模式與效應分析：急診生化檢驗報告時效管理.....53
A028	Formulating a Predictive Model for Developmental Delay Children Screening by Machine Learning.....54
A029	「COVID-19」之認知、態度與預防行為之調查研究-以退休民眾為例.....55
A030	free 還是福利，即使是 free 還是不參與-以嘉義市某失智據點經營為例.....56
A031	照護一位痛風引發蜂窩性組織炎個案之護理經驗.....57
A032	如何有效推動社區家庭暴力防治工作—以某縣政府為例.....58
A033	照護一位肺炎合併敗血性休克之重症患者成功脫離呼吸器之護理經驗.....59
A034	購買空氣清淨機提高預防空氣污染之相關影響因素分析-以在職專班為例.....60
A036	第二型糖尿病與其他疾病之關聯：關聯規則法之應用.....61
A037	癌症資源中心諮詢服務使用之分析探討.....62
A038	南部某區域醫院乳癌病人 24 小時電話諮詢服務調查分析.....63
A039	醫療影像辨識新興技術預測-以專利分析法探討.....64
A040	一位直腸癌病人腸造口術後面臨身體心像紊亂之護理經驗.....65
A041	探討南部某區域教學醫院民眾的檢驗健康識能以提升醫療照護品質.....66
A042	臨床醫學實驗室之前瞻性風險分析.....67
A043	脊椎手術病人術中使用脂肪墊降低壓瘡發生之個案分析.....68
A044	高齡者從事志願服務對自身健康促進的研究：以北部某非營利機構志工為例.....69
A045	民俗調理顧客滿意度與忠誠度之探討：以傳統推拿整復為例.....70
A046	整復推拿之魚腰穴刮痧對睡眠品質與其滿意度探討.....71
A048	探討臨床護理人員對手術前禁食的知識程度與影響因素.....72
A049	使用自動繳費機改善民眾等待批價之成效分析.....73

論文編號	論文名稱
A050	Acute Myocardial Infarction Software Technology-Aids Decision (AMISTAD) system for reducing the door-to-balloon interval in ST-segment elevation myocardial infarction..... 74
A051	Artificial Intelligence Aided Early Warning System of In-Hospital Cardiac Arrest..... 75
A052	建構視訊診療系統以因應流行疫情之研究..... 76
A054	臨床研究協調員和臨床研究護理師之專業發展與困境..... 77
A055	探討多媒體衛教影片對白內障門診手術病人返家後自我照顧認知成效 78
A056	An Interactive AIoT-enabled Outcome Prediction System in Emergency Department..... 79
A057	影響醫療專業人員持續使用電子轉診平台之因素與使用成效 80
A058	以 SERVQUAL 服務品質模式探討產婦生產服務品質..... 81
A059	探討跨領域問題導向學習(PBL)團隊對於高齡健康議題之學習成效與創造力 82
A060	Optimal timing for patients with respiratory failure to try weaning the ventilator: Building, implementation and clinical integration of artificial intelligence prediction models 83
A061	探討兩性在家庭長者照顧上的角色認知、經驗與感受..... 84
A062	探討長期照顧機構員工資訊素養對於組織知識管理能力之影響..... 85
A063	提升門診跟診人員服務滿意度..... 86
A064	社區民眾參加健康促進活動意願之相關因素探討 87
A065	AI based model for predicting major adverse cardiac events in Cardio-Oncology 88
A066	牙科病人對齒顎矯正的認知和口腔健康生活品質之研究-以中部地區牙科診所為例..... 89
A067	南部地區老人認知型活動參與程度和認知障礙關聯性分析 90
A068	提升剖腹產執行產後即刻肌膚接觸率之研究..... 91
A069	經產婦於第三妊娠期胎死腹中的護理經驗..... 92
A070	芳香療法之知識，態度與行為-以中台灣成人為例 93
A071	Explore the public awareness on the importance and satisfaction of the pandemic-prevention policies for COVID-19 by Importance Performance Analysis 94
A072	心電圖信號中 P 和 T 點的混合偵測方法 95

論文編號	論文名稱
A073	以多元策略介入有效營造醫病共享資源團隊.....96
A074	檢傷培訓對急診護理人員成效探討.....97
A075	The Effect of Mechanical Bowel Preparation in Elective Colorectal Surgery98
A076	某護理之家降低住民吸入性肺炎發生率之改善專案.....99
A077	運用 AMISTAD 系統改善 ST 上升型急性心肌梗塞病人治療時效之研究.....100
A078	Evidence-Based Analysis on the Application of Case Management Model on Nursing Evaluation Problem Handling for Patients First Diagnosed With Cervical Cancer - With the Teaching Hospital in Southern Taiwan as Examples101
A079	長期照顧機構住民非計畫轉至醫院住院的風險因子和改善策略.....102
A080	Impact of Mechanical Bowel Preparation in Elective Colorectal Surgery-A Meta-analysis103
A081	「1922 防疫諮詢專線」客服人員對 COVID-19 之認知與態度調查104
A082	前瞻導向健康園區 AI 照顧導入服務項目探索研究-以嘉義縣民雄鄉為例.....105
A083	農業區之醫療機構病媒防治方式成效評估.....106
A084	建構基層診所知識地圖之行動研究.....107
A085	護理人員復原力與慈心滿足、慈心疲倦之相關研究-以組織氣候為調節變項108
A086	急診護理人員對兒童虐待通報的知識、態度及行為-以南部某醫學中心為例109
A087	應用機器視覺技術於驗孕試片分析判斷之研究110
A088	民眾對於行動應用程式使用意圖之研究-以南部某區域教學醫院為例.....111
A089	術後頸部椎間盤突出病人醫療品質之研究.....112
A090	血液透析患者家屬對預立醫療照護諮商與病人自主權利法之知識.....113
A091	機器學習上的攻擊之研析114
A092	探討 Deepfake 影片生成方法.....115
A093	Satisfaction with Mobility Assistive Technology of a PPS User for a Healthy Life: A Case Report.....116
A094	以創新擴散模式探討個體使用智能開關之影響因素.....117

論文編號	論文名稱
A095	整合 ISSM 模型及 ECT 模型探討護理人員學習數位化資訊系統使用程度之影響..... 118
A096	3D 列印四連桿按壓裝置應用於零接觸酒精消毒..... 119
A097	應用深層類神經網路於大腸鏡影像之息肉分類..... 120
A098	A Study on the Factors affecting Retirement Plans Of Taichung City Residents 121
A099	機構照顧服務員的失智症照護知識、態度與其專業生活品質之探討..... 122
A100	剩餘藥品檢收調查之相關問題探討..... 123
A101	長照機構中藥事照護服務執行之探討..... 124
A102	居家藥事照護對多重用藥者潛在不適當用藥改變研究..... 125
A103	民眾廢棄藥物處理方式意向調查研究..... 126
A104	口罩實名制中藥師對口罩地圖認同調查..... 127
A105	兒童脫水入院患者體溫與新興唾液生化指標之關聯性..... 128
A106	基於智慧型行動裝置開發監測血液生化指標之感測試片..... 129
A107	樂觀性、睡眠品質及生活滿意度—以社區成人為例..... 130
A108	加密影像上使用區塊交換在加密前保留空間之可回復資訊隱藏技術..... 131
A109	跨領域課程規劃及產品設計..... 132
A110	高齡全人照護問題導向學習(PBL)課程特性與執行成果探討..... 133
A111	員工網路素養與長照機構知識管理能力相關性探討..... 134
A112	交互教學法結合即時反饋系統於國中學習障礙學生閱讀成效之分析..... 135
A113	建構藥事照護服務平台之研究..... 136
A114	The Effects of Chlorhexidine on the Retention of the Composite Resin Filling Using Etch-and-rinse Adhesive 137
A115	影響外傷性顱腦損傷患者住院天數的因素..... 138
A116	病人住院經驗調查—以南部某醫院為例..... 139

論文編號	論文名稱
A117	以關聯規則學習法與社會網絡分析法萃取皮膚專科知識之應用..... 140
A118	失智症個案初入住長照機構適應遷移壓力之護理經驗..... 141
A119	建置銀髮族互動諮詢平台 142
A120	一位再發性氣胸行胸腔鏡手術個案之護理經驗 143
A121	Development of Biomimetic LDL Removal Filter 144
A122	A new redox intercalating probe for electrochemical isothermal nucleic acid amplification platform..... 145
A123	現有 3D 列印機器列印噴頭加熱系統之精進..... 146
A124	低維奈米材料成長特性及其製程參數機器學習之優化研究 147
A125	探討青黴素皮膚測試對青黴素過敏之臨床效益 148
A126	建置以職能為導向的醫院學習歷程系統 149
A127	運用精實手法透過資訊系統提升手術室醫衛材管理效能之成效..... 150
A128	REDCap (Research Electronic Data Capture) 系統架設及應用探討醫事人員使用之滿意度研究-以科技接受模式為例..... 151
A129	The relationship between work stress and physical and mental health-Taking the pharmacist of New Taipei City Community Pharmacy as an example 152
A130	矯正機關員工健康促進生活型態及其相關因素-以某監獄為例 153
A131	整合價值信念規範理論和計劃行為理論探討消費者有機洗髮精購買意願 134
A132	臺灣住院之壓傷患者處遇之研究—以南部某區域醫院為例— 155
A133	大學生健康認知與健康生活方式對肥胖問題影響之研究-以南部某大學為例 156
A134	探討音響數位化在線上直播演唱會之應用..... 157
A135	探討導入安寧護理紀錄資訊化護理人員使用之滿意度..... 158
A136	運用憑證簽核資訊化，有效降低內容錯誤與縮短核銷時間 159
A137	應用禁忌搜尋演算法求解旅行商人問題 160
A138	消防組織編制對消防救災效能影響之研究-以新竹縣為例..... 141

論文編號	論文名稱
A139	降低血液腫瘤科病房退藥錯誤率..... 162
A140	智動藥盒設計研發..... 163
A141	民眾用藥態度與用藥行為之探討..... 164
A142	基於深度學習方法之類流感發生率預測..... 145
A143	智慧生理量測系統之成效評估..... 166
A144	數位音樂應用於國小五年級音樂教學之學習滿意度研究..... 167
A145	以深度學習方法預測肝炎患者之肝硬化進程..... 168
A146	高雄某醫院接受免疫治療病患的概況..... 169
A147	三高患者專用運動健康管理 App..... 170
A148	利用 APP 結合 Drupal 報修平台以提昇資訊問題維修品質..... 171
A149	應用自建手機簡訊人機介面以提昇伺服器主機故障處理流程..... 172
A150	Factors Influencing Doctors' Health: A Case Study of Modern Medicine Clinics in Nantou..... 173
A151	運用統計方法分析 TCGA 資料庫以及自然語言處理方法辨識 PubMed 的文章來尋找具有研究潛勢的乳癌致癌或抑癌基因..... 174
A152	人格特質與就業選擇關係之研究-以某大學部學生為例..... 175
A153	醫療機構如何跨領域服務創新？以遠距健康照護服務設計為例..... 176
A154	Association of use of rehabilitation services with development of dementia among patients with rheumatoid arthritis: analysis of domestic data in Taiwan..... 177
A155	Acupuncture may reduce the risk of type 2 diabetes mellitus in patients with rheumatoid arthritis: a longitudinal study in Taiwan..... 178
A156	Psychometric Evaluation of the Arthritis Self-Efficacy Scale in Chinese adults with rheumatic diseases..... 179
A157	從年輕族群的觀點建構年長者創新服務..... 180
A158	台灣南部年輕乳癌病人腫瘤性質及治療項目之探討..... 181
A159	多元教學策略運用提升護理人員進階之成效..... 182
A160	應用醫護類數位教材於提升學習成效-以藥理學為例..... 183

論文編號	論文名稱
A161	自動驗證錯誤因素之影響性研究..... 184
A162	應用擴增實境技術提升學童環保知識之成效探討 185
A163	軟體定義網路上的攻擊與防護之研析 186
A164	尿囊素之生物可利用性評估 187
A165	以深度學習增進情感分析為基礎之行動個人化情緒照護..... 188
A166	系統性文獻回顧探討醫院快速反應團隊配合早期警示評分 189
A167	資訊防疫 - 醫院防疫守門員 190
A168	探討推動社區中高齡者手機學習之成效 191
A169	運用智慧結構化設計提升病歷標準化完整性..... 192
A170	探討中年工作者對於退休後的生涯規劃 193
A171	探討民眾對智慧醫院就醫之行為意圖：延伸計畫行為理論之觀點..... 194
A172	提升主要照顧者鼻胃管照護技能之衛教方案..... 195
A173	Study on Artificial Intelligence Education in an AI Society 196
A174	Study on the Construction of Intelligent and Healthy with Social Innovation to Promote the Ecosystem of Innovation, Entrepreneurship and Creation 197
A175	Study on the Identification of Tea Species and Producing Areas by DNA SNP and a Large Database of Dual-wavelength Proteomics Fingerprints 198
A176	System of Multi-level Authenticity Identification of High-value Natural Products..... 199
A177	利用智慧眼鏡建立科技輔具 200
A178	利用即時影像辨識建置捷運站人員跌倒警示系統之研究..... 201
A179	利用邊緣運算進行禁止進入場域之人物偵測..... 202
A180	輔具鍛造件之數位化金相辨識方法..... 203
A181	雷射針灸治療耳鳴之系統性回顧及薈萃分析..... 204
A182	以人臉辨識為基礎之智慧藥盒系統設計與實作 205

論文編號	論文名稱
B001	病人急救記錄與出院狀況之探討-以中部某醫院為例 206
B002	探討敲擊音樂對社區住民情緒慰藉之成效..... 207
B003	民眾對醫院自助式服務科技使用之研究—以某區域醫院為例 208
B004	肢體語言辨識系統的加值應用-與機共舞..... 209

A001

老年人慢性病之研究—以台灣高雄市阿蓮區為例

A Study on Leading Chronic Diseases among the Elderly: A Case Study of Alian District of Kaohsiung, Taiwan

黃瓊葦

嘉南藥理大學研究員

deepblue139@gmail.com

摘要

本研究的重點是探討南台灣阿蓮地區之某診所患者的慢性病類型。研究資料收集方式主要來源是質性研究法，參與者為某診所的資深主治醫生。由於阿蓮地區的人口已老齡化，前往診所就診的患者都是慢性病的高風險族群，許多老年人罹患退化性關節炎、高血壓、糖尿病和肝病等。醫生提及老年人，必須定期做健康檢查、保持健康、降低健康問題並在早期階段接受診斷和治療。

關鍵詞：高血壓、心血管疾病、慢性疾病

Abstract

This research focuses on the Alian District of Kaohsiung City, a countryside district in the southern part of Taiwan, and examines the leading chronic diseases and health problems of the residents. The research data is mainly derived from the interviews with a chief doctor, who specializes in gastroenterology and has been in service at a local clinic for more than 30 years. Due to the population aging in Alian District, the average age of the patients visiting the doctor's clinic is above 50, the high-risk age group for chronic illness. From the data collected, the researcher observed that the major chronic diseases or health problems of the patients with age above 50 are cardiovascular diseases, high blood tension, and diabetes. Patients whose age are above 65 may also suffer from arthrosis and calcification. In addition, since agriculture is the primary industry of Alian District, patients who work as farmers tend to be diagnosed with liver diseases due to the use of pesticide. Still, a few patients are having uncommon chronic diseases such as AIDS and pulmonary tuberculosis. There are some suggested precautions and countermeasures against chronic diseases and health problems. The doctor concluded in his interview that calcium and Viartril-S ingestion and regular free medical checkup service provided at the district public health center could help residents in Alian District, particularly the senior ones, maintain their health, reduce health problems, and acquire diagnosis of chronic diseases at an early stage.

Keywords: high blood tension, cardiovascular diseases, chronic diseases

A002

愛滋病個案管理師實務經驗之研究

Study on the Practical Experience of AIDS Case Managers

呂昭芬

臺北市立聯合醫院
B2347@tpech.gov.tw

摘要

愛滋病隨著規律服用抗病毒藥物可延長感染者平均餘命的同時，也已被視為慢性疾病。愛滋病個案管理模式可有效提升感染者服藥順從性及生活品質，降低疫情散播機率，進而減少社會醫療成本支出。本研究採立意取樣，研究對象為截至 2019 年 11 月於我國疾管署網站登錄於北區愛滋指定醫院的個管師為研究對象，經篩選後共計 5 位接受訪談，旨在藉由深度訪談瞭解其管理實務經驗及需求，以做為日後政府培訓愛滋個管師之參考，以及積極提升愛滋感染者照護品質。經歸納後結果發現：一、選擇從事愛滋個管師因素為：轉換工作型態、發揮特殊專業性及自我職涯挑戰；二：愛滋個管實務內涵為：以愛為本，係跨領域且多元化的高度整合性護理專業；三、專業需求為：抱持正向態度及維持熱情、精進專業知識及轉介運用策略。故予建議：一、專業進階的認證制度亟待推廣，以提升工作滿意度及社會支持度，特別是個管師與感染者的親疏關係會影響其在個管計畫中的定位與重要性；二：政府制訂政策時應依醫事機構之性質及規模做適當人力調整之外，尤應落實院際之間的資訊整合，以及轉介資源的全面合作規劃；三、政府及愛滋專業團體應提供完善及便利的專業訓練課程或工作坊，並著重於諮商技巧及藥物治療新知。

關鍵詞：愛滋病、個案管理師、深度訪談

Abstract

With the regular use of antiviral drugs, AIDS can prolong the average life expectancy of infected persons, and it has also been regarded as a chronic disease. The AIDS case management model can effectively improve the medication compliance and quality of life of infected people, reduce the chance of spreading the epidemic, and reduce social medical costs. This study adopts intentional sampling. The research objects are the individual administrators who have been registered in the AIDS-designated hospital of North District on the website of Taiwan's Department of Disease Control as of November 2019 to November. After screening, a total of 5 interviews were conducted. Interviews to learn about their management practice experience and needs, as a reference for future government training of AIDS personal trainers, and to actively improve the quality of care for people living with HIV. The results are summarized as follows: 1. Factors in choosing to engage in HIV/AIDS management are: changing work styles, exerting special professionalism, and self-career challenges; 2: HIV/AIDS management practice connotation: love-oriented, cross-cultural field and diversified high-level nursing specialty; 3: professional needs are: to maintain a positive attitude and maintain enthusiasm, improve professional knowledge and refer to the use of strategies. Therefore, it is recommended that: 1. The professional advanced certification system needs to be promoted to improve job satisfaction and social support, especially the close relationship between a supervisor and an infected person will affect its positioning and importance in the personal management plan; 2: The government should formulate appropriate manpower adjustments based on the nature and scale of medical institutions, and in particular, it should implement comprehensive information integration between hospitals and referral resources. 3. The government and AIDS professional organizations should provide comprehensive and convenient professional training courses or workshops, focusing on consultation skills and new knowledge on drug treatment.

Keywords: AIDS, case managers, in-depth interviews

A003

探討非英語系大學生之寫作策略應用情形-以健康日照中心主題為例

黃瓊葦、蘇致遠

嘉南藥理大學研究員、嘉南藥理大學資管系教授

deepblue139@gmail.com, box5000@mail.cnu.edu.tw

摘要

大多數的大學生認為英文寫作是個艱難的任務、運用寫作策略能提高大學生的寫作技巧與技能。這項研究將探討在智慧健康日照中心的英語實踐場域中，非英語系的大學生在寫作中整體策略使用之情形，台南某大學的大學生將參與此項研究。這項研究是根據 Oxford (1990) 的六大類寫作策略理論，發展量化研究 (問卷)和質化研究 (訪談問題)。預期的研究結果: 在寫作時，學生較頻繁地使用直接策略 (記憶、認知和補償)、而較少使用間接策略 (後設認知、情感和社交)。大學生採用記憶策略的頻率為最高，而社交或情意策略的頻率則為最低。在進行寫作教學時，教師可以將寫作策略教學融合到課堂中，讓學生可以獨立學習以解決問題並成為自主的學習者。

關鍵詞: 寫作策略、直接策略、健康日照中心

A004

以二層行地區為背景—探討口述歷史課程之敘說探究

郭珮君、黃瓊葦、蘇致遠

嘉南藥理大學資訊多媒體應用系副教授、嘉南藥理大學研究員、嘉南藥理大學資管系教授
peichunkuo@mail.cnu.edu.tw, deepblue139@gmail.com, szj1974@gmail.com

摘要

本研究以二層行地方為背景的「口述歷史」課，探討此門課的教學內容、特色特點、教學理論、教學實踐、教材設計、教學評量和教師自思。研究方法採用質性研究的一對一訪談法和敘事法，研究者將訪談內容錄音及事後謄寫成逐字稿，並一進步的做詮釋。研究結果發現：此門課的特點是讓學生學會基本的操作、認知，接著學生到二層行附近的社區做口訪、記錄、在地創生與實踐所學；最後學生將訪談資料做分析、整理並製作成電子書。教師敘說自己多年來的教學經歷，省思在實踐場域的不順遂、重新擬定學習方針、調整學生學習步伐、也落實讓學生在二層行地區做深耕。

關鍵詞：敘事、口述歷史、地方創生

A005

繪圖協同平台之資訊品質、網路自我效能與使用者之關聯性研究

蘇致遠, 黃瓊葦*, 劉奕賢

嘉南藥理大學資管系教授、嘉南藥理大學研究員、國立成功大學電機工程學系研究員

szj1974@gmail.com, deepblue139@gmail.com, ihliu@twisc.ncku.edu.tw

摘要

本研究檢視大學生以合作學習方式繪製用例圖之成效。前期設置平台系統、後端管理系統和同步討論區，中期執行實驗設計，後期分析繪圖效益。總共有 26 位資訊管理系二年級學生參與協同製圖。在實驗的第一階段，分組使用雲端協同作業平台繪圖、主題為銀行；在實驗的第二階段，分組使用雲端協同作業平台繪圖、主題為學校系統；在實驗的第三階段，分組使用雲端協同作業平台繪圖、主題為醫療系統。實驗結果發現，資訊品質、系統反應、知覺易用、知覺有用、使用態度、使用意願和學習系統的經驗無顯著相關；性別與經驗呈現顯著正相關、網路自我效能和繪圖工具也呈現顯著正相關。學生對於合作平台的觀點為：可以同步進行方便、分工有效率、資料放在雲端存取方便；然而限制是畫面、格子及版面太小。

關鍵詞: 用例圖、同步討論、雲端平台

A006

運用非侵襲性正壓呼吸器改善一位肺炎病人併發左主支氣管吐氣末動態壓迫致左肺塌陷之低血氧

The Implantation of Noninvasive Positive Pressure Ventilation to Improve Hypoxemia of Left Lung Collapse in a Pneumonia Patient with Dynamic Expiratory Compression of Left Main Bronchus

葉育伶¹ 鄭愛琴^{1,4} 陳照坤² 鄭書帆³ 柯獻欽^{1,3} 紀宗呈⁵

奇美醫療財團法人奇美醫院呼吸治療科¹ 胸腔外科² 胸腔內科³ 長榮大學醫藥科學產業學系⁴ 醫研所⁵

ctil4013@hotmail.com¹

摘要

目的：運用非侵襲性正壓呼吸器(noninvasive positive pressure ventilation, NIPPV)來改善因肺炎致痰液累積合併支氣管吐氣期動態壓迫導致左側全肺塌陷(lung collapse)之呼吸照護經驗。

臨床評估：86歲女性，因頻繁嘔吐情形來台灣南部某家醫學中心急診求治，胃鏡顯示胃食道逆流、胃炎而住院治療。十四天後因院內肺炎產生痰液累積、呼吸喘，給予吸入氧氣濃度(fractional concentration of inspired oxygen, FiO_2):35%時，脈搏血氧飽和度(oxyhemoglobin saturation by pulse oximetry, SpO_2):91%，氧合能力(SpO_2/FiO_2 ratio, SF)由471下降至260，如表一，產生低血氧症；胸部影像呈現左肺全塌陷，如圖一；支氣管鏡顯示:痰液累積合併左支氣管吐氣期動態性壓迫導致左支氣管阻塞(dynamic compression in expiratory phase caused occlusion of left main bronchus)之左側全肺塌陷。

呼吸問題：痰液累積合併左支氣管吐氣期動態性壓迫之左側全肺塌陷導致低血氧症。

治療措施：醫療團隊決定以下措施

1. 依痰液培養結果為克雷伯氏肺炎菌，給予適當抗生素(如 Cefazolin)。
2. 化痰藥及拍痰加強肺部衛生清潔術來促進痰液排出。
3. 使用 NIPPV 來避免左支氣管吐氣期動態性壓迫，並維持吐氣末肺泡擴張，增加肺泡潮氣量。

結果評值：經三天 NIPPV 使用，胸部影像：左肺塌陷獲得改善(圖一)及 SF 值逐漸增加至462(表一)，並於四天後治癒出院。

結論與討論：此個案因院內肺炎且痰液累積合併左支氣管吐氣期動態性壓迫，致使左側全肺塌陷之低血氧症，醫療團隊除了抗生素治療肺炎並加強肺部衛生清潔術來排痰外，使用 NIPPV 來維持吐氣末肺泡擴張並改善氧合，於一週後治癒出院。

關鍵詞：非侵襲性正壓呼吸器(noninvasive positive pressure ventilation)、肺塌陷(lung collapse)、支氣管吐氣期動態壓迫(dynamic compression of main bronchus)

A007

競爭式選擇為基礎之鯨魚演算法應用於心臟疾病診斷分析

Tournament Selection-based Whale Optimization Algorithm and Its Application to the Heart Disease Analysis

劉振隆^{a*} 蕭耿達^b

^a義守大學資訊管理學系

^b義守大學資訊管理學系

*Email: jlliu@isu.edu.tw

摘要

隨著技術和社會的快速發展，人們比以前更容易地被感染疾病，尤其是心臟病。由於在現代社會中生活習性、飲食習慣和環境壓力因素等造成了心臟病的罹患率急劇地上升，因此心臟疾病目前已成為當今最常見的一般民眾疾病之一。然而，對於醫療技術而言，仍然難以診斷出是否罹患有心臟病的高可能性，故本研究提出了一種結合競爭式選擇方法的改良式鯨魚演算法（WOA），以提升原始 WOA 的性能，此種改良式鯨魚演算法並將應用於心臟病資料集的分析。首先，本研究使用了標準案例進行實驗來評估所提出的 WOA 的性能，然後將使用此改良式 WOA 應用於心臟病數據分析，並把計算結果和使用 Weka 軟體中的幾種數據探勘技術及原始 WOA 所獲得的結果作比較。改良式 WOA 和原始 WOA 使用標準案例函式進行實驗後，進一步地，將對 UCI 機器學習存庫中的 Staglog 資料集（心臟病資料集）進行數據探勘分析。使用的心臟病資料集包括 270 個案例和 14 個資料屬性，為了對心臟病資料集進行分類分析，我們同時使用了 WEKA 中的 J48、單純貝氏、貝氏網路與邏輯迴歸等四種傳統的數據探勘技術分類方法，原始型與改良式鯨魚演算法以及前面提到的 4 種 WEKA 中的演算法於心臟病資料集之分類分析結果將互相做比較，來評估心臟病資料集的分類準確性。由計算結果來看，本研究可以幫助醫學研究人員找到一個應用於醫學分析之有效的高精確度演算法。

關鍵詞：心臟疾病、鯨魚演算法、競爭式選擇、Weka

Abstract

With the rapid development of technology and society, people are easier to get infected than before, especially, heart disease. It becomes the one of the common civil diseases nowadays. The incidence of heart disease has increased dramatically because of the daily life, eating habits, and environmental stress in modern society. However, it is still difficult for the medical technology to diagnose whether there is a high probability of heart disease. Therefore, this study proposes an enhanced Whale Optimization Algorithm (WOA) and combined with a tournament selection approach to improve the performance of original WOA. The enhanced WOA is applied to the analysis of heart disease dataset. First, this work conducts several experiments using benchmark functions to evaluate the performance of proposed WOA. The computed results obtained using the present enhanced WOA for the heart disease dataset are compared with those obtained using several data mining techniques in Weka software and the original WOA. Some experiments are performed using benchmark functions by the proposed WOA and original WOA. Furthermore, this work conducts the data mining analysis of Staglog (Heart Disease Dataset), reported in the UCI machine learning repository. The heart disease dataset includes 270 instances and 14 attributes. To classify the dataset of heart disease, we also use four traditional data mining techniques included in the WEKA: J48, Naïve Bayes, Bayes Net, and Logistic Regression. The original and enhanced WOAs and the four aforementioned algorithms included in the WEKA are evaluated for the classification analyses of the heart disease dataset to compare the classified accuracy of heart disease dataset. From the computed results, this study can help medical researchers to find out an available algorithm with higher accuracy for the medical analysis.

Keywords: Heart Disease, Whale Optimization Algorithm, Tournament Selection, Weka

A010

分析技職院校的大學生對於科技英文之閱讀困難

黃瓊葦

deepblue139@gmail.com

摘要

本研究旨在探討技職院校的大學生在閱讀科技英文文章時，所面臨的閱讀困難。參與本研究的大學生總共有 20 位，科系各別有應外系、資管系、藥學系、多媒系、社工系和健康學程，女生各別有 10 位、男生各別有 10 位。本研究問卷的信度為 .874。研究結果發現：技職院校的大學生，面臨閱讀的最大困難是關於專業領域的單字、其次是一般的單字、第三則是文法。此外，英語閱讀困難與科系之間呈現顯著正相關、英語閱讀困難與性別之間則無呈現顯著相關。

關鍵字：科技英文、技職院校大學生、英文閱讀

A011

The Application of Social Strategies into Smart-Technology English Courses for Technological College Students

黃瓊葦

嘉南藥理大學研究員

deepblue139@gmail.com

Abstract

Using social strategies accurately is a good way to improve technological college students' reading skills. This study found that their learning difficulties were not good at solving problems. Hence, this study aimed to teach social strategy and designed teaching steps based on technological college students' reading weaknesses. The research tool included qualitative method and twenty students participated in the study. The results found that technological college students thought that using social strategies into smart-technology English helps them exchange opinions, express themselves, cooperate with peers, guide each other, learn efficiently, compensate one's weaknesses, solve problems easily, set goals, and think independently. From students' feedback and viewpoints, employing social strategy into solving reading problems is more unique, interesting, and they had more impressions on learning.

Keywords: *social strategy, smart-technology English, technological college students*

A013

室內環境感測器物聯網系統建置

Construction of Indoor Ambient Sensor IOT System

徐宏修^a 黃欣誼

嘉南藥理大學資訊多媒體應用系

^a hhhsu127@mail.cnu.edu.tw

摘要

國內人口老齡化大大增加了對醫療和長期護理服務的需求。政府以家庭為基礎和社區為基礎的長期護理服務，作為重要的政策目標。為推展老年人福利服務，幫助獨居或殘疾的老年人，在家庭環境中獲得適當的健康和安全保障。本研究利用 DHT11 溫溼度感測器、MQ2 氣體感測器模組，能檢測居住環境的溫溼度、氣體洩漏。檢測的氣體包括異丁烷、液化石油氣、甲烷、乙醇、氫氣、煙霧等。利用感測器的電位器輸出，與雲端物聯網平台 ThingSpeak 建立聯繫，提出跨領域整合的照護模式。

關鍵詞：*DHT11*、*MQ2*、*ThingSpeak*、*雲端*、*物聯網*

Abstract

It has greatly increased the demand for medical and long-term care services of the elderly people. The important policy goals for government are home-based and community-based long-term care services. The welfare services and help of elderly people living alone or with disabilities, are promoted to obtain appropriate health and safety in the home. This research uses DHT11 and MQ2 gas sensor module to detect temperature and humidity of living environment and gas leakage. The detected gases include isobutane, liquefied petroleum gas, methane, ethanol, hydrogen, smoke, etc. A cross-domain integrated care model is proposed by using the sensor's potentiometer output connection with ThingSpeak, a cloud-based IoT platform.

Keywords: *DHT11*、*MQ2*、*ThingSpeak*、*Cloud*、*IOT(Internet of Thing)*

A014

照護一位末期腎病變病人初次接受腹膜透析之護理經驗

Nursing experience in caring for a patient with end-stage renal disease receiving peritoneal dialysis
for the first time

莊惠琪

郭綜合醫院洗腎中心

chi8707@hotmail.com

摘要

本文描述一位 60 歲女性，突被告知須洗腎的緊急狀況下，決定接受腹膜透析治療，面對日後需長期腹膜透析，引起個案生理、心理衝擊之護理經驗。護理照護期間自 2018 年 5 月 8 日至 5 月 20 日，運用 Gordon 十一項功能性健康型態評估以觀察、會談、直接照護收集資料，評估確立個案有：焦慮、術後疼痛、知識缺失、照顧者角色緊張等健康問題。在照護過程中針對個案對腹膜透析不了解及對未來的不確定感導致焦慮之問題，提供資訊，運用陪伴與傾聽，使用放鬆技巧和安排腎友的經驗分享，強化正向態度接受透析。在術後疼痛上，適當使用藥物減緩疼痛，鼓勵表達其感受，聽喜愛音樂來轉移對疼痛的注意力。知識缺失方面，安排腹膜透析課程，運用多媒體教學，配合圖片及大字報，強化記憶。實際操作腹膜透析換液步驟，反覆練習回覆示教，增加對疾病和換液技術的知識。引導無照護經驗的案女，共同學習照顧注意事項和技巧之訊息，使案女緊張的情緒獲得改善。建議醫院增加腹膜透析人員家訪次數或結合居家護理師持續追蹤腹膜透析治療，達到全方位的護理照護。

關鍵字：末期腎病變、腹膜透析

A015

5A 顧客體驗路徑社群行銷—設計與實踐

Social Media Marketing based on 5A's Model: Design and Implementation

許苑齡^a 陳佩鈺^b 潘重君^c 夏自立^d 林麗敏^e 吳仁和*^f

^a義大醫療財團法人義大醫院護理部 ^b鴻海精密工業股份有限公司 ^c義大醫療財團法人義大醫院醫務管理室
^d正修科技大學資訊管理系 ^e美和科技大學護理系 ^f國立中山大學資訊管理學系
 jhwu@mail.nsysu.edu.tw

摘要

隨著資訊科技的蓬勃發展，醫療結構由傳統的到院實體服務轉變成實體跟虛擬服務串聯(易觀智庫，2016)，開始重視醫療行銷、醫院形象及顧客滿意度的提升。本文旨在探討醫療機構如何在有限的行銷資源，將醫療資訊與服務推廣給民眾，運用 Kotler et al. (2016)所提 5A 顧客體驗路徑 (Aware、Appeal、Ask、Act、Advocate)的概念，實踐於 A 醫院粉絲專頁的經營推廣與行銷操作。經由實際參與並執行十周的社群行銷活動的設計與操作，本研究整理歸納出社群行銷的實務性方法，透過實際執行也進一步驗證了本研究所設計之社群行銷方法的可行性，可有效幫助 A 醫院(1)有效且即時的訊息揭露、(2)增加 A 醫療服務與品牌能見度、(3)吸引潛在客群、(4)深化與客群的關係。透過本實務性研究，使 A 醫院更能有效瞭解及運用社群媒體的功能與特性，強化了其醫療服務網路推廣與數位行銷的能力。

關鍵詞：5A 顧客體驗路徑、行銷 3.0、社群行銷、醫療行銷

Abstract

These instructions give you guidelines for preparing papers for UHIMA 2020 conference. The abstract should summarize the contents of the paper within 500 words, written in English, A4 paper, single-spaced, justified, with a font size of 10pt Times New Roman. In the first page, the title should be written centered, in 14pt, boldface Times New Roman, initial capital letters and the authors' names should be written centered, in 12pt, Times New Roman, while affiliations, and e-mail addresses should be written centered in 10pt. Please do not number the pages for your paper. The file should be in Windows Microsoft Word 2013-2016 format.

Keywords: 5A Framework, Marketing 3.0、Social Media Marketing、Hospital Marketing

A016

金控推動 EAP 後內部員工服務成效-以 IPA 探討

陳勇志*、陳斐娟

國立雲林科技大學技術及職業教育研究所博士候選人

d10743005@yuntech.edu.tw

摘要

人力資源，是企業組織最重要的資產，每一個人的背景、環境、經歷等不同，過去能適應者職場文化，在轉換職場或職務時，不見得能持續有相同的表現，故企業透過員工協助方案(EPA)，讓員工有更好的適應與表現。過去的文獻顯示，EAP 能提升員工的服務素質與滿意度，因此今以 IPA(important-performance analysis, IPA)探討 EAP 對員工的滿意與影響程度。

本研究問卷量表，採用 SERVQUAL 量表，針對員工內部之服務品質與內涵，進行五個構面：可靠性、反應性、關懷性、保證性、有形性，配與 22 個問項進行問卷，受訪對象針對內部同仁之服務以五點尺度衡量，進行重要性評估及滿意度評估。

研究結果：第一象限：重視可靠性與保證性，其內容為：EAP 小組的熱誠行為、承諾與保密是滿意的。第二象限：EAP 小組對資源有高度的投入，但顧客反饋不足，資源有浪費之嫌。第三象限：IPA 顯示出關懷性有不足情況。第四象限：2 個構面列為重點，分別為可靠性與有形性；希望有更高度的承諾與良善的咨詢空間環境。

分析結果發現 EAP 之專案服務，員工最為重視即為隱私與保密性，而最不重視為外在的環境。故員工關懷專線協助人員若想能得到公司與同仁的支持，維持信任感，且需視為最重要的環節。

關鍵字：*EAP、Important-Performance Analysis、SERVQUAL*

A017

護理人員工作滿意度與工作壓力及主管支持與離職意願相關性

Correspondence Between job Satisfaction and Work Stress of Nurses and Supervisor Support and Turnover Intention

劉昱嫻

郭綜合醫院

zuson0916@yahoo.com.tw

摘要

護理人員的高流動率導致人力不足是目前面對的重要課題，本研究主要是瞭解南部某地區醫院護理人員的工作壓力、工作滿意度及主管支持和與離職意願的關係。採橫斷式問卷調查。南部某地區醫院護理人員，經解說同意參與為研究對象，有效問卷共61份。自填式研究工具包括基本資料、以及具有良好效度的護理人員壓力量表、主管支持量表、工作滿意度量表。整體Cronbach's α .85。結果發現護理人員工作壓力與工作滿意度、主管支持及離職意願有相關性($p < .048$ 、 $p < .011$ 、 $p < .049$)，工作滿意度與主管支持及離職意願有顯著相關($p < .001$ 、 $p < .020$)，主管支持度高護理人員工作滿意度愈高($p < .015$)，工作壓力與主管支持呈現正相關 $r = .285$ ， $p < .026$ ，工作滿意度與主管支持呈現正相關 $r = .545$ ， $p = .000$ 、與離職意願、職務及服務科別呈現負相關 $r = -.283$ ， $p < .027$ 、 $r = -.550$ ， $p = .000$ 、 $r = -.432$ ， $p < .001$ ，主管支持與工作壓力、工作滿意度呈現正相關 $r = .285$ ， $p < .026$ 、 $r = .545$ ， $p = .000$ ，與職務、婚姻呈現負相關 $r = -.427$ ， $p < .001$ 、 $r = -.273$ ， $p < .033$ ，離職意願與工作滿意度呈現負相關 $r = -.283$ ， $p < .027$ ，以複迴歸分析發現工作滿意度及工作壓力可解釋93.2%($p = .000$)變異量。主管的支持讓護理人員更具體增進工作價值感，以激發其對組織的滿足感和留職意願。

關鍵詞: 工作滿意度、工作壓力、主管支持、離職意願

A018

Using Machine Learning to Prediction of Functional Outcome among Patients with Ischemic Stroke

Mei-Chuan Lee¹, Chung-Feng Liu², Hui-Chen Su¹, Tain-Junn Cheng³

¹Department of Pharmacy, Chi Mei Medical Center, Tainan, Taiwan

²Medical Research Department, Chi Mei Medical Center, Tainan, Taiwan.

³Departments of Neurology, and Occupational Medicine, Chi Mei Medical Center, Tainan, Taiwan

Corresponding author: Mei-chuan Lee

E-mail: a0929717627@gmail.com

Abstract

Background:

Ischemic stroke is a major cause of disability among adults. In the past, researchers used the traditional ROC curves to prediction the functional outcomes to help physicians tailor future treatment plans. Furthermore, now we have another method a machine learning technique which could be applied.

Methods:

We used stroke registration database in Chi Mei medical center from 2009 to 2016 and then randomly divided the collected sample into 70% as the training data set and 30% as the test data set. Diabetes, hypertension, coronary artery disease, hyperlipidemia, arrhythmia, cancer, pneumonia, urinary tract infection, gastrointestinal bleeding, cranial hemorrhage, depression, bedsore, hyper/hypo-glycemia and hyper/hypo-natremia were selected into perdition model according to literature reviews and expert opinions. For statistic, several machine learning models were used to establish prediction model including logistic regression, random forest, support vector machine, k-nearest neighbors, lightGBM and multilayer perceptron model. We evaluated validation of the models by accuracy, sensitivity, specificity and the area under the receiver operating characteristic curve (AUC).

Results:

Finally, 5184 patients were collected as our study population. Machine learning was performed good calibration with an AUC of 0.667 for NIHSS prediction. Multilayer perceptron model could report better calibration, the AUC was 0.721.

Conclusions:

Machine Learning prediction models provide another accurate way to predict functional outcomes for ischemic stroke patients. Nevertheless, the performance of the prediction model should be further assessed in external and internal validation studies. In the future, we could combine the best fitting predictive models and medical information systems to approach precision medicine.

Keywords:

Machine Learning, Ischemic stroke, functional outcomes, prediction

A019

新型醫療穿戴式裝置在新冠肺炎下對患有慢性病新冠肺炎病人的遠程監控運用

Application of Novel Wearable Medical Device for Remote Monitoring of Coronavirus Patients with Chronic Diseases

Ching-Chun Huang^{1,3}, You-Ling Ding^{1*}, Kathryn E. Godwin¹, Ping-Chun Wang¹,
Yen-Pei Lu², Chia-Wei Chang², Tsung-Tao Huang^{2*},

¹ Seknova Biotechnology Co., Ltd., Taiwan – yolia.ding@seknova.com

² Taiwan Instrument Research Institute, National Applied Research Laboratories - tthuang@narlabs.org.tw

³ Institute of Bioinformatics and Systems Biology, National Chiao Tung University

摘要

全球各國新冠肺炎 (COVID-19) 感染人數不斷攀升，死亡病例也逐漸增加。中國疾病預防控制中心 (CCDC) 在《中華流行病學雜誌》中刊登了對新型冠狀病毒的研究，通過研究共 72,314 宗個案，發現心血管疾病患者最可能死於新冠肺炎併發症，其次是糖尿病、慢性呼吸道疾病和高血壓患者。因此，對醫護人員來說，若可利用無線裝置偵測病人的生理指標，實現無接觸式監測，就能大大降低前線防疫醫護人員的感染風險。對慢性病人來說，無線監測可早期偵測其突發的異常生理數值，即可避免因新冠肺炎而引發本身慢性病的緊急併發症而危及生命，從而得到及時救治。

資通訊是台灣聞名全球的產業，如何將資通訊技術導入生技產業並與醫療穿戴式裝置研發鏈結搭建 Bio ICT 平台，將會是台灣未來生技產業發展的最大優勢。本文就將介紹隨著資訊科技進步，行動裝置及穿戴式裝置普及，在如今全球疫情肆虐的當下，台灣一家新創公司智準生醫如何利用無線裝置遠程偵測病人的生理指標，實現無接觸式監測。國家實驗研究院為推動資通訊與生醫科技研發創新及跨領域應用研究，協助智準生醫進行產品安規測試及生物相容性測試等項目，期望藉由產學交流合作、研究成果分享，提升台灣 Bio ICT 的國際競爭力。

關鍵詞：新冠肺炎、遠程無線監測、穿戴式裝置、生醫資通訊

Abstract

The number of patients around the world diagnosed with the 2019 novel coronavirus disease (COVID-19) has been rising sharply, along with a more gradual, yet steady rise in the number of deaths. The Chinese Center for Disease Control and Prevention (China CDC) recently published a study of the novel coronavirus in the Chinese Journal of Epidemiology. Through an investigation of 72,314 cases, it was discovered that patients with cardiovascular diseases had the highest risk of mortality from coronavirus, followed by diabetes, chronic respiratory disease and hypertension. To reduce the risk of infection for frontline medical personnel and improve monitoring for patients with increased risk of complications, a wireless wearable monitoring device is in development. For patients with chronic diseases suffering from coronavirus, wireless monitoring can quickly detect and alert medical personnel of sudden abnormal biomarkers, thereby reducing time to treatment and decreasing number of life-threatening acute complications.

Taiwan is world-renowned for its information and communications technology (ICT) industries. The combination of ICT technology within the biotechnology industry, and the ability to build a biomedical ICT platform with wearable medical devices, will be Taiwan's greatest advantage in the future development of the biotech industry. With the current advancement of information technology and the growth of mobile and wearable devices, this article presents a novel wireless medical device used to remotely detect coronavirus patients' biomarkers for effective and safe contactless monitoring. This device is currently being developed by a Taiwanese biomedical startup, Seknova Biotechnology.

In order to promote the research and development of information communication and biomedical technology, National Applied Research Laboratories assists Seknova Biotechnology in conducting safety and biocompatibility tests of this medical device. It is hoped that through the industry-academia cooperation and the sharing of research results, the international competitiveness of Taiwan's biomedical ICT will be enhanced.

Keywords: novel coronavirus disease (COVID-19), remote wireless monitoring, wearable device, biomedical communications

A020

使用人工智慧探討肝移植患者移植後無效性之預測

Using artificial intelligence to investigate the prediction of ineffectiveness in liver transplant patients

孫定平^a 王家豪^a 李玲嫻^{a*}

^a奇美醫學中心移植醫學科

*cmh7590@mail.chimei.org.tw

摘要

基於醫學標準以緊急性需求為導向的肝移植，因其後生存期降低的患者並發症數量增加的不確定性，本研究分析回顧性了2019年在奇美醫學中心接受肝移植的9例成年患者（男性7例，平均年齡 53 ± 6 歲，女性2例，平均年齡 56 ± 6 歲），透過人工智慧的預測和建模，使用多變量統計方法研究對生存期分析，期望可提高肝移植患者移植無效性的學習效率預測之準確性，將使醫療團隊能夠在與器官分配有關的臨床決策中使用，作為日後有價值的參考工具。

關鍵詞：人工智慧、肝移植、預測

Abstract

Based on the urgent need-oriented liver transplantation of medical standards is uncertainty. And the increased number of complications in patients with reduced survival afterwards. This study retrospectively reviewed the 9 adult patients (7 males, average age 53 ± 6 years, 2 females, average age 56 ± 6 years) finished liver transplantation at Chi Mei Medical Center in 2019. Through prediction and modeling of artificial intelligence analysis, use multivariate methods to study survival analysis. It is expected to improve the accuracy of the implanted inefficiency prediction of learning efficiency in liver transplant patients. It will enable medical teams to use it in clinical decisions related to organ allocation as a reference tool for future benefits.

Keywords: *artificial intelligence, liver transplant, prediction*

A021

利用資訊與通信科技提升人員考核評估執行效率

Application of Information and Communications Technology to improve the effectiveness of personnel consistency and performance evaluation

林雅雲¹、鄭彬紘¹、陳昭儒¹

高雄醫學大學附設中和紀念醫院檢驗醫學部¹

Lin Ya Yun¹, Cheng Bin Hong¹, Chen Chao Ju¹

¹870454@ms.kmuh.org.tw

目的

人員訓練 (Training) 最主要的目的是期望人員在每項作業結果，能呈現一致性、可預測性與高品質表現，所以各實驗室對於報告的一致性職能評鑑很重視，需針對各項目訂定計畫、判定準則及採取追蹤行動。而檢驗科室需 24 小時輪班的單位多且人數多，在使用紙本系統進行人員訓練 (Training) 時，最常遇到的瓶頸是遇到長期休假時而無法即時得知訊息，導致平時各項能力考核時效性不良的問題，因此針對以上的問題提出改善計畫。

Plan

目前智慧型手機已是大眾必備的通訊工具，除了一般的電話功能外，在面對智能管理時代的來臨，因此我們希望透過串連目前被廣泛使用的資訊與通系科技 (Information and Communications Technology, ICT) 工具：LINE 通訊軟體及 Google 雲端表單，來輔助執行人員考核。我們結合 Line 群組傳遞即時訊息及使用 Google 雲端表單功能之 APP，建構人員一致性訓練課程及考核系統，以此系統性的方式來管理人員訓練。

Do

首先確認科室建立的 Line 群組是否有將所有人員邀請至群組內，開始使用群組進行即時訊息廣播，再利用 Google 雲端表單功能建立各訓練表單並發送至各人員預留之電子郵件地址。

Check

Line 群組名單及 google 表單建立完成後開始測試訊息傳送之確實性，最初部分同仁回傳表單時所送出電子郵件有出入，造成在收集報告時仍有遺漏。因此在重新檢討考核表單內容後，於表單內加入姓名及重新確認電子郵件之正確性。

Action

利用此兩種科技資訊系統輔助進行人員能力考核後，同仁不但能即時得知各種人員訓練考核重要訊息，並可即時利用電腦或手機進行結果回覆，有效改善紙本考核的限制並提高時效性。使用此雲端系統後，最近一次考核同仁對於「嚴重特殊傳染性肺炎宣導教育訓練」之成效考核，於二日內完成考核之比率高達 96%。因次計畫將持續使用此手法運用於未來科室執行各項能力考核的通知及填答。

Keywords: 人員訓練 (Training), 資訊與通系科技 (Information and Communications Technology, ICT)

A022

民間救護車出轉院醫療品質調查-以南部某救護車營業機構為例

Investigation on medical transfer quality of private ambulances - taking an ambulance business organization in the Taiwan south as an example

陳東昇

義守大學醫務管理學系碩士在職專班
isu10751002G@cloud.isu.edu.tw

摘要

本研究主要目的在探討民眾與民間救護車機構人員彼此間對於出、轉院醫療服務品質認知差異。以高雄市某醫學中心等級醫院合約民間救護車服務案件之個案與民間救護車機構人員進行服務滿意度問卷抽樣，共發出問卷 400 份，收回有效問卷共 388 份，使用 SPSS 25 版進行資料分析探討。結果顯示住院天數越少、無使用抽吸設備、個案本人的整體滿意度較高，住院天數越少、學歷大學專科者對專業知識滿意度較高，無使用抽吸設備者對於專業技能滿意度較高。民間救護車機構人員則以學歷為大學專科者自我專業態度及自我整體滿意度較高。民間救護車是重症、帶管路出轉院的第一線服務者，更應加強相關專業知識與技能，提升院際間轉院服務品質。

關鍵詞：民間救護車、出轉院、滿意度。

Abstract

The main purpose of this study was to explore the differences in the quality of discharge and medical service transfer between people and private ambulance personnel. The sample of the service satisfaction questionnaire was sampled from the private ambulance service staff of Kaohsiung Medical Center Hospital. A total of 400 questionnaires were sent. A total of 388 valid questionnaires were collected. Use SPSS 25 version for data analysis. The results showed that the hospital stay was short, no sputum aspiration equipment was used, and overall personal satisfaction was high. The higher the satisfaction with the professional knowledge of short-term hospitalization and university graduation, If no suction equipment is used, satisfaction with professional skills will be higher. The personnel of well-educated private ambulance institutions have a high self-professional attitude and overall self-satisfaction. Private ambulances are first-line service providers for serious illnesses. They should also strengthen relevant professional knowledge and skills to improve the quality of inter-hospital transfer services.

Keywords: civilian ambulance, transfer to hospital, satisfaction.

A023

關鍵醫療場域環境感測模組研製及數據分析與優化預測

Development, data analysis and optimization prediction of environmental sensing modules in key medical fields

陳涵琦* 王耀金

正修科技大學 資訊工程系所

*ali3855058@gmail.com

摘要

近期因嚴重特殊傳染性肺炎(COVID-19)延燒至全球，數位醫療生態逐漸的形成，以人民及醫院為中心結合資通訊做跨域整合，這其中包括無線網路及晶片提供者、軟體應用及系統供應者，正如智慧醫療因跨域整合而改變的商業模式及服務方式已是趨勢。藉由可攜式或穿戴裝置以利隨時掌握病患生理數值，讓病患隨時監控自己的健康之外，相對於病房的環境溫溼度及粉塵密度也要控制在安全範圍值，除了病房，手術室或是檢體存放室都是與溫溼度有相當大的關聯，必須有效讓醫護人員掌握最佳的管理，平時除了人工檢查、記錄之外，在這科技進步的時代也可利用人工智慧訓練感測器在溫溼度上做控制管理，雙管齊下，不但節省人力，同時醫護人員也能將大多心力投注在病人身上，以達最好醫療照護。

手術室溫溼度控管非常重要，依照《醫院潔淨手術部建築技術規範徵求意見稿》的要求，手術室的溫溼度必須要控制在一定範圍，溫度在 22°C~25°C，相對溼度 45%RH~60%RH，如太冷對於執行者的動作稍有一絲顫抖也許都會有重大疏失，反之溫度過高，病人易躁動，不利於開刀過程。利用感測器的機器學習訓練與醫療系統結合，在臨床使用上，可在下次開刀之前，系統即將溫溼度做調整並維持至優化的狀態。

另外，有醫療研究指出，濕度高於 65%會使人體呼吸系統和粘膜產生不適，免疫力下降，人體中一種叫松果腺體分泌出的松果激素量也較大，使得體內甲狀腺素及腎上腺素的濃度就相對降低，人就會無精打采相對工作效率較差，所以無論醫療院所、工作及家庭環境，適度的調整溫溼度及監控空氣品質，將所有採集的數據定時上傳，可經過機器學習訓練建模優化。

關鍵詞：智慧醫療、感測器、物聯網、大數據、優化預測

A024

運用組合式教學技巧於提升胸腔內科病房護理師穿脫連身型防護衣之正確性

Using combined teaching techniques to improve the correctness of nurses wearing protective clothing in Chest ward

黃孟淳^{1,2,*}、郭彥宏²

¹ 國立成大醫學院附設醫院護理部

² 嘉南藥理大學醫務管理系(所)

*通訊作者：黃孟淳；slisa782199@gmail.com

摘要

目的：2020 年爆發 COVID-19 全球化疫情，負壓隔離病房作為主要治療場所。本研究目的在運用組合式教學技巧，提升單位護理人員穿脫連身型防護衣之正確性，並提升協助 COVID-19 病人採檢後正確檢體打包步驟。方法：本研究透過製作影音媒體，發展一教學課程，包含舉辦連身型防護衣穿脫教學課程與協助採檢後檢體正確打包訓練課程。研究採單組前後測試，研究對象為胸腔內科病房護理人員，共 24 人，研究期間為 2020/3/1~2020/3/8。訓練前請同事觀看院內感染控制中心之連身型防護衣穿脫影片，再依課程安排時程進行兩兩一組的實際穿脫隔離衣訓練，配合一對一實境教學指導，並由指導員依照院內感染控制中心穿脫連身型防護衣查檢表進行評核。於課程前、後均進行測驗，針對照護 COVID-19 病人所需要準備的裝備、穿脫隔離衣的步驟及 COVID-19 咽喉採檢之檢體打包流程的知識與技巧。結果：調查發現單位同仁準備照護 COVID-19 所需的裝備由訓練前的 21.7% 提升到 100%。正確穿脫連身型防護衣由 17.3% 提升到 100% 可依照流程表完成穿脫除連身防護衣。COVID-19 檢體打包正確性由 43.5% 提升到 100%。另外單位同仁對於此訓練的舉辦時機、課程內容、師資安排皆給予正向回饋。結論：本研究針對研究結果提出研究建議，提供作為後續發展 COVID-19 照護服務設計之參考。

關鍵字：COVID-19、連身型防護衣、組合式教學技巧、咽喉採檢

abstract

Objective: The global epidemic of COVID-19 occurs in 2020, and the negative pressure isolation ward is the main place for treatments. The purpose of this study is to use combined teaching techniques to improve the correctness of unit nurses in putting on and taking off protective clothing, and correct steps of assisting COVID-19 patients sampling. Methods: This study developed a audiovisual media courses, which included wearing protective clothing for one-piece wear and assisting in correct sampling. The pre- and post-tests of the single group were used in the study. The study subjects were nurses in the chest ward, with a total of 24 people. The study period was from 2020/3/1 to 2020/3/8. Before training, subjects were asked to watch the film of wearing protective clothing in the infection control center of the hospital, and then carry out two-on-one practical training course of wearing protective clothing. The evaluation was performed according to the check-in form of the hospital infection control center for wearing protective clothing. Tests are conducted before and after the course. Knowledge and skills of the equipment required for the care of patients with COVID-19, the steps of wearing and removing protective clothing, and the package process of sampling for COVID-19 throat examinations. Results: The survey results found that the correctness of equipment preparation of the unit nurse for taking care of COVID-19 increased from 21.7% to 100%. The correctness of putting on and taking off the protective clothing can be completed according to the flow chart was from 17.3% to 100%. The COVID-19 sampling accuracy was improved from 43.5% to 100%. In addition, nurses in the unit gave positive feedbacks on the timing, course content, and teacher arrangements of this training. Conclusion: Results provides a reference for the subsequent development care service of COVID-19.

Keywords: COVID-19, Overall protective clothing, combined teaching skills, throat examination

A025

探討建置藥理學測驗平台(PRC)之臨床效益-以中部某醫學中心的 PGY 藥師為例

吳秉峰^{ac} 曾璿蓉^b 黃靖雅^{ad} 鄭奕帝^{ad} 謝右文^{ad}

^a 中國醫藥大學附設醫院藥劑部

^b 慈濟科技大學醫務暨健康管理系

^c 中國醫藥大學兒童醫院藥劑部

^d 中國醫藥大學藥學系

^a binfong20001@gmail.com

摘要

為提昇藥師藥學專業認知與臨床照護能力，我們以 *Davis's NCLEX-RN Pharmacology Review Cards* 的教材來建置藥理學測驗平台(Pharmacology Review Card, PRC)，同時利用可自我學習的電子化學習歷程檔案系統(E-portfolio)，來探討藥理學測驗平台對於畢業後二年期藥師(post-graduated young, PGY)是否有助於提升臨床專業認知。以中部某醫學中心的 30 位 PGY 藥師為研究對象，研究期間為 2018 年 1 月至 2020 年 3 月，採用學前評估(Cronbach's $\alpha=0.978$)及學後回饋問卷(Cronbach's $\alpha=0.954$)之李克特量表(5-point Likert scale)進行，並使用 2019 年 SPSS 統計軟體，數據以成對樣本 T 檢定進行分析；本次共發放 30 份問卷，有效問卷 18 份，問卷回收率為 60%(G power=0.8)。研究結果發現 PGY 藥師對於平均認知分數(1)病人安全與有效治療由 3.22 至 4.39，(2)病人生理舒適性與基本照護由 3.11 至 4.33，(3)病人健康促進與維持由 3.22 至 4.39，(4)與病人的應對技巧與諮詢由 3.22 至 4.22，(5)藥事照護由 3.06 至 4.39(總分 5 分)，認知能力皆有明顯提昇且統計上具有顯著差異($P<0.05$)。此外，PGY 藥師對於藥理學測驗平台的回饋與反應皆為良好，故可推論藥理學測驗平台是有助於提昇 PGY 藥師的學習效益與臨床專業認知；未來我們也將持續增加測驗題庫，來增進藥師自我學習與精進為目的。

關鍵詞：藥理學測驗平台(PRC)，臨床專業認知，PGY 藥師。

Abstract

To enhance professional cognition and care abilities in clinical pharmacy, we used *Davis's NCLEX-RN Pharmacology Review Cards* to build the platform of Pharmacology Review Card (PRC) in a self-learning electronic system (E-portfolio) and to explore whether PRC can improve the clinical professional cognition for post-graduated young (PGY). The study period is from January 2018 to March 2020. There are 30 PGYs in the medical center of central Taiwan, we use the pre-(Cronbach's $\alpha=0.978$) and post-(Cronbach's $\alpha=0.954$) surveys (5-point Likert scale) and analyzing for pair T-test within SPSS statistical software in 2019. A total of 30 questionnaires were distributed, 18 valid and 60% recovery rate (G power=0.8). The results of the study were (1) patient safety and effective treatment scores from 3.22 to 4.39; (2) physiological comfort and basic care scores from 3.11 to 4.33; (3) health promotion and maintenance scores from 3.22 to 4.39; (4) patient consultation skill scores from 3.22 to 4.22; (5) pharmaceutical care scores from 3.06 to 4.39 (5 total scores). The data for the cognition abilities of PGY has been improved and significant difference statistically ($p<0.05$). Besides, the feedback and response of PGYs are pretty good, so we can infer that the PRC platform is helpful to improve the learning efficiency and clinical professional cognition. We will continue to increase the test question bank and to enhance the self-learning of pharmacists in the future.

Keywords: *Pharmacology Review Card (PRC)* , *Clinical Professional Cognition* , *Post-graduated Young (PGY)*.

A026

智慧出院準備服務系統發展與應用成效之研究

陳哲君^a 蕭如玲^b

^a 醫療財團法人天主教聖馬爾定醫院

^b 嘉南藥理大學醫務管理系暨研究所

^b mayo5012@gmail.com

摘要

目的: 出院準備服務是經由各專業人員組成的團隊共同努力, 協助病人在住院期間能及早作好出院後的照顧準備, 因此跨團隊之資訊溝通及流暢之轉介流程是完備服務之關鍵, 因此本研究以某個案醫院發展之智慧出院準備服務系統為例, 探討其成功發展出院準備服務系統與臨床應用成效為目的。

方法: 智慧出院準備服務系統發展, 包括三階段: 第一為規劃階段, 首先蒐集出院準備服務之內容與相關團隊服務需求, 規劃系統應具備的功能與可行性分析。第二為系統分析階段, 根據使用者需求及出院準備服務個案管理流程來擬訂系統規格。第三為系統開發與評值階段, 包括系統程式撰寫、測試與評估。

結果: 智慧出院準備服務系統發展, 包含病患出院準備之個案篩檢功能, 於病人入院 24 小時內進行條件篩檢, 系統主動通知出院準備服務個管師, 評估出院後照顧需求; 透過院內會診系統進行跨專業醫療資源的轉介, 共同擬定與執行出院後照顧計畫。依需求評估連結出院後居家環境安置及輔具選擇系統做準備, 並整合社區資源系統選擇轉介長照相關機構或在宅、居家醫療關懷訪視服務。系統臨床應用成效包括: 轉介長照服務成功率提升, 接受出院準備服務個案同一疾病非預期再入院或急診率降低, 病人與家屬滿意度提昇。

關鍵詞: 出院準備服務、智慧系統、系統應用成效

A027

導入精實六標準差及醫療照護失效模式與效應分析：急診生化檢驗報告時效管理

郭玲姪^{a,b,*} 陳城菘^b

^a 郭綜合醫院 檢驗醫學部

^b 嘉南藥理大學醫務管理系(所)

一、目的：

精實的思維「傾聽顧客確認價值，避免浪費」。臨床實驗室須提供快速正確的檢驗報告給臨床顧客，滿足顧客需求。本研究應用精實概念改善急診生化檢驗作業流程浪費，提升效率達到精實核心價值「顧客滿意」需求。

二、方法：

運用精實六標準差(LSS, Lean Six Sigma)的 Lean DMAIC 流程改善步驟為主軸，融合醫療照護失效模式與效應分析(HFMEA)找出檢驗流程隱藏的系統性問題，進行精實策略方案(1)變更離心設定、(2)生化檢體前處理分流、(3)報告逾時資訊警示提醒與(4)由自動取代人工稀釋功能，以達時效管理效益。

三、結果：

透過精實改善顯示(1)急診生化報告平均時間：由 33.4 ± 2.0 分鐘縮短為 24.1 ± 0.5 分鐘($t=9.07, p=0.002 < 0.01$)。(2)急診生化檢驗報告逾時率由 10.6% 降低至 1.9% ($t=8.10, p=0.000 < 0.01$)；而標準差品質水準由 4.5σ 提升至 5.0σ 水準。(3)急診檢驗報告有 20% 急診加成給付，急診報告發出完成率由 89.4% 提高至 98.1%，可增加醫院收入。(4)急診報告時效滿意度調查由 3.7 提升至 4.04。(5)時間與動作研究：生化檢體傳送距離減少 10.0 公尺，急診檢驗結案時程大減 41.5%。

四、結論：

應用精實原則可改善檢驗報告時效，提升檢驗報告服務品質及臨床顧客滿意度，並增加醫院收入效益。

關鍵詞：精實六標準差、醫療照護失效模式與效應分析、檢驗報告時效

A028

Formulating a Predictive Model for Developmental Delay Children Screening by Machine Learning

Lin-Yen Chang¹, Hung-Pin Lien¹, Tin-Wai Lau¹, Chung-Feng Liu³, Jhi-Joung Wang³, Willy Chou^{1,2}

¹Department of Physical Medicine and Rehabilitation, Chi Mei Medical Center, Tainan, Taiwan

² Department of Recreation and Health-Care Management & Institute of recreation Industry Management, Chia Nan University of Pharmacy, Tainan, Taiwan.

³ Medical Research Department, Chi Mei Medical Center, Tainan, Taiwan.

Corresponding author: Lin-Yen Chang¹

E-mail: 890622@mail.chimei.org.tw

Abstract

Background:

Developmental delay may cause disability and would be a great burden to families and special education system. Early intervention specialists devote on improving this situation through early screening and proper referrals. Those children suspected delayed are referred to Children Joint Evaluation Centers for further early intervention. This research is aim for formulating a predictive model for screening developmental delay children by machine learning, so that can efficiently help specialists making clinical decision.

Methods:

All functional data was abstracted from one single joint evaluation center in southern Taiwan during January 2016 to December 2019. By literature review, developmental status was greatly influenced by several factors, such as preterm, seizure, child age, parents' education level, parents' age, patents' nationality and family income. A pilot predictive model was formulated with these factors and the initial evaluated score. And several machine learning models were used to establish this prediction model including logistic regression, random forest, support vector machine, k-nearest neighbors, lightGBM and multilayer perceptron model. Performance of the models was also evaluated by accuracy, sensitivity, specificity and the area under the receiver operating characteristic curve (AUC).

Results:

Finally, 519 cases were included for machine learning modelling in our study. Six machine learning algorithms were used and MLP (multilayer perceptron) performed better calibration for CDIIT(Comprehensive Developmental Inventory for Infants and Toddlers) Gross Motor Score prediction with accuracy of 0.750, sensitivity of 0.765, specificity of 0.739 and AUC of 0.844.

Conclusions:

Machine Learning prediction models provide a novel way to predict child's developmental outcomes for developmental delay families. With prediction models, parents will get more information about their child's further intervention suggestion and potential functional limits. Thus, further studies should be done in the validation of other developmental scoring prediction models. Furthermore we plan to develop a predictive APP for care-givers' education, visualizing the difference between different intervention resources, to help families making proper decisions.

Keywords:

Machine Learning, Developmental delay, Gross motor outcome, Prediction

A029

「COVID-19」之認知、態度與預防行為之調查研究-以退休民眾為例陳奕伶^{*a,c} 林為森^b^a嘉南藥理大學醫務管理研究所^b嘉南藥理大學老人服務事業管理系^c臺南市政府衛生局衛生稽查科^{*}a00134@tncghb.gov.tw**摘要**

全球化的產業鏈使得傳染病的流行性與嚴重度急速擴大，危及人類的健康、生存與安全。「嚴重特殊傳染性肺炎(Coronavirus Disease 2019, COVID-19)」自 2019 年底起開始擴大傳染，截至 2020 年 4 月 25 日，已累計約 273 萬例確診，逾 18 萬人死亡，蔓延全球 184 個國家。在臺灣退休民眾是最常從事旅遊的族群，加上易有慢性病且免疫力差，是罹患 COVID-19 重症的高風險族群，因此瞭解退休民眾對「COVID-19」之認知、態度與其預防行為是非常重要的議題。本研究採用橫斷式調查，以結構式網路問卷邀請 50 歲以上退休民眾進行填答，有效問卷回收 93 份。結果發現調查對象中有慢性病史占 31.2%，體位異常占 54.8%；受試者獲得知識資訊的主要來源為電視，次要為網路；最關心的議題依序為：治療方法、疫苗、口罩實名制。整體而言，退休民眾對「COVID-19」的認知程度達 96% 以上，但其中以違反居家檢疫的罰則認知相對較低；態度方面，「同意流行期間避免出國旅遊」占 95.7%，且今年有出國旅遊史只占 9.7%；「贊成政府的口罩管制政策領取口罩」為 67.8%。預防行為中，「戴口罩」為 95%，最需加強的行為是「每天監測體溫」僅占 53%。建議政府單位須針對退休民眾持續加強 COVID-19 傳染風險觀念，並強化相關知識及建立正向態度及行為，透過衛生機關及多元方式宣導，深化民眾防疫觀念。

關鍵詞：認知、態度、預防行為、COVID-19、退休民眾

A030

free 還是福利，即使是 free 還是不參與-以嘉義市某失智據點經營為例

free or welfare, still do n't want to participate even if it 's free-Take the manage of a dementia stronghold in Chiayi City as an example

吳俊儀^a 侯榮英^b 劉書羽^c 郭建麟^d

^a戴德森醫療財團法人嘉義基督教醫院失智症整合中心

^b戴德森醫療財團法人嘉義基督教醫院失智症整合中心

^c戴德森醫療財團法人嘉義基督教醫院失智症整合中心

^d戴德森醫療財團法人嘉義基督教醫院失智症整合中心

^a06384@cych.org.tw (僅留通訊作者即可)

摘要

台灣邁入老年化社會，老化失智人口數也突破二十九萬人大關，為了讓失智者家庭能夠有喘息，推動很多政策，這以失智照護其中最重要的失智據點經營作探索性研究。

很多極輕度及輕度的失智症患者卻抗拒參與失智症照護計畫中很重要一環-失智據點。

失智據點提供認知型的訓練，除醫療介入外，認知課程在延緩失智扮演重要的角色。失智共照中心在個案收案後，會提供個案居住最近的失智據點，讓延緩失智成為一條龍的服務。

失智據點服務是 free 的，但是 free 就是福利嗎?福利就可吸引個案來參與照護計畫嗎?這個"福利"在很多據點是引不起個案或家屬的興趣。前往與否就在家屬及失智個案與據點規劃者身上，因為願意參加的關鍵點不在 free 就願意參與，這問題出現在什麼地方?就是共照中心與失智據點跟個案關係連結及交通便利性上。因在嘉義市這地方，並不是免費課程、活動就會有人參與，個案及其家屬更在乎的是交通的便利性以及去據點是否可以帶給家屬以及個案什麼樣的吸引性的課程與喘息。

研究結論發現 free 不代表就是一個強而有力的磁鐵可吸引著個案前往據點參加延緩失智課程。案例中的據點在跟失智共照中心請求輔導後，中心用策略分析方式，了解箇中原因後，決定深化與家屬間的關係建立以及課程多元化、生活化，據點改變關係建立的模式與產品購買一樣，鎖定目標市場的所好。最後從據點個案數原來的 1 位，成長到目前的 12 位。所以投其所好不僅在商業上，在長照上也是需要。

關鍵詞：失智症、失智社區服務據點、吸引失智者的課程需求

Abstract

Taiwan enters an aging society, the number of aging and demented people exceeds 290,000, many policies have been implemented to allow demented families to respite, operate with the most important dementia stronghold in dementia care, and conduct exploratory research.

Many very mild and mild dementia patients resist participating in dementia stronghold, which is important in dementia care programs.

Cognitive training is provided in the dementia base, except medical intervention, cognitive courses play an important role in delaying dementia. After the cases are recruited, the Center for integrated Dementia Care will provide the dementia stronghold where the case lives nearest, let delaying dementia become a one-stop service.

The dementia stronghold service is free, but is it a benefit? Can welfare attract cases to participate in the care plan? The "free" in many dementia strongholds does not attract the interest of the case or family members. Because the key to the willingness to participate is not free, but the relationship between the Center for integrated Dementia Care and the case, and the transportation convenience of the dementia stronghold. Because in Chiayi City, the cases and their families will not attend only with free courses and activities but are more concerned about the convenience of transportation, and whether the dementia stronghold can bring attractive courses and wheezing to them.

The results suggested that free does not mean that a strong magnet can attract the case to the stronghold, participating in the dementia relief course. After requesting counseling from the Center for integrated Dementia Care at the stronghold in the case, the center conducted decision analysis, decided to intensify the relationship within family members, made the curriculum diverse and lively, the pattern of changed relationships in the demented stronghold as same as product purchase, targeted market preferences. Finally, the number of stronghold cases increased from 1 to 12. Therefore, catering to the preferences of others is not only necessary in the business, but also in long-term care.

Keywords: Dementia, Dementia Community Service Stronghold, Courses and needs to attract dementia

A031

照護一位痛風引發蜂窩性組織炎個案之護理經驗

Nursing experience of caring for a case of cellulitis caused by gout

洪萬富 a 詹雯月 a,b

a 吳鳳科技大學

b 臺中榮民總醫院嘉義分院

a,b wen0912183@gmail.com

摘要

本文是探討照護一位痛風傷口造成足部蜂窩性組織炎病人之護理經驗。護理期間為 2019 年 05 月 01 日至 2019 年 05 月 12 日，運用 Gordon 十一項健康功能型態的護理過程，藉由觀察、會談及收集資料進行評估，發現個案於有傷口疼痛、現存性感染、不遵從等護理問題，照護過程中，筆者運用傾聽、陪伴、協助、主動關懷問候、執行有效的護理措施與持續追蹤，針對問題所在，予以護理措施，並運用充能教學模式，以詢問、省思及增加個案與環境資源及能力，在住院期間不僅獲得到疾病的改善，出院後能規則服藥，飲食控制，戒掉不良習慣如飲酒、抽菸，每週以電話訪視關心個案，瞭解之後情形，讓個案獲得一個持續的照護品質，發揮連續性的護理功能，提供以個案為中心的個別性護理。

關鍵詞：痛風、蜂窩性組織炎、充能教學模式

Abstract

This paper explores the nursing experience of caring for a patient with foot cellulitis caused by a gout wound. During the nursing period from May 01, 2019 to May 12, 2019, Gordon's eleven healthy function-type nursing processes were evaluated by observation, talks and data collection, and the cases were found to be related to pain in wounds, existing sexual infections, non-compliance, etc., during which the author used listening and companionship, assist, active care greeting, implement effective nursing measures and continuous follow-up, address the problem, give care measures, and use the ability teaching model to inquire, think and increase cases and environmental resources and capacity, not only to get the improvement of the disease during hospitalization, after discharge can rule medication, diet control, withdrawal of bad habits such as drinking, Smoking, weekly telephone visits to see the cases of concern, to understand the situation, so that cases to obtain a continuous quality of care, play a continuous care function, to provide case-centered individual care.

Keywords: Gout, cellular tissue inflammation, energy-charge teaching model

A032

如何有效推動社區家庭暴力防治工作—以某縣政府為例

How to effectively promote the prevention and treatment of domestic violence in the community-Taking a county government as an example

洪萬富 a 張名宜 b

a 吳鳳科技大學

b 嘉義市村里幹事

b cmy83965413@gmail.com

摘要

本文探討家庭暴力防治工作實際執行之落差、督導工作執行困境、改善策略、並進一步比較督導者與被督者的觀點。針對相關資料得知，依人員、制度、社區進行防治業務社工訪談的結果，歸納重要原因如下：一、民眾欠缺正確家暴防治觀念。二、正式處遇帶有負面標籤。三、基層專業薄弱。四、無法落實家暴通報機制。五、諮詢人力缺乏。六、在地資源及團體整合困難。七、城鄉差異。八、機構人員受限於人力與經費。九、專責人力失衡。十、宣導資源未盡完善；針對困難點進行了討論，提出相對應的對策：一、法規與政策的倡議。二、建立好鄰居通報網。三、2.創新家暴防治的宣傳。四、推動可行的教育與團體方案；家庭暴力的成因則相當複雜，施暴者的個人特質、生活經驗、家庭成員的互動模式、外部壓力乃至於整體社會文化對於家庭中教養權限的寬嚴態度、性別刻板印象等等都可能是造成家庭暴力的原因，為了維護生命免於受到威脅及傷害，所扮演的角色極為重要，主管機關接獲通報後，必要時得自行或委託其他機關或家暴中心相關之單位，來進行訪視與調查，面對家庭暴力，都應該即時的反抗，應該立即報警、就醫驗傷；尋求資源離開施暴者並保密去向；如果不知所措，可尋求協助，將會是脫離家庭暴力的一個重要機會。

Abstract

This article discusses the gap in the actual implementation of domestic violence prevention and control work, the dilemma of supervision work execution, improvement strategies, and further compares the views of supervisors and supervisees. According to the relevant information, according to the results of the social work interviews conducted by personnel, systems, and communities, the main reasons are summarized as follows: 1. The public lacks the correct concept of domestic violence prevention. Second, the formal treatment has a negative label. 3. The grassroots profession is weak. 4. Failure to implement a domestic violence notification mechanism. 5. Lack of consulting manpower. 6. Difficult integration of local resources and groups. 7. Differences between urban and rural areas. 8. Institutional personnel are limited by manpower and funding. 9. Responsible for manpower imbalance. 10. The advocacy resources are not perfect; the difficulties are discussed, and the corresponding countermeasures are proposed: 1. Laws and policies. 2. Establish a neighbor notification network. 3. 2. Propaganda of innovative domestic violence prevention. 4. Promote feasible education and group programs; the causes of domestic violence are quite complicated. The personal characteristics of the perpetrators, life experience, family members' interaction patterns, external pressures, and even the overall social culture's strict attitude towards parental authority in the family, Gender stereotypes, etc. may be the cause of domestic violence. In order to protect life from threats and harm, the role played is extremely important. After receiving the notification, the competent authority may have to entrust other agencies or domestic violence centers if necessary. Relevant units come to conduct visits and investigations. In the face of domestic violence, they should immediately resist, call the police, seek medical attention, and seek injuries; seek resources to leave the perpetrator and keep it secret; It is an important opportunity to break away from domestic violence.

A033

照護一位肺炎合併敗血性休克之重症患者成功脫離呼吸器之護理經驗

Nursing experience of caring for a critically ill patient with pneumonia complicated with septic shock

洪萬富 a 楊錦佳 a,b

a 吳鳳科技大學

b 臺中榮民總醫院嘉義分院

a,b mail : cloud2627@gmail.com

摘要

本文探討一位因肺炎合併敗血性休克之重症個案護理經驗，個案因呼吸喘至急診，因肺炎合併呼吸性酸中毒，面臨須置入氣管內管等急性治療以維持生命徵象穩定，發現病人因緊急情況下的醫療行為不知所措，亦探討生理及心理問題。於加護病房照護期間自 2020 年 1 月 1 日至 1 月 15 日。筆者採用傾聽、會談、觀察及運用 Gordon 十一項健康功能型態護理評估工具，確立個案健康問題為呼吸道清除功能失效、焦慮、無效性健康維護能力等護理問題，護理過程筆者運用專業知識與技能，與個案及家屬建立友善的護病關係，照顧期間與醫療團隊依據敗血性休克治療準則進行體液調整，校正血液動力學穩定，並協助維持呼吸道通暢，保持主動關懷的態度，作為個案及家人間溝通橋樑，提供疾病相關照護衛教及認知，使得病人及家屬能了解病程進展及治療方向，更使用芳香療法，緩解緊張情緒並協助配合醫療行為，期望能脫離呼吸器，增加日後生活適應能力，透過此護理經驗，提供護理人員照護此類型個案之參考，期望能達到身、心、靈、社會完善照護。

關鍵字：敗血性休克、肺炎、芳香療法

Abstract

This article discusses the nursing experience of a severe case due to pneumonia combined with septic shock. The case was brought to the emergency department due to respiratory asthma, and due to pneumonia combined with respiratory acidosis, faced with acute treatment such as endotracheal tube to maintain vital signs stable. The medical behavior in an emergency is at a loss, and physical and psychological issues are also discussed. The period of care in the intensive care unit is from January 1 to January 15, 2020. The author uses listening, talking, observing and using Gordon's eleven health function type nursing assessment tools to establish individual health problems as nursing problems such as airway clearance function failure, anxiety, and ineffective health maintenance ability. The author uses professional knowledge and skills in the nursing process, establish a friendly nursing relationship with the case and family, during the care period, adjust the body fluids with the medical team according to the treatment guidelines for septic shock, correct the hemodynamic stability, and help maintain the smoothness of the respiratory tract, maintain an active caring attitude, as a case and family. Communicate bridges, provide disease-related care and education and awareness, so that patients and their families can understand the course of the disease and the direction of treatment, and use aromatherapy to relieve tension and assist with medical behaviors. I hope to be able to get rid of the respirator and increase the ability to adapt in the future. Through this nursing experience, provide reference for nursing staff to care for this type of case, hoping to achieve perfect physical, mental, spiritual and social care.

.Keywords: *Septic shock, pneumonia, aromatherapy*

A034

購買空氣清淨機提高預防空氣污染之相關影響因素分析-以在職專班為例

黃偉昌^a 林為森^a 隋安莉^a

*knight0928@gmail.com

^a 嘉南藥理科技大學醫務管理系暨碩士專班

目的：近年來，空汙已不再是單一地區或單一國家之問題。加上近年來台灣因境外空氣懸浮微粒(PM2.5)影響下所造成的空汙，空氣清淨機已漸轉變成家戶必備之家電商品。本研究是比較對於近年空氣懸浮微粒(PM2.5)所造成之空汙影響，一般民眾購買空氣清淨機提高預防空汙之相關因素探討。

方法：擷取嘉南藥理科技大學碩士醫管在職專班之學生以網路不記名問卷調查，並分析是否會因近年空氣懸浮微粒(PM2.5)所造成之空汙影響購買空氣清淨機之相關因素。

結果：問卷回收經統計後以女性較多(87.5%)，主要職業以醫護相關業居為主(79.2%)。且因醫護相關業在相關醫療相關知識及專業也比一般民眾較高，在調查是否會因空汙因素購買空氣清淨機之意願也較高(91.7%)。經問卷統計後發現：在是否具有節能標章(72.7%)、具有額外附加功能，Ex：O3除臭、Wifi、紫外線(72.7%)、完整的售後服務(90.9%)、耗材購買及性能與使用年限(86.4%)，尤以售後服務及耗材購買為考量主要因素。

結論：在職專班學生在購買清淨機購買空氣清淨機提高預防空氣污染意願較高。

關鍵字：PM2.5、空汙、空氣清淨機。

A036

第二型糖尿病與其他疾病之關聯：關聯規則法之應用

陳建勳^{1,2} 郭光明¹ 黃繼賢³ 高玉禧⁴ 潘淑雅^{5*}

¹ 義守大學醫務管理學系碩士在職班

² 義大醫療財團法人醫管室

³ 義大醫療財團法人義大醫院家庭醫學科

⁴ 義大醫療財團法人義大醫院內分泌科

⁵ 義大醫療財團法人義大醫院病歷課

目的：依據衛生福利部調查報告，2016年國人十大死因當中，糖尿病高居第五位，而相關健保費用支出一年高達184億元；此外，依據統計，有近三成糖尿病會併發腎臟病，七成併發心血管疾病，換言之，糖尿病人的最大威脅來自於各項併發症，然糖尿病會發生哪些併發症缺乏有系統的分析與實證資料，本研究主要目的在於透過資料探勘法中的關聯規則分析找出較常與第二型糖尿病同時發生的併發症。

方法：本計畫針對南部某大型醫院新陳代謝科某一門診就診病人病歷資料進行蒐集與分析，病人就診期間介於2017/11-2018/05共7個月，資料蒐集條件為病人就診診斷須包含第二型糖尿病，亦即ICD-10-CM前三碼為E11，共產生610筆資料，由於本研究主要目的為分析第二型糖尿病與其他疾病關聯，因此需將就診資料僅有一筆ICD-10-CM診斷代碼的76筆資料移除，最後剩下534筆資料供關聯規則分析使用。

結果：分析結果顯示在534筆ICD-10-CM診斷資料中，以Type 2 diabetes mellitus with unspecified complications (E11.8)、Mixed hyperlipidemia (E78.2)、Hypertensive heart disease without heart failure (I11.9)、Type 2 diabetes mellitus with neurological complications (I11.4)與Type 2 diabetes mellitus with kidney complications (I11.2)較常出現，透過關聯規則分析，發現較常與第二型糖尿病出現的其他疾病包括：Other hyperlipidemia (E78.4)、Hypertensive heart disease without heart failure (I11.9)、Constipation (K59.0)與Diabetes mellitus due to underlying condition with neurological complications (E08.4)，上述關聯規則的增益均大於1、診斷碼關聯次數 ≥ 10 次，且達到統計上顯著水準($p < 0.05$)。

結論：透過資料探勘方法進而瞭解較常與第二型糖尿病同時出現的其他疾病，將可提供醫院以實證為基礎的重要資訊，可做為臨床衛教病人關於第二型糖尿病的重要訊息依據。

關鍵字：第二型糖尿病、關聯規則分析、增益

A037

癌症資源中心諮詢服務使用之分析探討

A Study on investigating cancer counseling service using in a Cancer Resource Center

馮雅瑄^{ab} 羅萱^b 林為森^b

^a奇美醫療財團法人柳營奇美醫院癌症資源中心

^b嘉南藥理大學醫務管理系

^asophisca700210@gmail.com

摘要

目的：癌症時鐘年年快轉，依據衛生福利部國民健康署資料統計，平均每4分58秒就有一人發生癌症。癌症帶給病人及家屬身心靈極大衝擊，為協助病人及家屬面對抗癌的漫漫長路，癌症資源中心整合院內外相關資源提供病人所需之服務，使病人能安心治療及面對疾病。本研究之目的為了解目前使用癌症資源中心諮詢服務病人及家屬的特性與使用服務項目的概況及需求，研究結果可以整合資源提供病人及家屬適切的照護知識和資源介入。

方法：本研究採回溯性研究，以柳營奇美醫院癌症資源中心108年度病人服務紀錄資料進行分析，排除未確診之病人後，分析人次為3,419人次。

結果：癌症資源中心108年度總服務人次為3,419人次，服務對象以病患本人2,730人次居多，使用癌症資源中心諮詢服務多數為女性病患(61.8%)，病人年齡多數為51-70歲(65.7%)，服務癌症別以乳癌病人(32.4%)為最多，頭頸部惡性腫瘤(18.8%)次居，治療階段以初診斷初治療的病人(48%)較多，病人來源為自行求助者(65.5%)最多，資源中心服務項目以情緒支持1,267人次(21.5%)為主，其次為照護衛教854人次(14.5%)。

結論：抗癌的過程，病人及家屬面臨多重的壓力源，導致身心俱疲，最嚴重可能會中斷治療，因此讓病人順利完成治療是非常重要的。癌症資源中心人員應定期檢視並更新癌症資源中心所提供的資訊與資源，以滿足病人及家屬不同之服務需求，使病人能順利接受癌症治療。

關鍵字：癌症資源中心、癌症病人、諮詢服務

A038

南部某區域醫院乳癌病人 24 小時電話諮詢服務調查分析

周姿萍^{ab} 羅萱^b 林為森^b^a 奇美醫療財團法人柳營奇美醫院癌症中心^b 嘉南藥理大學醫務管理系^a m519386@gmail.com

摘要

目的：根據衛生福利部資料顯示，乳癌為女性癌症發生率第一位，每年有逾萬名婦女飽受身體心像改變及治療所造成的身心痛苦。研究指出病人對癌症及化學治療有正確的認知，且若能適時提供副作用處理的知識及方法，其較有信心持續接受化學治療。電話諮詢專線服務能快速、有效解決癌症病人身、心需求與疑問，因此透過此研究，瞭解乳癌病人使用電話諮詢服務之情形，以提供臨床人員衛教與後續持續治療服務之參考。

研究方法：本研究採回溯性資料分析，統計自 2007 年 1 月至 2019 年 12 月間，乳癌病人曾使用之電話諮詢服務，總計諮詢服務共 2,212 人次，主要為針對諮詢者基本資料及諮詢服務類別進行分析。

結果：分析諮詢者來電時間主要是以上班時段(8am-5pm)佔(82.2%)最多，諮詢者身份以病人本身(71.9%)最多、其次為病人之先生(6.2%)；病人年齡以 46-55 歲(33.6%)為最多、其次為 56-65 歲(27.1%)；諮詢者醫院別以該院乳癌病人居多(91.3%)，問題類別則以自身醫療相關問題(38.9%)最多；線上個案管理師直接提供服務當中，有 36.9%病友需心理支持；轉介服務中有 37.9%病人須回本院門、急診進一步評估、處置。

結論：此研究顯示，透過 24 小時電話諮詢服務，能有效克服時間及地域限制，且更有彈性的提供即時照護資訊及適時給予病患心理支持，此研究結果顯示電話諮詢服務除可彌補空間、時間限制，亦可提供後續前瞻性研究之參考。

關鍵詞：乳癌、電話諮詢服務

A039

醫療影像辨識新興技術預測-以專利分析法探討

蔡志成

國立臺灣師範大學工業教育碩士班
abcd556658@gmail.com

摘要

智慧醫療影像是醫師的重要夥伴，透過影像處理與整合數據資料，不僅能提升工作效率，也能與病患進行有效溝通並追蹤病症。有鑑於此，近年來有關智慧醫療影像之相關技術應用蓬勃發展，以工研院研發的「糖尿病眼底影像 AI 決策支援系統」為例，台灣十大死因之一的糖尿病，其主要併發症視網膜病變，與一般視網膜病變患者相比，失明機率多出 25 倍，工研院研發之系統能發揮提早預防，及時治療的效果。又以日本 LIXIL 研發的 AI 馬桶為例，透過感測鏡頭辨別糞便狀態，加以分析使用者之健康，若是分析結果有任何疑慮，都會提示使用者並將資料直接傳送給主治醫生，以利後續診斷治療。醫療影像辨識不僅輔助醫師也幫助病患，同時讓亞健康的社會大眾預防並注意身體的警訊，本研究主題也因應而生。

本研究以專利分析法和技術生命週期探討智慧醫療影像辨識技術相關的 10 項技術趨勢發展。使用國際專利分類號(IPC)、關鍵字和通過檢核之公告專利做檢索，以國際專利分類號探討智慧醫療中影像辨識技術所重視之分類為何種影像辨識技術。本研究以智慧醫療影像辨識技術相關的 10 項技術累積之專利數，作為衡量技術績效之專利指標，以費雪成長模型(Fisher-Pry Growth Model)和羅吉斯成長模型(Logistic Growth Model)，描述技術生命週期和衡量技術參透比率。

關鍵詞：智慧醫療、影像辨識技術、費雪成長模型、羅吉斯成長模型、生命週期

Abstract

Smart medical imaging is an important partner for physicians. Through image processing and integration of data, it can not only improve work efficiency, but also effectively communicate with patients and track symptoms. In view of this, in recent years, the application of related technologies related to smart medical imaging has developed vigorously. Taking the "Diabetes Fundus Imaging AI Decision Support System" developed by the Industrial Research Institute as an example, diabetes, one of the top ten causes of death in Taiwan, its main complication is retinopathy. Compared with patients with retinopathy, blindness is 25 times more likely, and the system developed by the Industrial Research Institute can exert the effects of early prevention and timely treatment. Taking the AI toilet developed by LIXIL in Japan as an example, the status of feces can be identified through the sensor lens, and the health of the user can be analyzed. If there are any doubts in the analysis result, the user will be prompted and the data will be directly sent to the attending doctor for subsequent diagnosis treatment. Medical image recognition not only assists physicians but also helps patients, and at the same time allows the sub-healthy society to prevent and pay attention to the body's warning signs. The subject of this research is also born.

This study discusses the development of 10 technology trends related to smart medical image recognition technology with patent analysis and technology life cycle. Use the International Patent Classification Number (IPC), keywords, and published patents that have passed the inspection to search, and use the International Patent Classification Number to discuss what kind of image recognition technology is classified by the image recognition technology in smart medicine. In this study, the patents accumulated by 10 technologies related to smart medical image recognition technology are used as patent indicators to measure technical performance. The Fisher-Pry Growth Model and Logistic Growth Model are used to describe the technology life cycle and measure the technical penetration ratio.

Keywords: Smart medical、Image recognition technology、Fisher-Pry Growth Model、Logistic Growth Model、life cycle

A040

一位直腸癌病人腸造口術後面臨身體心像紊亂之護理經驗

Nursing Experience of a Rectal Cancer patient with body image disturbance after Colostomy

王華雯^a

^a 郭綜合醫院 急診室

^a bird72204@gmail.com

摘要

本篇個案報告為一位直腸癌病人術後面對腸造口留置造成排便形態改變，使個案出現焦慮、負面的想法而導致身體心像紊亂，護理期間自 2018 年 12 月 26 日至 2019 年 1 月 7 日，以 Gordon 11 項功能性健康型態為評估架構，經由觀察、會談和身體評估收集資料，確立健康問題為焦慮、急性疼痛、知識缺失、身體心像紊亂。因擔心手術或麻醉造成身心傷害，而產生焦慮、不安，給予詳細說明手術注意事項及心理支持減輕個案焦慮；術後產生急性疼痛，有效運用藥物及非藥物護理措施如：運用精油按摩及教導減輕傷口疼痛的技巧；利用圖片及模型說明腸造口照護並回覆示教，使個案藉由支持團體活動提高正向的想法、減輕腸造口的氣味降低個案不安、增進病人腸造口居家照護技巧，協助面對身體心像的改變，與醫師討論其病情及後續診療計畫，鼓勵積極接受治療。因本院無造口護理師，腸造口護理皆由護理人員執行及指導，建議本院設置造口護理師，於手術前後指導病人學習腸造口照護，出院後持續追蹤，以提升病人腸造口相關照護之認知與技能，早日回到生活的軌道。

關鍵詞：直腸癌、腸造口、身體心像紊亂

A041

探討南部某區域教學醫院民眾的檢驗健康識能以提升醫療照護品質

Investigate the Medical Technology Health Literacy of People in a Teaching Hospital in a Southern Region to Improve the Quality of Medical Care

許曉芝^{a,b} 林晨星^b 侯佳儀^b 郭彥宏^a

^a嘉南藥理大學 醫務管理系

^b奇美醫療財團法人柳營奇美醫院 臨床病理科
931070@mail.chimei.org.tw

摘要

健康識能是健康促進的關鍵性決定因子，在2017年有調查分析指出台灣成人的健康識能為有限與不足佔51.6%，且南部地區老年人口佔率相對高，健康識能的不足更為明顯。世界衛生組織對健康識能定義為一種認知和社會技能，決定個人獲得、理解、評估和應用資訊，可促進維持良好的健康模式。利用輔助工具及設計檢驗識能測量表可協助民眾取得檢驗識能之技能。實驗室檢驗結果品質及準確度分為檢驗前、中、後而檢驗前的誤差率暫居最高，積極衛教讓民眾認識檢驗識能，便可提高檢驗報告正確性。

本研究目的主要針對到院就診民眾及家屬常做之檢驗抽血項目及檢體採集，利用影音及簡報衛教方式並設計模擬衛教方式活動，以提升民眾對檢體採集前準備及檢驗抽血應注意事項的認知，並可提升檢驗結果正確性。活動設計有體驗血型鑑識站、免費血糖檢測站，強化民眾對醫檢師的工作服務內容及觀念更進一步的了解。為提升健康促進及健康識能並針對到院病人及家屬設計前測、後測及問卷調查，以確保其檢驗觀念提升，以期達成預定成效，並能改善醫病關係間的資訊不平等，並達到提升醫療照護品質。活動結果計畫目標達成率為90%以上，分析民眾前測結果為17%，經過檢驗識能衛教後進行後測結果為92%，其達成率達102%且認知率提升達75%。

健康識能有助於醫病溝通、慢性疾病照護等健康照護議題。檢驗識能活動對檢驗醫學知識進行多元及活潑生動的互動式衛教並致力推動健康促進，提升民眾檢驗醫學知能，將有助於對病人的就醫與尋求健康行為有更完整的知能，並落實以病人為中心的醫療照護。

關鍵詞：(健康識能、健康促進、檢驗識能、輔助工具、衛教)

A042

臨床醫學實驗室之前瞻性風險分析

郭玲姪^{a,b,*} 陳城霖^b

^a 郭綜合醫院 檢驗醫學部

^b 嘉南藥理大學醫務管理系(所)

一、目的：

在IOS15189：2012醫學實驗室認證規範4.14.6特別要求實驗室應針對影響「病人安全」的工作流程與檢驗結果之潛在失效的衝擊進行評估，以減少或消除鑑別的風險，持續改進實驗室的檢驗品質。

二、方法：

本研究依據 JANSSENS 提出的前瞻性風險分析方法(Prospective risk analysis, PRA)探討檢驗分析前、中、後三個階段存在潛在風險。共鑑別 117 個潛在風險；整體平均風險分數(R)為 14.6±2.0，整體平均風險偵測的概率(D)為 1.6±0.2。在檢驗前階段「檢體分類分流」、「檢體離心處理」、「檢體傳送到各組別進行分析檢驗」流程步驟，是造成延遲分析的高風險潛在失效步驟，導入風險控制(1)提高離心轉速及縮短時間(2300g, 3min)，與原離心轉速及時間(1300g, 10min)進行評估，顯示兩種離心方式對生化檢驗結果並無統計上的顯著差異(R2 均≥0.95, p>0.05)，藉此縮短檢驗報告時間效益。2.)重新規劃檢體分流動線，縮短檢體上機時間。3.)報告逾時資訊警示提醒。

三、結果：

執行行動改善後；(1)急診生化報告平均時間：由 33.4±2.0 分鐘縮短為 24.1±0.5 分鐘(t=9.07, p=0.002<0.01)。(2)急診生化檢驗報告逾時率由 10.6%降低至 1.9% (t=8.10, p=0.000<0.01)。(3)急診報告時效滿意度調查由 3.7 提升至 4.04。(4)生化檢體傳送距離減少 10.0 公尺，急診檢驗結案時程大減 41.5%。

四、結論：

現在的病人安全著重於風險管理而非異常管理，故從全面作業流程角度去思考疏失發生的可能性，以減少錯誤再發生，才能有效地保障病人的安全。

關鍵詞：醫學實驗室認證 ISO15189、前瞻性風險分析方法、檢驗報告時效

A043

脊椎手術病人術中使用脂肪墊降低壓瘡發生之個案分析

A case study of investigating fat pads using to reduce pressure sores during operations for spine surgery patients

何宣穎^a 林為森^b

^a 嘉南藥理大學醫務管理系暨碩士班

^b 嘉南藥理大學老人服務事業管理系

^ahellokitty242061@gmail.com

摘要

背景：臨床手術時，因麻醉固定不動與特殊手術臥位等因素，易產生壓瘡併發症，會對手術個案造成傷害，同時也會因照顧傷口造成醫療成本的增加，因此在手術進行時使用脂肪墊作為減壓輔助用具，使患者減少壓瘡的發生。

目的：全身麻醉手術治療需要的時間通常超過4個小時且採用俯臥姿勢，容易造成壓瘡，因此本研究主要目的為觀察脂肪墊的使用是否可以降低大於四小時手術中所造成壓瘡形成的機率。

方法：以個案觀察方式進行，研究個案為73歲，進行手術時，在個案骨突處如胸部、腸骨嵴和膝關節等容易受壓部位擺放各形狀之脂肪墊，並以手術室自訂壓瘡預防表於術前及術後進行評估。

結果：個案手術過後，全身皮膚無發紅腫脹及組織壓迫之情形，個案亦無自訴肢體麻木及異常知覺之現象且可自行活動。

結論：經由此個案分析可證實脂肪墊對於壓瘡的預防有實質的效果，可以減少個案手術中的傷害，並降低醫療人事與支出之成本。

關鍵詞： 脊椎手術、脂肪墊、壓瘡

Abstract

Background: Pressure sore and its complications can be produced by anesthesia immobilization and special fixed position in clinical surgery. It will cause injury to surgical cases, and increase medical costs of the wound care treatment. The use of shaped fat pads as a pressure relief aids can reduce the occurrence of pressure sore in operations for patients.

Objective: More than 4 hours anesthesia of spinal surgery and a prone position usually cause pressure sore, the main purpose of this study is to observe the effectiveness of using shaped fat pads to reduce the probability of pressure sore caused in the surgery.

Methods: A case observation was conducted, and the study case was 73 years old. When the operation was carried out, the fat mats of various shapes were placed in the areas of the bony prominences such as chest, intestinal crest, and knee joint. A table of the pressure sore prevention was used for pre- and post-operative evaluation.

Results: After the surgery, there was no redness and swelling of the whole body skin and tissue compression, and the case was free of self-inactivity and abnormal perception of the limb and could move on its own.

Conclusion: Results of the case analysis can confirm that using fat pads has a real effect on the prevention of pressure sores. It can reduce the damage in case surgery and reduce the cost of medical personnel and expenditure.

Keywords: Spine surgery, fat pads, pressure sores

A044

高齡者從事志願服務對自身健康促進的研究：以北部某非營利機構志工為例

洪萬吉^a 陳慶輝^b 許世春^c

^a嘉南藥理大學醫務管理系副教授

^b嘉南藥理大學醫務管理系副教授

^c嘉南藥理大學醫務管理系在職碩專班

^ahwj7902@mail.cnu.edu.tw

摘要

在 83 年 65 歲以上老年人口已經達 7% 進入高齡化社會，到 107 年 65 歲以上老年人口比率已達 14% 的高齡社會 (衛服部, 107)。根據國家發展委員會推估，預計到 115 年台灣 65 歲以上老年人口則將超過 20%，進入超高齡社會。高齡化浪潮席捲而來，高齡退休老人的生活適應與高齡者退而不休的日常健康生活問題，不僅維繫著其個人及家庭的幸福，也是社會的問題，甚至影響國家的經濟，牽涉範圍既廣且深，已不容輕忽。所以很多高齡者退休後參與社會志願服務，但其家人不放心且想瞭解從事志工對於老人家的健康促進是否有影響。本研究探討高齡志工在退休後從事志願服務的過程，和自身健康促進的關係。做志工是否能增加高齡者的生活情趣，學習自我照顧的能力，抑或造成更大的壓力與負擔。將研究結果提供給還在猶疑是否要嘗試志工服務的高齡者，或是高齡志人家屬對高齡者在從事志工服務時是否會影響老人家健康的疑慮。

關鍵詞：志工, 健康促進, 高齡社會

Abstract

In 1983, 7% of the elderly population over 65 years of age had entered an aging society. By 107, the proportion of elderly people over 65 years of age has reached 14% in the elderly society (Ministry of Health Services, 107). According to estimates by the National Development Committee, it is expected that by 115, Taiwan's elderly population over 65 will enter over-old society. The wave of aging has swept through. The life adaptation of the elderly retired and the daily healthy life of the elderly retreat not only maintains the happiness of their individuals and families, but also a social problem, and even affects the national economy. And its influence large and deep, these cannot be ignored. Therefore, many elderly people participate in voluntary social services after retirement, but their family members are uneasy and wonder whether engaging in volunteering will affect the health promotion of the elderly. The purpose of this research is to understand the relationship between senior volunteers engaged in voluntary service after retirement and their own health promotion. Whether volunteering can increase the life interest of the elderly, learn the ability of self-care, or cause greater pressure and burden. The results of the study are provided to senior citizens who are still hesitant to try volunteering services, or family members of senior volunteers wondering whether senior citizens will affect the health of the elderly when engaging in volunteering services.

Keywords: Volunteer, health promotion, elderly society

A045

民俗調理顧客滿意度與忠誠度之探討：以傳統推拿整復為例

洪萬吉^a 陳慶輝^b 陳君綜^c

^a嘉南藥理大學醫務管理系副教授

^b嘉南藥理大學醫務管理系副教授

^c嘉南藥理大學醫務管理系在職碩專班

^ahwj7902@mail.cnu.edu.tw

摘要

民俗調理是一般大眾除了利用醫療體系以外，用來調理身體的常見的保健方法之一。在 2016 年中醫藥司的調查中，民俗調理的從業人員有傳統整復推拿從業人數約有 10 萬人之眾，民俗調理業也在民國 102 年已列入中醫藥司的業務職掌內，代表其產業在本國已有顯著的重要性。在從事推拿整復工作多年的期間發現到，此產業有被民眾的需求度上的增長。理論上，若是滿意度高的情況下時，通常其反應出的忠誠度應該會預期性的增加；而反之在滿意度低情況下，其忠誠度的相應變度就會變低。但在真正的職業的狀況下，卻有時會發現有些特別的現象，例如有時滿意度高卻忠誠度低或者是滿意度低卻忠誠度高的現象，與原本預期的理論不同。因此，本研究探討民眾在民俗調理業「傳統整復推拿所」中消費者的滿意度和影響滿意度的重要因素，並利用人口特性進行統計分析找出其影響滿意度與忠誠度的關聯性。

關鍵詞：民俗調理, 顧客滿意度, 忠誠度

Abstract

Folk conditioning is one of the common health care methods used by the general public to regulate the body in addition to the medical system. In the survey conducted by the Chinese Medicine Division in 2016, there are about 100,000 people in traditional folk massage practices in folk conditioning, and the folk conditioning industry has also been included in the business department of the Chinese Medicine Division in 102 Industry is already of significant importance in the country. I have been engaged in massage and recuperation for many years and found that this industry has been growing in demand from the public. Theoretically, in the case of high satisfaction, the loyalty should generally increase in anticipation; on the contrary, in the case of low satisfaction, the corresponding change in loyalty will become lower. However, under the real professional situation, some special phenomena are sometimes found, for example, sometimes the phenomenon of high satisfaction but low loyalty or low satisfaction but high loyalty is different from the original theory. Therefore, this study aims to investigate the satisfaction of consumers and the important factors that influence satisfaction in the folk traditional conditioning industry "traditional rehabilitation massage shops", and use demographic statistical analysis finds the correlation between its impact satisfaction and loyalty.

Keywords: folk conditioning, customer satisfaction, loyalty.

A046

整復推拿之魚腰穴刮痧對睡眠品質與其滿意度探討

洪萬吉^a 黃品喬^b

^a嘉南藥理大學醫務管理系副教授

^b嘉南藥理大學醫務管理系在職碩專班

^ahwj7902@mail.cnu.edu.tw

摘要

從小生病，鄉下醫療缺乏，只能找一些國術館和中藥房看病，有接觸一些老師傅的推拿整復推拿手法很神奇，可以解決很多人的痛苦。但這些老師傅們的經驗知識沒有傳承下來很可惜，這些徒手的推拿手法既可當治療又可當保健來推廣。保健的方法有很多種，像這種不吃藥不打針，只靠徒手推拿按摩來進行保養，是可以達到養生的目的，而且也是預防醫學所提倡的自然療法，更可以減輕健保的支出負擔，是值得推廣的。我自己因為接觸而產生興趣，學習整復推拿，希望更多人能了解傳統整復推拿，傳統整復推拿是一門藝術的科學。藉由服務品質、顧客滿意度與消費行為來探討社會大眾對傳統整復推拿從業人員的期待，使從業人員更優秀，能提供最佳的服務。

關鍵詞：整復推拿, 魚腰穴, 滿意度

Abstract

I have been sick since childhood, and there is a lack of medical treatment in the countryside. I can only go to some Guoshu Museums and Chinese pharmacies to see a doctor. There are some masters who have massages and massages. But it is a pity that the experience and knowledge of these teachers have not been passed down. These freehand massage techniques can be used as both treatment and health promotion. There are many methods of health care. Like this, no medicine or injection, just massage by hand massage for maintenance, can achieve the purpose of keeping in good health, and is also a natural remedy promoted by preventive medicine, which can also reduce the burden of health care expenditure, It is worth promoting. I am interested in contact because of contact. I study recuperative massage. I hope more people can understand traditional recuperative massage. Traditional recuperative massage is an art science. Through the service quality, customer satisfaction and consumption behavior, we discuss the expectation of the public on traditional recuperation massage practitioners, so that the practitioners are better and can provide the best service.

Keywords: recuperative massage, yuyao point, satisfaction, consumption behavior

A048

探討臨床護理人員對手術前禁食的知識程度與影響因素

A prospective cross-sectional questionnaire-based survey on nursing care for preoperative fasting

蔡雅玲^{ab} 謝幸燕^a

^a義守大學醫務管理學系碩士在職專班

^b義大醫療財團法人 義大癌治療醫院

^acd258937@gmail.com

摘要

目的

以南部某醫院的臨床護理人員為研究對象，透過問卷調查的方式分析臨床護理人員對手術前禁食的知識程度和影響因素。

方法

本研究採用橫斷性研究設計，研究工具依據文獻回顧所編制的自擬式結構性問卷，應用立意抽樣的方式針對南部某準醫學中心麻醉部之臨床護理人員及外科部醫療人員進行前後測問卷收案，填答時不記名，共發放 321 份問卷，回收問卷 214 份。研究資料以 SPSS 22.0 版本統計分析軟體進行資料的描述性統計與推論性統計分析。

結果

實證發現：(1)在介入教育前是否曾經接受過術前禁食課程，對於知識程度的答對率($t=1.52$, $p=0.127$)並無明顯差異；(2) 研究發現較高的學歷、臨床護理年資在術前禁食的知識程度明顯優於較低學歷、臨床年資較淺的護理人員；(3) 在職教育後有無參與術前禁食的介入教育在知識程度上($t=-9.43$, $p<0.05$)有明顯差異。

結論

本研究可作為未來相關單位於在職教育的方法上，可參考依照不同族群來制定教育方式，以避免不同程度護理人員吸收成效不一之情況。

關鍵詞：術前禁食、手術前準備、在職教育、介入教育

A049

使用自動繳費機改善民眾等待批價之成效分析

Analysis on the effect of using automatic pay station to improve people waiting for approval

顏智鳳^a

^a義守大學醫務管理學系碩士在職專班
義大醫療財團法人義大醫院

^aed102183@edah.org.tw

摘要

各大企業莫不以提升品質、降低成本以追求公司整體最大利潤。在以大量人力為主的醫療服務業，如何採用硬體設備及智慧軟體以協助業務進行，使組織內成員得以服務更大層面及深入解決客戶問題仍是醫療科技的精

神。自動繳費機（Automatic Pay Station）為自助服務科技（SSTs）中是常見的應用，以自助方式完成所需要的服務，不需等待人工處理，以更有效率方式提供民眾選擇，一方面建立民眾對醫院滿意度，另一方面降低民眾於批價櫃檯前留滯率，使醫院批價流程更有效能。透過實際的使用統計分析，自動繳費機台設置及介面整體規劃如設置得當，實際可達到企業所冀望之降低人力需求提高運作效能的目標。對外減少民眾等待批價的時間可提高民眾滿意度，對內金流不需透過人工而直接進入系統，減少人力及錯誤工作時效，以長久而言使用自動繳費機實可發揮效能。

關鍵詞：自動繳費機 自助服務科技

A050

Acute Myocardial Infarction Software Technology-Aids Decision (AMISTAD) system for reducing the door-to-balloon interval in ST-segment elevation myocardial infarction

Jing-Jia Lin¹, Chia-Te Liao^{2*}, Hung-Jung Lin³

¹Department of Information Systems, Chi-Mei Medical Center, Tainan, Taiwan

²Cardiovascular Division, Chi-Mei Medical Center, Tainan, Taiwan

²Superintendent Office, Chi-Mei Medical Center, Tainan, Taiwan

*To whom correspondence should be addressed. e-mail: hacker.lin@gmail.com

Abstract

Background

Prompt reperfusion intervention is crucial for the patients with ST-segment elevation myocardial infarction (STEMI), and the time interval between arriving hospital and inflating intracoronary balloon (door-to-balloon time, DTB) should be less than 90 minutes and even shorter. To precisely record and reduce the DTB time, our hospital created and implemented a digital system, Acute Myocardial Infarction Software Technology-Aids Decision (AMISTAD), since July 2018, which replaced the traditional telephone connection before primary percutaneous intervention (PCI). The objective of the study was to investigate whether the new digital system could reduce DTB time.

methodology and technology used

AMISTAD system includes three parts, electrocardiogram (ECG) and DTB time monitor by artificial intelligent (AI), immediate information cross-platform, and interactive voice response (IVR). When patients with chest pain arrived at the hospital, ECG was simultaneously read by AI and triage staffs. Once STEMI was suspected, the system would automatically call ER doctors and the on-duty cardiologist immediately. All clinicians were able to obtain all information of the patient through the mobile app, including history, physical examination, ECG, chest X-ray, and laboratory data. The cardiologist could decide whether primary PCI should be activated by switching on the virtual button on the app. If primary PCI was activated, the system would simultaneously contact all members of the primary PCI team through IVR. All members receiving the call needed to press the number given by IVR, and this may prevent that someone did not answer. Moreover, each time point was shown on the monitor and recorded, including ECG completion time, cardiologist response time, the activation time of primary PCI, arriving catheter room time, and DTB interval.

We retrospectively collected the relevant data of the STEMI patients receiving primary PCI before and after this system. The multivariate regression model was used to determine the association between the digital system and DTB time.

Result

A total of 18 STEMI patients (65.4 ± 9.4 years old, 83% for male) received primary PCI from October to December in 2018 after the application of AMISTAD system, while 23 STEMI patients (64.1 ± 9.3 years old, 83% for male) were identified as the comparator before AMISTAD from October to December in 2017. Each time interval before and after AMISTAD system were 9.61 versus 4.22 minutes ($p=0.003$) for door to ECG completion, 17.7 versus 10.0 minutes ($p=0.007$) for door to notifying the cardiologist, 23.26 versus 14.17 minutes ($p=0.02$) for door to activating primary PCI, and 73.13 versus 64.56 minutes ($p=0.05$) for DTB.

Conclusion

Prompt reperfusion treatment is critical for STEMI patients. With the aids of software technology, we demonstrated a significant reduction in DTB time in STEMI management via the self-innovated AMISTAD system.

Keywords: STEMI, DTB, AMISTAD, IVR, PCI

A051

Artificial Intelligence Aided Early Warning System of In-Hospital Cardiac Arrest

Jing-Jia Lin¹, Chia-Te Liao^{2*}, Hung-Jung Lin³

¹Department of Information Systems, Chi-Mei Medical Center, Tainan, Taiwan

²Cardiovascular Division, Chi-Mei Medical Center, Tainan, Taiwan

²Superintendent Office, Chi-Mei Medical Center, Tainan, Taiwan

*To whom correspondence should be addressed. e-mail: hacker.lin@gmail.com

Abstract

In-hospital cardiac arrest causes heavy stress and burden for the clinicians and public health. With the tight connection with electronic health records, many healthcare institutes buildup a rapid response team to reduce the occurrence. However, this strategy still has challenges because of the accuracy and false alarms. Rule-based method, like National Early Warning System (NEWS), is proposed to be an alarm for cardiac arrest events, but it is not effective. Therefore, we applied an artificial intelligence aided early warning system to help prediction of the events. The system was developed by machine learning initially, but the area under receiver operating characteristic curve (AUROC) was only 0.70. Then, we redesigned the method, and used a deep learning model to find the better prediction. After the implementation, the deep learning-based early warning system did not only improve the false alarms, but also mitigate the rate of cardiac arrest events.

Keywords: hospital cardiac arrest, National Early Warning System (NEWS), early warning system, machine learning, deep learning

A052

建構視訊診療系統以因應流行疫情之研究

林景嘉^{ab} 王崇安^a 陳俊龍^a

^a奇美醫療財團法人奇美醫院 資訊室

^b嘉南藥理大學資訊管理系

^ahacker.lin@gmail.com

摘要

在這個十分不平靜的 2020 年，新冠肺炎在中國武漢爆發後，全球已經有百餘萬人確診，這場堪比二戰後最嚴重的疫情和劇變，已讓人類社會面臨前所未有的恐慌，不僅許多國家遭受醫療資源匱乏的打擊，看似毫無未來的產業、經濟晦暗，更令許多業者無語問蒼天。為提供安全的醫護環境以因應新冠肺炎（2019 年冠狀病毒疾病、COVID-19）疫情，本研究將自行開發安全的視訊醫療系統以整合醫療、資訊、護理及行政等系統透過視訊診療，提供居家檢疫及居家隔離的民眾醫療的可近性。期盼未來也能藉由通訊診療方式將醫療服務延伸到偏鄉部落及居家醫療。視訊診療可讓接受居家隔離、檢疫或自主健康管理民眾不用外出，在家就可透過手機視訊接受醫師看診。醫師會在指定時間，可在診間透過本視訊系統傳送簡訊給病人。病人在手機點選簡訊上的連結後，就可開始視訊診療；不須另外下載任何 APP，不善於使用 3C 操作的長輩也可輕鬆操作。院方接獲台南市衛生局安排後，將先由感染管制護理師了解民眾就醫需求，協助掛號並留下可進行視訊的手機號碼，並約定看診日期。護理師在看診當日護會再與病人聯繫，確認進行視訊時間。配合健保規定，醫師於視訊診療開始時，會請病人在手機鏡頭前出示自己的健保卡及報上姓名以確認身分。診療後再請病人委託親友攜帶病人的健保卡、相關隔離通知書影本，至醫院批價櫃檯繳費及領藥。讓配合防疫民眾安心健康管理，在保護他人之餘仍享有就醫保障。

關鍵詞：新冠肺炎、COVID-19、視訊醫療系統、居家檢疫、居家隔離

A054

臨床研究協調員和臨床研究護理師之專業發展與困境

Professional development and predicament of clinical research coordinator and clinical research nurse

廖倩怡^a

^a義守大學醫務管理學系所

^a chienyiliao33@gmail.com

摘要

為提供病人新治療方法及更好的醫療發展，新藥品開發須經由「人體試驗」的過程，也稱為「臨床試驗(Clinical Trial)」。臨床研究協調員(Clinical Research Coordinator, CRC)或者臨床研究護理師(Clinical Research Nurses, CRNs)，對於臨床試驗品質影響很大，在臨床試驗中有不可或缺的地位。由研究得知，台北市某醫學中心所有臨床研究協調員及研究助理中，僅有 19%職稱為臨床研究護理師，大多數職稱仍為臨床研究護士或研究助理，顯示目前台灣執行臨床試驗人員的專業發展，尚未受到重視。目前並無文獻查證及研究，對於臨床研究協調及臨床研究護理師之異同進行探討，因此引發研究者的研究動機。本研究以質性研究方法為主，以臨床研究協調員及臨床試驗研究護理師為主要的研究對象，並根據臨床試驗團隊關係架構圖，從架構中的各單位詢問「重要關係人(key person)」共 20 人，透過深度訪談法(in-depth interview)直到蒐集的資訊飽和為止，探討臨床研究協調員及臨床研究護理師之專業發展與困境。本研究資料分析概念，區別為「角色定位」、「專業化發展」、「職業展望」等呈現研究結果，盼研究成果能作為職業專業化發展之參考。使未來的臨床試驗執行及品質得更加提升，讓受試者(病人)能得到更專業的照顧及增加滿意度，以利新藥物研究結果更快發表上市，造福全體國民健康。

關鍵詞：臨床研究協調員、臨床研究護理師、困境、專業化發展

A055

探討多媒體衛教影片對白內障門診手術病人返家後自我照顧認知成效

謝昕諭^{a,b*} 郭彥宏^b

^a 國立成功大學醫學院附設醫院

^b 嘉南藥理大學

* girl0953229631@gmail.com

摘要

根據中華民國眼科醫學會指出，全國白內障手術年約 12 萬台。白內障為老年常見眼科疾病，主要症狀為漸進式視力減退與夜間視力差。此類病人術後即可返家，然而，因患者多年長者且視力狀況不佳，單以文字敘述衛教效果恐不彰。因此，本研究為比較自我照顧多媒體影音光碟與傳統護理指導在白內障手術後，對於自我照顧技巧認知與滿意度之差異。本研究採類實驗介入研究設計，對某醫學中心白內障患者，採立意取樣方式收集樣本。收案對象條件包括：初次白內障手術、能理解國台語、年紀 60 歲以上者。收案期共三個月，以收案時段分為兩組，收案時間分為單雙週，研究對象共 80 人。實驗組以多媒體影音護理指導光碟配合回覆示範教學；控制組由衛教師以傳統白內障衛教單張給予護理指導。衛教師以電話訪問患者，並針對問卷內容於隔周再測信度。研究資料以 SPSS 22.0 版進行資料分析。綜合分析後顯示，相較於傳統護理指導而言，白內障手術後以「自我照顧多媒體影音光碟」進行衛教，對於白內障手術後患者有更顯著之護理衛教成效。多數因術後不便導致衛教障礙者皆能於此研究方法中獲得有利資訊，進而獲得良好術後護理。因此，透過本研究結果，期望未來能應用於白內障術後護理衛教，以輔予手術預後有更佳效果。

關鍵字：白內障、術後護理、數位衛教

A056

An Interactive AIoT-enabled Outcome Prediction System in Emergency Department

Chia-Jung Chen¹, Chien-Cheng Huang^{2,3}, Chung-Feng Liu^{4*}, Shu-Lien Hsu⁵, Tzu-Lan Liu¹, Chien-Chin Hsu², Hung-Jung Lin², Jhi-Joung Wang⁴

¹Department of Information Systems, Chi-Mei Medical Center, Tainan, Taiwan

²Department of Emergency Medicine, Chi-Mei Medical Center, Tainan, Taiwan

³Department of Senior Services, Southern Taiwan University of Science and Technology, Tainan, Taiwan

⁴Medical Research Department, Chi-Mei Medical Center, Tainan, Taiwan

⁵Department of Nursing, Chi-Mei Medical Center, Tainan, Taiwan

*Corresponding author's e-mail: chungfengliu@gmail.com

Abstract

The purpose of this study is to develop a comprehensive AI (Artificial Intelligence) system to predict clinical outcome of patients with pneumonia in emergency department. According to literature review and experts' experience, we built a supervised learning model with 34 feature variables and 3 outcome variables of respiratory failure, sepsis or septic shock, and in-hospital death using last 10 years of big data among the three hospitals of Chi Mei Medical Group and a deep learning algorithm of MLP (Multilayer Perceptron) was chosen for better model quality to implement as an embedded application into existing hospital information system (HIS) in emergency department. Two critical features of this system, AIoT (AI + Internet of Things) and interactive AI, are introduced in-depth. The system is believed to be a useful mechanism for both physicians' treating planning for and shared decision making with patients. Advantage was discussed as well.

Keywords: *Artificial Intelligence (AI), Internet of Things (IoT), Pneumonia, Shared Decision Making, Emergency Department, Outcome Prediction*

A057

影響醫療專業人員持續使用電子轉診平台之因素與使用成效

Understanding Determinants of Health Care Professionals' Perspectives on Medical Referral System Continuance and Performance

陳奕翰^a 蕭如玲^b 林為森^c

^a 嘉南藥理大學 醫務管理系

^b 嘉南藥理大學 醫務管理系

^c 嘉南藥理大學 老人服務事業管理系

^b mayo5012@gmail.com

摘要

目的：衛福部在 2017 年推動分級醫療與雙向轉診策略中提出電子轉診平台的應用，以強化醫療單位的溝通，提升病患醫療照護品質，落實雙向轉診。然考量轉診平台啟用所帶來的衝擊與變革，除對採用電子轉診平台完整之規劃導入作業因應外，了解第一線醫療專業人員對系統使用的評價，以作為持續改善系統依據，是非常重要的議題。因此本研究以探討影響醫療專業人員持續使用電子轉診平台之因素，及使用成效之評估為目的。

方法：以系統持續使用後接受模式為理論基礎，結合認知易用、信任發展研究架構與問卷設計，針對已使用電子轉診平台進行轉診之醫院與合作基層醫療之醫師，進行問卷調查，共回收有效問卷為 127 份(64.8%)，以 SmartPLS3.0 進行資料分析。

結果：研究發現影響醫師持續使用電子轉診平台因素，包括醫師對電子轉診平台確認顯著影響認知易用($R^2=0.306$)、易用與確認顯著影響認知有用($R^2=0.707$)；確認與認知有用顯著影響滿意度($R^2=0.664$)；認知有用、滿意度及信任顯著影響持續使用($R^2=0.668$)；持續使用顯著影響個人績效($R^2=0.523$)，整體模式解釋力 52.3%。個人績效評量中，以「可提升對病患的持續性照護品質」最佳。

結論：透過確立影響醫療專業人員持續使用行為之因素及使用成效，以作為電子轉診平台發展之參考，促進分級醫療與雙向轉診。

關鍵詞：電子轉診平台、系統持續使用後接受模式、認知易用性、信任、使用成效

A058

以 SERVQUAL 服務品質模式探討產婦生產服務品質

The Application of SERVQUAL in the Service Quality of Maternity Care

陳子涵^{ab} 饒瑞玉^b 張育嘉^c 黃麗玲^a 葉德豐^{a*} 林川雄^a

^a 中臺科技大學醫療暨健康產業管理系澄

^b 清綜合醫院中港分院護理部

^c 亞洲大學健康產業管理學系

^a 葉德豐 tfyeh@ctust.edu.tw

摘要

在少子化的社會中，台灣婦女生育率逐年降低，再加上總額制度的實施，不但讓整個醫療市場競爭激烈，也讓醫療院所開始重視服務品質及病人滿意度等議題。本研究即以 SERVQUAL 模式探討產婦對生產服務品質的看法。

本研究以中部某區域醫院生產之產婦為對象進行採用自填式問卷調查，內容為根據相關文獻擬訂之修正 SERVQUAL 量表，分別詢問受訪者對生產服務品質項目之期望與知覺，並根據定義式計算缺口（知覺－期望）。回收有效問卷為 211 份。統計分析包含敘述統計、t 檢定與 ANOVA。

整體服務品質期望、知覺與缺口之平均值分別為 4.76、4.68 與 -0.08。其中有形環境(4.65)、人員服務(4.69)是期望較低的構面；有形環境(4.47)與行政管理(4.53)是知覺較低的構面，同時也是缺口最大的兩個構面(-0.19 與 -0.18)。「停車便利」、「能提供一個安靜的環境，可以充分獲得休息」、「收費合理」、「乾淨整潔的環境（病房、廁所）」、「出院時能夠正確計算所收取的費用」等是缺口最大的 5 個項目(-0.35~-0.19)。非台中市籍、30 歲以下、頭一胎的產婦對服務品質期望顯著較高，非台中市籍、有使用無痛分娩、有住院安胎經驗的產婦在服務品質知覺顯著較高，26-30 歲、無住院安胎經驗產婦之服務品質缺口顯著較高。

產婦對醫院的專業服務品質的評價明顯優於硬體環境與服務流程，因此，除提升專業的技術水準外，醫院仍應致力於環境與服務流程的改善，因為這是產婦最不容易滿足之處。

關鍵詞：服務品質、SERVQUAL、生產、產婦

A059

探討跨領域問題導向學習(PBL)團隊對於高齡健康議題之學習成效與創造力

Exploring the Learning Effect and Creativity of Cross-disciplinary Problem-based Learning (PBL) Team on Gerontology Health Issues

陳婷芸^a 張碩芳^b

^a服務單位 嘉南藥理大學醫務管理系研究生

^b服務單位 嘉南藥理大學醫務管理系副教授

^b聯絡人電子郵件 shofangchang@gmail.com

摘要

在產業追求創新的時代中，高齡健康產業也不例外。因此現今政府致力於以各種健康促進策略以達成活躍高齡化之目標。有趣又休閒的活動，可以透過創新的方式讓高齡者有不一樣的體驗，吸引高齡者的興趣注意及參與。高齡健康議題涉及健康、醫療、高齡照護、運動、休閒等領域，因此透過跨領域團隊的結合，應可達到高齡健康議題的創新目標，透過問題導向學習(Problem-based Learning,PBL)可以選擇感興趣的真實問題或生活中可以連結的實際問題提出解答與應用，從中獲得有效的創新與問題解決的能力。本研究以高齡健康議題為基礎，探討跨領域問題導向學習對於團隊創造力以之影響。本研究以台南市某私立大學休閒暨健康管理學院發放 151 份問卷，回收有效樣本為 80 份，有效回收率為 50.9%，運用偏最小平方法 (Partial least squares, PLS) 進行研究模式建立與假說驗證。研究結果發現，問題導向學習團隊對高齡健康議題的學習成效與團隊創造力皆有顯著正向影響，對於高齡者或慢性病長者設計新的事物、產品可提出良好提議。跨領域團隊對問題導向學習與團隊創造力的調節效果不顯著，可能是在分組團隊時對彼此的專業領域不夠熟悉，間接降低此調節效果。因此，未來研究須思考不同跨領域團隊成員之間磨合與配套機制，以使跨領域學習發揮對團隊創造力之綜效。

關鍵詞：健康促進、跨領域團隊，問題導向學習、創造力

Abstract

In the era of industrial innovation, the gerontology health industry is no exception. Therefore, the government is committed to various health promotion strategies with active aging as the main goal. Fun and leisure activities can give older people a different experience through innovative ways to attract the attention and participation of older people. Gerontology health involves health and leisure, medical care, senior care, sports and other fields, and through the combination of cross-disciplinary teams, it should be able to achieve the innovative goals of gerontology health. Through PBL (Problem-based Learning), you can choose real problems of interest or those connecting to life to propose solutions and applications, and obtain effective innovation and problem solving capabilities. The study discusses the impact of cross-disciplinary problem-based learning (PBL) on team creativity based on gerontology health issues. A private university in Tainan City was selected to issue 151 questionnaires, and the effective sample is 80, with the effective recovery rate of 50.9%. Partial least squares method (Partial Least Squares, PLS) was used for research model establishment and hypothesis verification. The results of the study found that PBL has positive impact on team creativity, which facilitates innovative design for the health elderly as well as those with chronic disease. The mediating effect of cross-disciplinary learning toward PBL and team creativity is not significant. It is perhaps the unfamiliarity among team members with distinct majors, which indirectly reduces this effect. Therefore, future research must consider the possible supporting and adjustment mechanism to facilitate the understanding among cross-domain learning members, which leads to a positive impact on team creativity.

Keywords: health promotion, cross-disciplinary team, problem-based learning, creativity

A060

Optimal timing for patients with respiratory failure to try weaning the ventilator: Building, implementation and clinical integration of artificial intelligence prediction models

Mei-I Sung^{a*}, Chung-Feng Liu^b, Chia-Jung Chen^c, Yu-Ting Shen^b, Shu-Chen Hsing^a, Shian-Chin Ko^a, Kuo-Chen Cheng^d, Jhi-Joung Wang^b

^a Departments of Respiratory Therapy, Chi-Mei Medical Center, Tainan, Taiwan

^b Medical Research Department, Chi-Mei Medical Center, Tainan, Taiwan

^c Department of Information Systems, Chi-Mei Medical Center, Tainan, Taiwan

^d Departments of Internal Medicine, Chi-Mei Medical Center, Tainan, Taiwan

*e-mail:mayyi323@gmail.com

Abstract

How to minimize the duration of ventilator without decreasing quality of care for patients with respiratory failure is a critical issue in intensive care. According to previous investigations, longer use of mechanical ventilator could cause longer hospital stay, the higher risks of complications and mortality. Therefore, predicting weaning from ventilator has long been the subject of intensive care research. However, according to clinical observations, if trying weaning at an appropriate time, the opportunity of final successful weaning will also be higher, but there have been few studies in the past. The study aims to build prediction models for successful trying-weaning from ventilator and realize it into hospital information systems to provide an assistance for clinical staff to make weaning decisions. The study refers to past literature and expert opinions and decides what feature and outcome variables to be observed. The feature variables that affect these results are selected, such as population demographic, ventilator parameters, personal physiological data, and illness history while outcome variables to be predict are hours of on-ventilator before successful weaning. That is, we build multiple models of 12-, 24-, 36-, 48-, 60- and 72 hours of successful weaning. This study used retrospective research method to collected adult ICU patients with ventilators from medical center in southern Taiwan. The data obtained from the electronic medical records for nearly three years from September 01, 2016 to December 31, 2019. First, supervised machine learning algorithms were used to build the predictive models and eventually MLP model was chosen for best model quality (both accuracy and AUC ≥ 0.7). Second, we implemented and integrated the predictive models into hospital information systems for healthcare staff to evaluate if they can try weaning earlier than experience based the AI prediction of hour-before-successful weaning at the same levels of patient safety and medical quality. Our method provides a comprehensive way to judge when to try weaning successfully achieving the goals of personalized medicine and precision medicine.

Key words: Trying weaning ventilator, Machine learning, AI, ICU, Hospital information systems

A061

探討兩性在家庭長者照顧上的角色認知、經驗與感受

Exploring the Role Cognition, Experience and Feelings between Genders on Family Elderly Care

黃子芸^a 何宣穎^a 徐德蓉^a 方俊玫^a 張碩芳^b

^a 嘉南藥理大學醫務管理系暨碩士班 研究生

^b 嘉南藥理大學醫務管理系暨碩士班 副教授

^b shofangchang@gmail.com

摘要

近幾年來台灣因平均壽命的延長，老化速度遠比其他國家快速，繁重的長輩照顧以及職業等多重的角色易引起照顧負荷，進而造成照顧者身心失衡；兩性在不同的照顧負荷下，長期下來甚至對家庭關係及社會造成重大影響。本研究探討兩性在家庭長者照顧上的角色認知、經驗與感受，並瞭解兩性照顧者照顧工作與職場間平衡之取捨情形，以及兩性照顧者面對壓力之因應措施。本研究採用參與觀察與個案研究法進行半結構式深度訪談以蒐集研究資料，訪談時間為2019年12月20日至12月27日，研究對象包括一位之男性，以及五位女性照顧者。參與對象同意並簽署受試者同意書後進行全程錄音。訪談紀錄經繕打成逐字稿，以紮根理論進行資料分析與歸納。結果發現照顧與職場需兼顧時，照顧內容由家庭分工，通常女性負責日常照顧、男性接送就醫。若是全職在家照顧長者，面對壓力則需要喘息時間，多學習正向思考，或者另請看護輪流照顧。另一方面，男女性照顧者普遍存有性別偏見，認為男性較為尷尬、不耐煩，女性較細心，以及存有男主外女主內之傳統觀念。本研究認為照顧者可以透過短暫的自我調適還有家人互相扶持來度過，但長期仍應考量到政府或社會是否有更合適的社福資源或學習資源可以在適當的時機點介入，以紓解照顧者的壓力。

關鍵詞：兩性、照顧者角色、負荷

A062

探討長期照顧機構員工資訊素養對於組織知識管理能力之影響

Exploring the Impact of Staff's Information Literacy on Long-term Care Institutions'

Knowledge Management Capability

張碩芳^a 陳惠芳^b 黃子芸^c

^a 嘉南藥理大學醫務管理系暨碩士班 副教授

^b 嘉南藥理大學醫務管理系暨碩士班 助理教授

^c 嘉南藥理大學醫務管理系暨碩士班 研究生

^c ziyunclaire1106@gmail.com

摘要

近幾年長期機構在人口高齡化的趨勢下，資源管理需求增加，為持續保有競爭優勢，最有效的方式為提升組織的知識管理能力，同時內部員工也必須具備足夠的資訊素養，以便有效的尋找、評估與使用資訊，並將之轉換為有價值的知識與行動。本研究目的為一、瞭解長照機構知識管理能力現況；二、瞭解長照機構員工資訊素養之現況；三、探討員工資訊素養對長照機構知識管理能力之影響性與相關性。本研究採用問卷調查法，依照 2019 年衛生福利部社會及家庭署所提供之全國長照機構名冊，採用分層比例抽樣，並依北中南東區域分層，隨機抽出 400 家長照機構，共 126 份有效問卷，有效回收率為 31.5%。資料分析以迴歸分析進行。結果發現長照機構員工的資訊素養和機構的知識管理能力接普遍偏低。員工資訊素養四大構面「傳統素養」、「媒體素養」、「電腦素養」及「網路素養」對機構知識管理能力皆有顯著正向影響，其中傳統素養對於知識管理能力影響性最高，其次是網路素養。表示培養長照機構員工利用資訊科技進行基本的資料處理能力，例如組織、利用、分析之資訊能力等和網路使用的能力最能有效改善組織知識應用能力。本研究認為機構應提供相關技能訓練課程，加強員工操作資訊科技能力；亦可舉辦各式學習研討會、交流會，增加機構間知識應用之交流，以提升長照機構競爭力。

關鍵詞：長期照顧機構、知識管理能力、資訊素養

A063

提升門診跟診人員服務滿意度

Improve the satisfaction of outpatient follow-up service

^a 陳淑芳

^a 義守大學醫務管理學系碩士在職專班

^a a0953269466@gmil.com

摘要

前言:由於近年醫院評鑑主要概念是以病人為中心,所以為病人提供舒適、適時、有效率的醫療服務更顯重要,再加上民眾消費意識抬高,選擇對自己有價值、符合自己需求的醫療產品及服務院所就醫,也就成為各醫院吸引病人就醫的重要指標根據投書信箱抱怨主要為:跟診人員對病人稱呼及言談溝通方面較不禮貌、較不尊重病人隱私、病人講話時較無耐心、態度不夠和善、給予單張時衛教不夠確實;有鑑於此點,為減少病人抱怨,也希望能提升醫院的競爭力,故著手進行改善對病人就診時的應對模式,提昇護病有效溝通,以提高病人就醫滿意度,進而提升醫院的服務品質,歸納共四大問題點:1.沒禮貌的稱呼病人、2.沒有尊重病人隱私、3.態度和善有禮、4.跟診人員在給予交付藥單、檢查單或其他表單時未能清楚說明及解答疑問。經由討論及措施後,透過人員教育訓練,適當的抒發身心壓力管道及實施獎懲制度並督促人員落實而改善,以提供更優質的服務。

討論:經過這次活動後,發放問卷調查門診服務滿意度已從 46%成長至 79%,整體的效果是顯著的,希望透過改善活動提升跟診人員的服務後,能讓病患感受到更好的服務品質,並期望能增加醫院的整體滿意度。

關鍵詞: 跟診人員、服務滿意度

A064

社區民眾參加健康促進活動意願之相關因素探討

Exploring related factors intentions to participate in health promotion activities for community residents

何宣穎^a 林為森^b 游婉資^c

^a嘉南藥理大學醫務管理系暨碩士班

^b嘉南藥理大學老人服務事業管理系

^c社團法人南投縣欣欣關懷協會

^ahellokitty242061@gmail.com

摘要

背景：我國高齡人口迅速攀升，成功老化的關鍵因素需要規律參與健康促進活動，鼓勵社區民眾主動與參與健康促進活動以維持健康生活是極需重視的議題，藉由瞭解參與健康促進活動意願與其相關影響因素之探討，可使相關單位規劃適當活動並鼓勵民眾積極參與。

目的：瞭解社區民眾健康促進活動型態需求與參與健康促進活動之意願，並以社區參與、社會支持與幸福感三個層面探討影響健康促進活動參與意願之相關因素。

方法：本研究採用橫斷式之訪視調查，研究對象主要為南投縣參與社區據點活動或大型社區活動之民眾。設計結構式問卷經信效度檢測後進行施測，本研究回收問卷為 220 份，無效問卷為 13 份，有效問卷為 207 份。資料收集後，利用描述性統計、獨立樣本 t 檢定、變異數分析(ANOVA)及相關分析等方法，瞭解社區民眾參與健康促進活動之意願與影響意願之相關因素。

結果：研究結果顯示社區民眾的年齡在「幸福感」、「社區認同」、「社區關懷」、「參與程度」、「情感性支持」及「參加健康促進活動意願」有顯著差異，而教育程度在「情感性支持」及「自尊性支持」也有顯著差異。四大構面「社區參與」與「幸福感」、「社會支持」及「參加健康促進活動意願」有顯著正向相關。

結論：鼓勵社區民眾參加健康促進活動，需強化民眾的社區參與、社區支持與幸福感，研究結果可以作為相關單位規劃符合社區民眾身心需求的健康促進活動計畫之參考。

關鍵詞：健康促進、社區參與、社會支持、幸福感、在地老化

Abstract

Background: The elderly population rapidly increases. Regular participations in health promotion activities is a key factor for successful aging, community residents should be encouraged to participate in health promotion activities to maintain a healthy lifestyle. Understanding the intention of participating in health promotion activities and its related factor is important and information can provide organizations for setting up appropriate policies.

Objective: The aim of this study is to investigate needs of the community health promotion activities and the intention to participate in health promotion activities. Three facets including community involvement, social support and happiness are used to explore related factors of participating intentions.

Methods: A cross-sectional survey and visit was conducted, samples were participants in community activities in Nantou County. A structural questionnaire was used after reliability and validity tests. 220 questionnaires were collected and 13 questionnaires were invalid. After data collection, descriptive statistics, independent t test, analysis of variance (ANOVA) and were used to understand the intention of participating in health promotion activities and its related factors.

Results: Results show that "Happiness", "Community identity", "Community care", "Degree of involvement", "Emotional support" and "participating intention of health promotion activities" have significant differences in age. "Emotional support" and "Self-esteem support" are significantly different in education levels. Four aspects of "Community involvement" and "Elderly happiness", "Social support" and "Intentions to participate in health promotion activities" have a positive significant correlation.

Conclusion: Encouraging community participation in health promotion activities requires enhanced community involvement, community support and elderly happiness. Results of the study can provide references for health organizations to set up health promotion activities for community residents.

Keywords: Health Promotion, Community Involvement, Social Support, Happiness

A065

AI based model for predicting major adverse cardiac events in Cardio-Oncology

Wei-Ting Chang^{1,2,3}, Chung-Feng Liu⁴, Yin-Hsun Feng⁵, Zhih-Cherng Chen¹, Jhi-Joung Wang⁴

¹Division of Cardiology, Department of Internal Medicine, Chi-Mei Medical Center, Tainan, Taiwan

²Department of Biotechnology, Southern Taiwan University of Science and Technology, Tainan, Taiwan

³Institute of Clinical Medicine, College of Medicine, National Cheng Kung University, Tainan, Taiwan

⁴Department of Medical Research, Chi-Mei Medical Center, Tainan, Taiwan

⁵Division of Oncology, Department of Internal Medicine, Chi-Mei Medical Center, Tainan, Taiwan

Wei-Ting Chang; cmcvecho2@gmail.com

Abstract

Aims: Although the anti-cancer therapy induced cardiotoxicity has been known, till now it lacks a reliable risk predictive model of the subsequent major adverse cardiac and cerebrovascular adverse events (MACCEs) before breast cancer patients receiving Anthracycline therapy. An artificial intelligence (AI) with machine learning (ML) approach has yet been applied in Cardio-Oncology. Herein, we aimed to establish a predictive model for differentiating patients at high risks developing cardiotoxicity.

Methods: This prospective and single-centre study enrolled newly diagnosed breast cancer patients preparing for anthracycline therapy from 2014 to 2018. We randomized the patients into a 70%/30% split for ML model training and testing. We used 10 variables including clinical, chemotherapy and echocardiographic parameters, to construct a random forest model to predict MACCEs during the follow-up period (median 30 months). Comparisons of the predictive accuracies among random forest, logistic regression, support-vector clustering (SVC), LightGBM, K-nearest neighbor (KNN) and multilayer perceptron (MLP) models were also performed.

Results: Predicting MACCEs using the MLP model showed the best accuracy than the logistic regression, Random Forest, SVC, LightGBM and KNN models. The areas under the curves (AUC) of MLP achieved 0.79 with a sensitivity=1.00, Specificity=0.72. Notably, among the features the dose of Anthracycline, the operation and the baseline left ventricular ejection fraction presented the highest impact on the development of MACCEs in the logistic regression. We also validated the AI prediction model with the clinically enrolled patients.

Conclusions: An AI prediction model is promising for facilitating physicians in predicting MACCEs in breast cancer patients receiving Anthracycline therapy. Further studies to evaluate the impact on clinical practice are warranted.

Keywords: Prediction model, Machine learning, MLP, Cardio-Oncology, Cardiotoxicity

A066

牙科病人對齒顎矯正的認知和口腔健康生活品質之研究-以中部地區牙科診所為例

A Study of Dental Patients' Understanding of Corrective Orthodontics and Oral Health Impact on the Quality of Life – With the Dental Clinics in Central Taiwan as

Examples 曹瓊云^a 陳惠芳^b^a嘉南藥理大學醫務管理系所碩專班^a凱煜國際貿易有限公司^b嘉南藥理大學醫務管理系所^b聯絡人電子郵件 (chf1498@gm.cnu.edu.tw)

摘要

目標：生活品質研究的興起與備受重視，口腔狀況所引起的生活品質議題已廣泛被討論，醫療服務傳遞過程中，民眾對於服務認知與期望的差距，容易產生醫療糾紛與誤解。本研究探討牙科病人對齒顎矯正的認知和口腔健康生活品質關係。方法：在 109 年 1-3 月期間立意取樣 18 歲以上病人，問卷調查中部地區牙科診所的病人，得到 151 位為研究對象。因素分析分類口腔健康生活品質構面；相關分析齒顎矯正的認知和口腔健康生活品質關係；多元複迴歸建構控制病人的基本特性下，齒顎矯正認知的總分和口腔健康生活品質關係。結果：因素分析口腔健康生活品質構面有：功能和心理痛苦、身體限制、社交限制；得分由高到低依次為功能和心理痛苦、社交限制、身體限制；相關分析三者間皆呈現顯著正相關。齒顎矯正認知的總分與功能和心理痛苦呈現正相關($p<0.01$)。多元複迴歸發現齒顎矯正認知的總分、身體限制、社交限制越高分，則功能和心理痛苦分數顯著越高；沒做過齒顎矯正的病人的社交限制分數比有做過齒顎矯正的病人高($p<0.05$)。結論：建議衛生主管機關和牙科診所應定期對牙科病人衛教正確的齒顎矯正知識和口腔健康生活品質，進而能提高對牙齒健康的警示，改善因牙齒造成的功能和心理痛苦、社交限制、身體限制品質。

關鍵詞：齒顎矯正，認知，生活品質、口腔健康衝擊量表

Abstract

Goal: The emergence of the study of the quality of life has received much attention. The issues of the quality of life resulting from oral health conditions have been discussed widely. In the process of the transmission of medical service, the gap between people's understanding and expectation of the service may easily cause medical disputes and misunderstandings. This study examines the relations between dental patients' understanding of corrective orthodontics and the impact of oral health on the quality of life. Method: From January to March 2020, purposive sampling of patients aged over 18 was conducted. In the questionnaire investigation, patients in the 151 dental clinics in central Taiwan were regarded as objects. Factor analysis was used to categorize the dimensions of dental health and quality of life. Correlative analysis was used to examine the understanding of corrective orthodontics and dental health impact on the quality of life. Multiple regression analysis was used, under that conditions of controlling patients' features, to construct patients' the total scores of patients' understanding of corrective orthodontics and the relations between oral health and quality of living. Results: Factor analysis shows that in the dimension of the oral health impact on the quality of life there are: functions, psychological discomfort, physical disability, and social disability. The scores from high to low are psychological discomfort, social disability, and physical disability. Correlative analysis of the three dimensions shows positive correlation. The total scores and functions of the understanding of corrective orthodontic and psychological discomfort have positive correlation ($p<0.01$). The application of multiple regression analysis discovered that the higher the total scores of the understanding of corrective orthodontics, of physical disability and social disability, the higher the significance of the scores of functions and psychological discomfort. Patients that have not received the treatment of corrective orthodontics score higher in social disability than those that have not received the treatment of corrective orthodontics ($p<0.05$). Conclusion: Health authorities are suggested to educate patients with correct knowledge regarding corrective orthodontics and oral health impact on the quality of life to increase awareness of dental health to improve the quality of life functional and psychological discomfort, social disability, and physical disability.

Keywords: Corrective Orthodontics, Recognition Tendency, Quality of Life, Oral Health Impact

A067

南部地區老人認知型活動參與程度和認知障礙關聯性分析

The Degree of Participation of Cognitive Activities by Elderly in Southern Taiwan and the Correlative Analysis of Cognitive Impairment

陳惠芳^a 潘照芬^b 陳雅芝^c

^a嘉南藥理大學醫務管理系所

^b旭安健康事業有限公司附設高雄市私立旭安社區(日間照顧)長照機構

^c嘉南藥理大學醫務管理系所

^a聯絡人電子郵件 (chf1498@gm.cnu.edu.tw)

摘要

目的：實現在地老化、減緩失能，是長期照顧十年計畫 2.0 的目標，高認知活動參與對延緩認知衰退有正向效果，故探討認知型休閒活動參與程度與認知是否異常之影響模式。方法：於 107 年 9 月先通過 IRB 審查，挑選每週有參與桌遊遊戲 120 分鐘，三個月的社區關懷據點老人為實驗組，沒有進行桌遊活動的為對照組，由受過訓練的訪視員在 108 年 1 月期間進行問卷訪談，得到 144 筆為分析對象。邏輯斯迴歸分析控制老人特性、健康狀況，分析認知型休閒活動參與程度和認知是否障礙之關係。結果：社區老人認知障礙比率為 74.5%。卡方分析發現認知是否障礙與實驗組別、保險類別總數、最高教育程度、主要宗教信仰、職業、婚姻狀態、經濟來源有關。邏輯斯迴歸結果有佛教信仰相較無信仰者有較高認知障礙風險(OR=80.282, P<0.05)；已婚喪偶相較已婚有偶者認知障礙較高(OR=13.133, P<0.01)；社區有玩桌遊遊戲一定時間的群組相對於沒有參加的認知障礙風險有顯著較低(OR=0.004, P<0.05)，其它類型的認知活動參與程度和參加認知活動類別數則和認知障礙無關。結論：建議衛生主管機關和社區單位，辦理桌遊和其它認知活動，並提升腦部刺激，鼓勵老人參與學習，導入認知活動需持續，且每次活動時間要足夠，提供新的互動社群，提升社區長者參與活動意願，進而降低認知障礙的風險，延緩其失智。

關鍵詞：老人，認知活動，認知障礙

Abstract

Goal: It is the goal of the 10-year long-term-care 2.0 plan to achieve aging in place and delay in disability. Participating in activities with high cognition will have positive results on the delay in cognitive impairment. Therefore, this study examines the degree of participation in cognitive activities and the impact model of whether cognition is abnormal or not. Method: The project passed the review of IRB in September 2018. Elderly participating in table games with more than 120 minutes a week were chosen to participate in a three-month community care center as the experimental group. The elderly that did not participate in the activity were regarded as the control group. Questionnaire interview was conducted by trained interviewers in January 2019, obtaining 144 entries as the objects for analysis. Logistic regressive analysis was used to analyze the elderly's characteristics and health conditions to analyze whether the degree of participation in cognitive activities is related to cognitive impairment. Results: 74.5% of the elderly in the community have cognitive impairment. With the Chi-square test, it was discovered that cognitive impairment is related to experiment groups, total of insurance categories, the highest education level, major religion, occupation, marital status, and economic sources. The results of logistic regression analysis show that elderly who believe in Buddhism have higher risks of cognition impairment than those without any religion (OR=80.282, P<0.05). Married elderly with a deceased spouse have higher risks of cognition impairment than those married without a deceased spouse (OR=13.133, P<0.01). The elderly group playing table games for a considerable period have lower risks of cognition impairment than those not participating in any table games (OR=0.004, P<0.05). The degree of participation and participation in other kinds of cognitive activities show to have no relation with cognitive impairment. Conclusion: Health authorities and community units are suggested to conduct cognitive table games and other cognitive activities to increase brain stimuli and encourage the elderly to participate and learn. It is necessary to introduce enough time in every activity to allow interactions with new groups and promote intentions of the elderly in the community to participate. Likewise, it will decrease the risk of cognitive impairment and delay Dementia.

Keywords: Elderly, Cognitive Activity, Cognitive Impairment

A068

提升剖腹產執行產後即刻肌膚接觸率之研究

Research on Improving the Skin Contact Rate of Caesarean Section Immediately After Childbirth

林思維^a 洪怡姍^b

^a 嘉南藥理科技大學醫務管理研究所

^b 柳營奇美醫院產房

^aS0805025@gm.cnu.edu.tw

摘要

根據醫策會母嬰親善醫療院所認證標準，建議剖腹產及陰道產新生兒出生後立即與母親進行肌膚接觸分別為十分鐘及二十分鐘以上，可幫助母嬰親子結合成為成功哺乳之關鍵，經查閱 2017 年 1 月-2018 年 12 月的母嬰肌膚接觸率統計報告後，發現 2017 年度中 2 月、6 月、10 月、11 月、12 月剖腹產母嬰肌膚接觸率僅 66.6-88.8%；隔年 2018 年度中 5 月、8 月、9 月、11 月、12 月剖腹產母嬰肌膚接觸率僅 66.7-87.5%。本專案深入分析原因後發現大部分為產婦因麻醉因素感頭暈嘔吐、身體不適、傷口疼痛、開刀房及麻醉科相關醫療人員對肌膚接觸之時機、好處、方式不熟悉，以致執行率偏低，藉由向開刀房及麻醉科相關醫護人員加強宣導產後母嬰肌膚接觸之重要性、肌膚接觸之好處、肌膚接觸對新生兒的影響、肌膚接觸之時機及實施流程、委託母嬰親善委員與麻醉科討論母嬰肌膚接觸未達閾值相關導因、與婦產科醫師討論使用止痛藥物時機、下修剖腹產產後母嬰肌膚接觸率等措施。經對策實施後查閱 2019 年 1 月 1 日至 2019 年 10 月 30 日母嬰肌膚接觸率統計報告，未達剖腹產產後母嬰肌膚接觸率閾值月份為 2 月(87.5%)及五月(80%)，其餘月份剖腹產產後母嬰肌膚接觸率皆達 100%。

關鍵詞: 剖腹產、肌膚接觸、母乳哺育

Abstract

According to the accreditation standards of the Maternal-Infant Goodwill Medical Institute of the Medical Policy Association, it is recommended that the newborns of caesarean section and vaginal birth have skin contact with their mothers for more than ten minutes and more than 20 minutes after birth. After reviewing the statistical report on the skin contact rate of mothers and infants from January 2017 to December 2018, it was found that the skin contact rate of caesarean section in February, June, October, November and December 2017 was only 66.6-88.8% ; In the following year, in May, August, September, November, and December of 2018, the skin contact rate of mothers and infants in caesarean section was only 66.7-87.5%. After an in-depth analysis of the causes of this project, it was found that most of the women were dizzy and vomiting due to anesthesia, physical discomfort, wound pain, surgery room and anesthesiology related medical personnel were unfamiliar with the timing, benefits and methods of skin contact, resulting in a low implementation rate. By strengthening the promotion of the importance of skin contact between mothers and infants, the benefits of skin contact, the impact of skin contact on newborns, the timing and implementation process of skin contact, and the commission of the maternal and infant friendly committee The Department of Anesthesiology discusses the related causes of maternal and child skin contact not reaching the threshold, discusses the timing of using analgesics with obstetricians and obstetricians, and measures such as the skin contact rate of mothers and infants after cesarean delivery. After the implementation of the countermeasures, consult the statistical report on the skin contact rate of mothers and infants from January 1, 2019 to October 30, 2019. The month thresholds for the skin contact rate of mothers and infants after cesarean delivery are February (87.5%) and May (80%)). In the remaining months, the skin contact rate of mothers and infants after cesarean section reached 100%.

Keywords: caesarean section, skin contact, breastfeeding

A069

經產婦於第三妊娠期胎死腹中的護理經驗

The Nursing Experience of a Multipara with intrauterine fetal death In the third trimester of pregnancy

洪怡姍^a

^a柳營奇美醫院產房

^aasd160426@gmail.com

摘要

本文為描述一位經產婦於第三妊娠期胎死腹中的護理經驗，護理期間 2017 年 06 月 22 日至 2017 年 06 月 24 日。運用 Gordon 十一項健康功能型態為評估架構，透過身體評估、觀察及會談等技巧收集生、心理、社會文化、靈性等層面之資料依個案所面臨的周產期失落為重點歸納出三個健康問題：1.疼痛/與引產時子宮收縮疼痛有關 2.哀傷 /與失去期望中胎兒有關 3.情境性低自尊/與無法完成母性任務有關。於照護期間依個案與其家庭需要提供個別性的照護，護理重點在運用藥物與非藥物措施減輕產痛，鼓勵個案說出內心對於失去胎兒的感受，向逝去的胎兒道別與道愛，協助完成母性任務，幫助個案早日度過失去胎兒的沉重打擊，期望藉由此次協助個案面臨周產期胎兒死亡的照護經驗，提供從業人員照護個案時之參考。

關鍵詞:經產婦、胎死腹中、情境性低自尊

Abstract

This case study describes the nursing experience of a pregnant woman in the third trimester of fetal death. The nursing period is from June 22, 2017 to June 24, 2017. Using Gordon's eleven health function types as the assessment framework, through physical assessment, observation, and interview techniques to collect data on the biological, psychological, social, cultural, and spiritual levels, according to the weekly loss of the fetus of the case, three are summarized. Health problems: 1. Pain / related to uterine contraction pain during labor induction 2. grief / related to loss of expectation of the fetus 3. Situational low self-esteem / related to inability to complete maternal tasks. During the period of care, individual care is provided according to the needs of the case and its family. The focus of care is to use medicine and non-drug measures to alleviate labor pain. The maternal task helps the case to get through the heavy blow of losing the fetus as soon as possible. It is hoped that this assistance case will provide the reference for practitioners to take care of the case through the care experience of the fetal death during the perinatal period.

Keywords: Multipara, intrauterine fetal death, low self-esteem

A070

芳香療法之知識，態度與行為—以中台灣成人為例

Adults' Knowledge, Attitude and Behavior toward Aromatherapy in Middle Taiwan

陳姿均 隋安莉*

嘉南藥理大學醫務管理系(所)

*e-mail: anlisui@mail.cnu.edu.tw

摘要

背景：芳香療法(芳療)是利用植物精油的芳香分子，經由嗅吸，按摩或沐浴，進入人體。國內外文獻研究顯示，芳療可以提供生理和心理方的療效，對於一般人之壓力、失眠與焦慮有放鬆的效果。因擔心西藥對身體造成傷害的副作用，芳療成為調節和改善身、心靈的常用保健方法，亦稱為輔助芳療。

目的：透過知識態度行為理論，研究民眾在芳香療法的知識態度與行為，比較個人變項之差異，並探討使用芳療行為的預測因子。

方法：本研究經成功大學人類研究倫理審查委員會申請通過(案號 108-069)。研究對象為中、南部地區成年人，採便利取樣，有效樣本共計 443 份。測量工具包括基本資料、芳療使用狀況、芳療的知識態度與行為問卷(I-CVI: 0.966, S-CVI: 0.966, 知識態度行為三構面之 Cronbach's α 值依序為 0.901, 0.948 與 0.925)。採 SPSS 套裝軟體進行分析。統計方法包含敘述性統計、變異數分析與迴歸分析。

結果：樣本平均年齡 36.9 歲，女性佔 82%(364)人，曾使用芳療之受訪者佔 53%。有使用芳療經驗的民眾在知識、態度與行為之得分均高於未曾使用者($P < 0.000$)。女性在芳療的知識($P < 0.01$)、態度($P < 0.01$)與行為($P < 0.05$)得分均顯著高於男性；平日攝取咖啡因頻率較高者在芳療的知識($P < 0.001$)、態度($P < 0.05$)與行為($P < 0.05$)得分均顯著較高。與自覺健康較差者比較，自覺健康較好者在芳療知識與態度無差異，但是在使用行為上顯著較高($P < 0.05$)。不同年齡、婚姻狀況、教育程度或運動頻率在芳療的知識，態度與行為得分則均無差異。逐步迴歸分析顯示，民眾對芳療的認知($\beta = 0.427$) 與態度($\beta = 0.421$) 可顯著預測其使用行為(Adj. $R^2 = 0.642$)，因此提升民眾的芳香療法知識與態度，對其使用芳香療法之行為有正向影響效果。

結論：曾經使用芳療者、女性、攝取咖啡因頻率較高者或自覺健康較好者對於芳療的認知、態度、使用較佳。整體而言，民眾對芳香療法的知識越高、態度越正向，會促進其使用的行為。建議經由適當管道提高民眾的芳療知識、強化態度，進而增加芳療的使用。

關鍵字：芳香療法、知識態度行為理論

Abstract

Background: Aromatherapy (aromatherapy) is usage of aromatic molecules of plant essential oils to enter the body through sniffing, massage or bathing. Literature research showed that aromatherapy could provide physical and psychological curing efficacy, and had a relaxing effect on stress, insomnia and anxiety. Being anxious for the side effects of western medicine, people accepted aromatherapy, also known as auxiliary aromatherapy, as a common health care method which could regulate and improve the wellbeing of body and mind.

Objective: To study the knowledge, attitudes and behaviors of people in aromatherapy through the KAB theory, to compare the differences of personal variables, and to explore the predictive factors of behaviors using aromatherapy.

Methods: This study was approved by the Human Research Ethics Review Committee of NCKU (Case No. 108-069). A total of 443 valid samples were collected from adults in central and southern Taiwan by convenient questionnaire survey. Questionnaires include basic data, aromatherapy use status, knowledge-attitude-behavior of aromatherapy (I-CVI: 0.966, S-CVI: 0.966, Cronbach's alpha values of knowledge, attitude and behavior were 0.901, 0.948 and 0.925, respectively.). Data analysis was carried out by SPSS 22.0 (IBM), including descriptive statistics, variance analysis and regression. .

Results: The average age was 36.9, 82% (364) were female. 53% of the respondents had used aromatherapy. People with experience in aromatherapy had higher knowledge, attitude and behavior scores than those who did not ($P < 0.000$). Women's knowledge ($P < 0.01$), attitude ($P < 0.01$) and behavior ($P < 0.05$) scores were significantly higher. People with higher caffeine intake frequency had higher scores of knowledge ($P < 0.001$), attitude ($P < 0.05$) and behavior ($P < 0.05$), significantly. Compared with those having poor self-perceived health, people with better one had higher aromatherapy behavior score ($P < 0.05$), however, no difference in knowledge and attitude. There is no difference in the three scores for other personal variables, such as age, marital status, education or exercise frequency. Stepwise regression showed that the usage of aromatherapy could be predicted by one's knowledge ($\beta = 0.427$) and attitude ($\beta = 0.421$) (Adj. $R^2 = 0.642$). Thus, better knowledge and attitude had a positive effect on aromatherapy usage.

Conclusion: Women, aromatherapy user, one with higher caffeine consumption, or one in better self-perceived health showed better knowledge, attitude and usage to aromatherapy. The higher knowledge score indicated a more positive attitudes towards aromatherapy usage. We suggested increasing people's aromatherapy knowledge through appropriate propaganda, which would strengthen positive attitudes to achieve promotion of aromatherapy.

Keywords: aromatherapy, knowledge, attitude, behavior

A071

以重要績效分析(Importance Performance Analysis, IPA)探討民眾對於嚴重特殊傳染性肺炎(COVID-19)防疫措施之重要程度與滿意程度

Explore the public awareness on the importance and satisfaction of the pandemic-prevention policies for COVID-19 by Importance Performance Analysis

陳佳音^a 柯妍嬪^b 薛淑青^c 林宗憲^d 陳美杏^e
^{abcde}高雄醫學大學附設中和紀念醫院 醫品病安管理中心
^d高雄醫學大學附設中和紀念醫院 心臟血管內科
^{dc}高雄醫學大學附設中和紀念醫院 院長室
^b1080559@ms.kmuh.org.tw

摘要

為因應嚴重特殊傳染性肺炎(COVID-19)疫情,高雄醫學大學附設中和紀念醫院做了許多的防疫措施以保障院內同仁、病人及病人家屬的安全與健康。本研究使用重要績效分析(Importance Performance Analysis, IPA)探討民眾對於嚴重特殊傳染性肺炎(COVID-19)防疫措施之重要程度與滿意程度。

本研究於2020年3月起進行問卷發放,回收347份,回收率達90.6%,信度:Cronbach's α 值為0.946。透過問卷所得到的各項服務品質重要度與滿意度總平均值,分別為4.771與4.832。進一步利用各題平均的數據,繪製出顧客服務品質需求之重要度績效矩陣圖。

結果顯示第一象限「繼續保持(Keep Up the Good Work)」中入口分流、量體溫、酒精乾洗手、戴外科口罩、詢問民眾 TOCC、整體防疫措施此六項為特別重視及滿意的項目應要繼續保持。第三象限「次要改善(Low Priority)」中醫院門禁管制時間、住院訪客探訪時間、陪伴人數限制、慢性處方籤領藥(得來速)、停車場管制、網路與 APP 掛號此六項防疫措施的滿意度與重視度得分低於總平均,表示不用太過於集中資源於這些項目的改善。無任何項目落在第二象限「過度努力(Possible Overkill)」及第四象限「優先改善(Concentrate Here)」,可能原因為民眾對於問卷項目皆認為高重要性及高滿意度。

關鍵詞: (嚴重特殊傳染性肺炎、重要績效分析、滿意度分析、防疫措施)

Abstract

In response to the COVID-19 pandemic, Kaohsiung Medical University Chung-Ho Memorial Hospital has done many measures to protect the safety and health of staff, patients and their families in the hospital. The study explored the public awareness on the importance and satisfaction of the pandemic-prevention policies for COVID-19 by Importance Performance Analysis (IPA).

We collected 347 patients' questionnaires and overall response rate is 90.6%. Cronbach's α is 0.946. The two scores for importance and satisfaction of service quality average score were 4.771 and 4.832, respectively. Use the average data of each question to draw the importance performance matrix of service quality.

The results are as the followings: Six items in the first quadrant (Keep Up the Good Work) included inlet diversion, body temperature measurement, alcohol disinfection, wearing surgical masks, asking about TOCC, overall anti-epidemic measures. Six items in the third quadrant (Low Priority) included entry time control, inpatient visiting time control, accompanying-person numbers limit, Drive-thru strategy for chronic illnesses medicine, parking lot control, internet/APP registration. No item falls in the second quadrant (Possible Overkill) and the fourth quadrant (Concentrate Here). The possible explanation is that the questions in the questionnaires are of high importance and high satisfaction.

Keywords: (Coronavirus disease 2019, COVID-19, Importance Performance Analysis, IPA, Satisfaction analysis, Anti-epidemic measures)

A072

心電圖信號中 P 和 T 點的混合偵測方法

Hybrid detection method of P and T points in ECG signal

洪境鴻^a 詹益禎

國立彰化師範大學資訊工程學系

^a min8984078@gmail.com

摘要

心電圖 (Electrocardiography、ECG) 是一種經胸腔以時間為單位記錄心臟的電生理活動，並通過皮膚上的電極捕捉並記錄下來的診療技術，而要從 ECG 中判斷出心臟是否有問題則需要以特徵點作為依據。在特徵點判斷中，比較常見的有五個特徵點分別是 P、Q、R、S、T，而最容易觀察的特徵點為 R 點，因為 R 點的波形最為明顯，而 Q 和 S 也由於在 R 點左右較好辨認，而 P 和 T 由於波形的振幅較小，且有許多病徵會讓這兩個特徵點可能出現倒轉、消失、或作用兩次的情況導致於判斷較為困難，因此本篇論文所提出的方法著眼於 P 和 T 兩點的判斷，並以 QTDB 心電圖資料庫作為判斷準確度的依據，希望提高 P 和 T 兩點判斷的正確率。

本研究先透過中值率波器和移除基線飄移來移除雜波，之後以 So and chan 的方法找出 R 點，並再向下找出 Q 和 S，在尋找 P 和 T 點時，我們先標出每個 R_R 間期，再以每個 QRS 複合波的前後設定一個搜尋窗口，而窗口的設置為，往前三分之一個 R_R 間期找 P 點，往後三分之二個 R_R 間期找 T 點，在搜尋 P 點和 T 點時，先找出搜尋窗口中的最大值和最小值作為預設的 P 點和 T 點，之後以斜率進行分析，找出正確的特徵點。將最後的結果和 QTDB 的資料去做比對得到了 P 點的正確率達到 94%，而 T 點也有達到 92% 的準確率。

關鍵詞：So and Chan, 心電圖, 特徵點, Pan-Tompkins

Abstract

Electrocardiography (ECG) is a diagnostic technique that records the electrophysiological activity of the heart through the chest cavity in time units, and captures and records it through the electrodes on the skin. To determine whether the heart has a problem from the ECG, it is necessary to use the feature points as a basis. In the judgment of feature points, there are five more common feature points are P, Q, R, S, T. The most easily observed feature point is R point, because the waveform of R point is the most obvious, and Q and S are also better recognized because they are around the R point. The amplitude of the P and T waveforms is smaller, and there are many symptoms that make these two feature points may reverse, disappear, or act twice, which makes the judgment more difficult. In this paper we propose a method focuses on the judgment of P and T, and uses the QTDB ECG database as the basis for judgment accuracy, hoping to improve the accuracy of the judgment of P and T.

In this paper, we first remove the clutter through the median rate filter and remove the baseline drift, then use the So and chan method to find the R point, and then find the Q and S downwards. When looking for the P and T points, We first mark each R_R interval, and then set a search window before and after each QRS complex. The window set to find the P point is one-third R_R interval before the QRS complex, and two-thirds R_R interval after the QRS complex for the T point. When searching for P and T points, first find the maximum and minimum values in the search window as the default P and T points, and then analyze the slope to find the correct feature point. By comparing the final result with the QTDB data, the accuracy rate of P point is 94%, and the accuracy of T point is 92%.

Keywords: So and Chan, ECG, Feature Point, Pan-Tompkins

A073

以多元策略介入有效營造醫病共享資源團隊

張基生^a 張炳欽^b 賴秀娟^a

^a奇美醫療財團法人柳營奇美醫院品質管理中心

^b奇美醫療財團法人柳營奇美醫院感染科

^aa01096@mail.chimei.org.tw

摘要

醫療技術持續創新，民眾對醫療知識取得越來越方便，但也可能被廣告資訊、假訊息對醫療誤導視聽。個案醫院自 2016 年與醫策會同步推動醫病共享決策(Shared Decision Making, SDM)深根活動，鼓勵團隊發展輔助工具(Patient Decision Aids, PDAs)，有效讓醫病關係不再只是阻力、而是助力。其多元對策 1.高層長官重點會議佈達 2.結合國家癌症計畫從癌症重點治療優先推動 3.舉辦工作坊 4.擬定啟案獎勵 5.鼓勵新型輔助工具 6.鼓勵對外發表交流 7.發展 E 化 PDAs 平台 8.建構學習資料庫 9.舉辦跨院 SDM 成果發表等。累計培植 SDM 講師 2 名、輔導員 9 位、25 個科部、116 種子參加、發展 26 項新型輔助工具；員工對 SDM 推動評分：整體滿意度達 88.89%、跨職類團隊合作 89.81%、長官支持度 93.52%。推動初期，醫療人員多直覺為另一項複雜且耗時的工作，透過專家實務工作坊，可有效強化研發人員對於輔助工具的發展識能，結合臨床作業，有效加快民眾對治療選擇的時間、減少因焦慮導致的治療延宕狀況，亦可大幅降低整體住院照護的時間。病人做一個合適的醫療決策是非常的困難的，個案醫院致力推動 SDM 精神，發展合適在地的輔助工具，有效推升醫療照護品質及營造友善照護環境。

關鍵詞：醫病共享決策(Shared Decision Making, SDM)

A074

檢傷培訓對急診護理人員成效探討

Exploring the Impact of Triage Training on the Emergency Triage Nurses

楊雯婷^{ab}、林育瑩^{ab}、張碩芳^c

^a 嘉南藥理大學醫務管理系暨碩士班 研究生

^b 國立成功大學附設醫院急診部 護理師

^c 嘉南藥理大學醫務管理系暨碩士班 副教授

^{bc} shofangchang@gmail.com

摘要

背景：台灣急診自 2010 年開始統一使用檢傷五級分類電腦化系統進行檢傷分類。目前台灣檢傷分級均由護理人員來執行，分級的正確與否，不僅影響病患的等候時間，更攸關急診病患的照護品質。本研究採橫斷式調查法，探討南部某醫學中心急診護理人員檢傷培訓成效。研究目的：一、急診護理人員基本屬性在檢傷分級能力的差異性。二、檢傷培訓對急診護理人員檢傷分類之成效。方法：採三組分析比較，一為檢傷團隊護理人員、二為有檢傷經驗之非檢傷團隊護理人員、三為非團隊人員並且無檢傷經驗，三組人員根據 TTAS 五級檢傷分類系統，給予人員採不記名方式進行檢傷分級能力測驗表，分析比較三組得分及各屬性與檢傷能力之相關性。本研究工具是根據急診相關文獻及檢傷小組討論案例自擬而成「檢傷分級能力測試表」，並經由專家確認效度。研究結果：本研究共收案 75 位護理人員，結果發現檢傷小組測驗分數明顯高於其他兩組人員，故有受過檢傷小組培訓人員檢傷能力明顯有正成長。另發現急診護理人員之檢傷年資、教育程度高及有 ICU 訓練者，檢傷分級能力均顯著高於較低者及無 ICU 訓練者($p < 0.01$)。而年齡、護理年資、專業證照及能力進階則無統計上之顯著差異。結論：同樣使用 TTAS 系統下，曾受檢傷訓練過的護理人員會較無檢傷過護理人員有較高的檢傷分類正確性，因此透過檢傷團隊訓練更能夠效提升急診護理人員檢傷分類正確性，進而提升醫療品質。

關鍵詞：急診、檢傷團隊、檢傷分級能力、TTAS

A075

The Effect of Mechanical Bowel Preparation in Elective Colorectal Surgery

Hsiang-Wei Hu^a Hui Ping Sun^b

^aTainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Department of surgery

^bTainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Department of nursing

girlwithscalpel@gmail.com

Abstract

Mechanical bowel preparation(MBP) prior to elective colorectal surgery had been widely accepted for benefit such as reduced colon bulk, therefore, decreased bacterial colonization and minimizing postoperative infection and leakage. However, in recent decades, MBP had significantly raised concerns on patient satisfaction, marked electrolyte imbalance, and dehydration during pre-operative period. The aim of our study is to evaluate the effect of mechanical bowel preparation in elective colorectal surgery through evidence-based-medicine. Based on steps of evidence-based practice, the answerable clinical questions using PICO was formed under both Chinese and English keywords along with synonyms searched using the MeSH database. The search techniques utilized were Boolean logic which allowed for combing free-text term and controlled vocabulary term and connecting with OR; and further, PICO elements were searched and connected with AND until April, 2020. The correspondent meta-analysis including 23 RCT and 13 observational study showed no significance of infection rate(NNT:0.98,95%CI 0.78-1.24 ; NNH:59)leakage rate(NNT:0.94,95%CI 0.70-1.25 ; NNH:100), mortality(NNT:1.27,95% CI 0.62-2.61 ; NNH: 333) in patients with MBP versus Non-MBP. The result concluded that the use of MBP does not effect the incidence of post-operative infection, leakage rate, nor mortality. In order the decrease postoperative complications, sterilization technique during operation and precision of surgeon techniques are both important factors. Hence, routine practice of mechanical bowel preparation should be reconsidered.

Keywords: *Mechanical Bowel Preparation* · *Elective Colorectal Surgery* · *Effect*

某護理之家降低住民吸入性肺炎發生率之改善專案

An Improvement Case Regarding the Decrease of the Incidence Rate of Residents' Aspiration Pneumonia in a Nursing Home

潘照芬^a 柯佳芬^b 陳惠芳^c 蔡季庭^d

^{ab} 旭安健康事業有限公司附設高雄市私立旭安社區(日間照顧)長照機構

^a 高雄科技大學工業工程管理系 博士班

^{cd} 嘉南藥理大學醫務管理系所

^c 聯絡人電子郵件 (chf1498@gm.cnu.edu.tw)

摘要

目的：肺炎為國人十大死因第三位，某護理之家發現 105 年度吸入性肺炎感染發生率為 0.39%，106 年 1-4 月上升至 1.07%。故分析吸入性肺炎感染原因和問題，執行鼻胃管灌食、口腔照護護理規範和胸腔扣擊方案，降低住民吸入性肺炎發生率低於目標值 0.27%。方法：收集 105 到 106 年 9 月，有發生吸入性肺炎感染事件的住民資料，品質指標監測定期分析報告單、問題分析診斷表、相關作業規範、訓練評值表和資料、技術稽核表，回溯分析改善前、執行方案過程、改善後狀況。以折線圖和管制圖分析吸入性肺炎感染發生率趨勢和 6 個標準差的管制情形；特性要因圖歸納要因；優先次序矩陣圖分析改善方案優先順序。結果：105 至 106 年 4 月，吸入性肺炎感染率的管制圖中心線之兩邊有 15 個連續點在一個標準差之內，表示流程中有特殊原因變異存在，經過管制控制後，106 年 1-9 月的觀察則無違反規則。平均感染率由 105 年的 0.39% 下降到 0.24%。機構制定和執行鼻胃管灌食照護規範及稽核表、辦理鼻胃管灌食照護在職教育、制定胸腔扣擊照護稽核表及訂定罰則、制定定位床頭抬高 45 度角度、增訂臥床住民口腔照護規範、修訂住民口腔護理規範，確實產生改善效果。結論：建議護理機構在資源可及下，制定作業規範和落實實施及定期修正，定期安排教育訓練和稽核，導入照護過程，提升住民安全。

關鍵詞：吸入性肺炎，鼻胃管併發症，口腔照護

Abstract

Goal: Pneumonia is ranked number three of the top ten leading causes of death in Taiwan. In 2016, the incidence rate of aspiration pneumonia nursing home is 0.39%. From January to April 2017, it increased to 1.07%. Therefore, this study examines the reasons and problems of aspiration pneumonia. Nasoenteric tubes, oral care, and chest percussion were executed to decrease the incidence rate of residents' suffering from aspiration pneumonia to the target value of 0.27%. Method: Data of quality indicator monitoring of residents suffering from aspiration pneumonia, periodical analysis reports, problem analysis and diagnosis forms, related operation procedures, training evaluation forms and data, technical audit forms, pre-regression analysis improvement, scheme execution process, and follow-up conditions from 2016 to September 2017 were collected. Line graph and control chart were used to analyze the trend of incidence rate of aspiration pneumonia and the 6 standard deviation controls. Cause and effect diagram was used to analyze the major causes. Precedence and priority matrix chart was used to analyze the improvement schemes. Results: From 2016 to April 2017, there were 15 consecutive points in a single standard deviation on both sides of the control chart of the infection rate of aspiration pneumonia. It indicates that there were special factor variations in the process. After control, from the observations from January to September 2017, there was no violation of rules. The average infection rate decreased from the 0.39% in 2016 to 0.24%. The organization made and execute nasoenteric tubes nursing guidelines and checklist, conducted in-service education of nasoenteric tubes nursing, made chest percussion checklist and penalty, made the guideline to allow the raising of the bed head end to 45 degrees, added oral care guidelines for bedridden residents, and amended oral care guidelines for residents. It produced affirmative improvement results. Conclusion: With accessible resources, nursing homes are suggested to made operation guidelines and consolidate its implementation and amendment, arrange regular educational training and auditing, and introduce nursing process to promote residents' safety.

Keywords: *Aspiration Pneumonia, Nasoenteric Tubes Complications, Oral Care*

A077

運用 AMISTAD 系統改善 ST 上升型急性心肌梗塞病人治療時效之研究

李姿瑩^{a,b} 郭光明^a 廖家德^b

^a義守大學醫務管理系碩士在職專班

^b財團法人奇美醫院

free18983@yahoo.com.tw

摘要

背景： AMISTAD (Acute Myocardial Infarction Software Technology-Aids Decision) 急性心肌梗塞科技輔助軟體系統為緊急醫療救護系統，目標是縮短 ST 上升型急性心肌梗塞病人(STEMI)到心導管室行氣球擴張時間(door to balloon, D2B)。

目的： 研究運用 AMISTAD 系統在臨床上能否改善 STEMI 病人的照護品質。

方法： 研究南部某醫學中心於 2017 年 7 月 1 日到 2018 年 12 月 31 日的 STEMI 病人，採病歷回溯法依 AMISTAD 系統介入分新制組共 40 例，舊制組共 43 例，分析系統能否縮短 D2B 時間及病人住院天數。

結果： 兩組分析結果在聯絡心臟科醫師時間，新制組平均數為 5.4 分鐘，舊制組為 8.7 分鐘，兩組間統計達顯著差異(P=0.018)；在 D2B 標準<90 min 新制組平均 57.7 分鐘，舊制組為 74.4 分鐘，兩組達顯著差異(P=0.005)。住院天數新制組的平均數為 4 天，舊制組為 6 天，兩組間統計上有顯著差異(P=0.037)。

結論： 綜合以上兩項分析結果新制組運用急性心肌梗塞科技輔助軟體系統介入在執行心電圖時間、心電圖判讀、聯絡心臟科醫師、啟動心導管及執行氣球擴張時間及 D2B 標準<90 min 時間較短；在住院天數新制組使用 AMISTAD 系統可縮短住院天數二天。

關鍵詞： 急性心肌梗塞科技輔助系統、ST 上升型急性心肌梗塞、氣球擴張時間。

A078

個案管理模式運用於初次診斷子宮頸癌病人的護理評估問題處置實證分析 -以南部某區域教學醫院為例

Evidence-Based Analysis on the Application of Case Management Model on Nursing Evaluation Problem Handling for Patients First Diagnosed With Cervical Cancer - With the Teaching Hospital in Southern Taiwan as Examples

黃淑惠^a 陳惠芳^b^a 嘉南藥理大學醫務管理系所碩專班^a 財團法人柳營奇美醫院^b 嘉南藥理大學醫務管理系所

a 聯絡人電子郵件 (E-mail: 860829@mail.chimei.org.tw)

摘要

目的：子宮頸癌是國內婦女癌症發生率的第一位，接受治療計畫前產生的問題反應會影響接受治療的意願，本研究醫院在 2007 年起發展個案管理模式迄今，故探討個案管理模式運用於初次診斷子宮頸癌病人的護理評估問題處置實證分析。方法：收集南部某區域教學醫院 2013~2018 年間婦癌病人資料庫，篩選出初次診斷子宮頸癌病人 120 位，個案師採用質性的內容分析法及描述性分析，分析病人之護理評估問題處置項目語幹。結果：初次診斷子宮頸癌病人的護理評估問題處置，共分析出 54 個語幹，再依據臨床照護相關問題與衛教內容分類內涵語幹。放射線治療副作用衛教 75%、心理症狀 73.3%、化學治療副作用衛教 50%、傷口護理衛教 43.3%、治療過程說明 40%、生理症狀 37.5%、發燒衛教 31.7%、疼痛衛教 31.7%、陰道出血及分泌物 19.2%、治療後衛教 18.3%、術後復健衛教 10.8%、淋巴水腫衛教 10%、治療前衛教 7.5%及手術副作用衛教 1.7%共 14 大類。症狀語幹出現前三大為心理症狀語幹 21 個，生理症狀 7 個，治療後衛教 5 個。結論：病人的護理評估問題處置多為放射線治療副作用衛教、心理症狀、化學治療副作用衛教；處置的內容以心理症狀、生理症狀、治療後衛教為主。個案師適時依據病人的個別性照護與衛教，減輕病人面對治療所產生之焦慮及增進生活品質，更可監測病人之臨床治療指引遵循率及接受治療完治率。

關鍵詞：個案管理模式、子宮頸癌、護理評估問題處置、接受治療意願

Abstract

Goal: Cervical cancer has the number one cancer incidence rate in Taiwanese women. Problems arising from the commencement of treatment plan will affect the patient's willingness to receive treatment. The research hospital has been developing case management model since 2007, and in this study evidence-based analysis was performed on the application of case management model on nursing evaluation problem-handling for patients first diagnosed with cervical cancer. Method: data on gynecological cancer patients between 2013 and 2018 from a teaching hospital in southern Taiwan were collected. 120 patients first diagnosed with cervical cancer were screened. The case manager conducted qualitative content analysis and description analysis to analyze the nursing evaluation problem-handling themes of the patients. Results: a total of 54 themes were identified for the nursing evaluation problem-handling of patients first diagnosed with cervical cancer, which were then classified into connotation themes based on problems related to clinical care and contents of health education. The following 14 major categories were identified: health education on complications of radiation therapy, 75%; psychological symptoms, 73.3%; health education on complications of chemotherapy, 50%; health education on wound care, 43.3%; description of treatment process, 40%; physiological symptoms, 37.5%; fever health education, 31.7%; health education on pain, 31.7%; vaginal bleeding and secretion, 19.2%; post-treatment health education, 18.3%; post-surgical rehabilitation education, 10.8%; health education on lymphatic edema, 10%; pre-treatment health education, 7.5% and complications of surgery, 1.7%. The top three symptom-related themes were psychological symptoms with 21 themes, physiological symptoms with 7 themes, and post-treatment health education with 5 themes. Conclusion: the nursing evaluation problem-handling of patients were mainly on the health education of complications of radiation therapy, psychological symptoms and health education on the complications of chemotherapy; the contents of handling were mainly psychological and physiological symptoms and post-treatment health education. The timely individualized patient care and education administered by the case managers can not only help to reduce anxiety of patients on treatment and improve the quality of life, but also monitor the compliance of clinical treatment guidelines and treatment completion rate.

Keywords: case management model, cervical cancer, nursing evaluation problem handling, willingness to receive treatment

A079

長期照顧機構住民非計畫轉至醫院住院的風險因子和改善策略

Factors and Improvement Strategies Associated with Unscheduled Hospitalization in long-Term Care Institution Residents

陳珮妏^a 陳惠芳^b 王淑慧^c

^a 嘉南藥理大學醫務管理系所

^b 嘉南藥理大學醫務管理系所

^c 融園護理之家

^b 聯絡人電子郵件 (chf1498@gm.cnu.edu.tw)

摘要

目的：非計畫性轉至急性醫院住院監測是長照機構評鑑的品質指標，因住院造成身體永久性功能障礙，影響生活品質和財物損失，本個案研究某長期照顧型機構住民非計畫性轉至急性醫院住院的風險因子和改善策略。方法：收集 103 到 104 年非計畫性轉至急性醫院住院的住民資料庫，合計 89 件為分析對象，以折線圖和管制圖分析非計畫性轉至急性醫院住院比率趨勢和 6 個標準差的管制情形；訪談機構主任 1.5 小時，錄音收集非計畫性轉至急性醫院住院的原因和改善策略、並進行內容語幹分析。結果：103 年非計畫性轉至急性醫院住院比率 11.81%，104 上升到 12.25%，管制圖在 2.3 月時超過 2 個標準差。內容語幹和魚骨圖分析原因可分成員工和訪客管理、住民用藥管理、住民個人特質、住民疾病、設備與耗材管理、環境六類。內容語幹分析 103-104 年改善策略有用藥改善、住民教育、住民自立訓練、住民管理、員工教育訓練、員工落實照護措施和監督與管理、耗材管理、設施管理、器具管理、膳食管理、訪客管理、跌倒管理。機構經由管理控制後在 2 個標準差內。結論：建議長照機構應做好感染控制、員工照顧技巧教育訓練、空間管理、設施管理、住民自力支援訓練，避免非計畫性轉至急性醫院住院所帶來的活動受限、營養不足以及院內感染等，更加重功能衰退的機會和財物損失與威脅危害。

關鍵詞：非計畫性轉至急性醫院住院、風險因子、長期照顧機構

Keywords: *Unscheduled Hospitalization, risk factors, Long-term Care Institution*

A080

Impact of Mechanical Bowel Preparation in Elective Colorectal Surgery- A Meta-analysis

Xihh-Xuh Chen^a Hsiang-Wei Hu^b Hui Ping Sun^c

^aTainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Department of critical care medicine

^bTainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Department of surgery

^cTainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Department of nursing

^a210723@tmh.org.tw

Abstract

Mechanical bowel preparation prior to elective colorectal surgery remains a routine practice to date. However, oral mechanical bowel preparation and cleansing enema may cause discomfort to the patients. Currently, many national and international studies reveal that no mechanical bowel preparation doesn't increase the risk of surgical site infection. This study explores the effects of mechanical bowel preparation and no mechanical bowel preparation on postoperative infection in patients undergoing elective colorectal surgery. The answerable clinical questions using PICO should be formed based on steps of evidence based practice and Chinese and English keywords and synonyms were searched in the MeSH database. The search techniques utilized were Boolean logic which allowed for combining free-text term and controlled vocabulary term and connecting with OR; and further, PICO elements were searched and connected with AND until April, 2020. A meta-analysis of published articles was conducted using the Review Manager 5.3 software. A total of 63 papers were retrieved. Two independent reviewers excluded duplicates and those do not meet the inclusion criteria. The remaining studies included in qualitative synthesis. Using the Cochrane collaboration tools to assess risk bias of the included articles, the study conducted a meta-analysis using selected RCT with low risk of bias. Seven randomized study were included in the meta-analysis. Among the studies, mechanical bowel preparation was not associated with any difference in surgical site infection (OR:1.04, 95% CI: 0.83 to 1.31, p=0.71), anastomotic leak rates (OR:0.88, 95% CI: 0.63 to 1.24, p=0.47), hospital length of stay (MD:-0.12, 95% CI: -0.42 to 0.19, p=0.46) and mortality (OR:0.83, 95% CI: 0.51 to 1.37, p=0.47), compared with no mechanical bowel preparation group. This meta-analysis could provide relevant and up to date information to professionals in clinical decision making, thus contributing to simplify healthcare processes and improve clinical effectiveness based on considering the risk of bowel preparation and physical discomfort.

Keywords: *Impact · Mechanical Bowel Preparation · Elective Colorectal Surgery · Meta-analysis*

A081

「1922 防疫諮詢專線」 客服人員對 COVID-19 之認知與態度調查

廖苡捷^{1,*}、郭彥宏¹

嘉南藥理大學醫務管理系（所）

摘要

目的：中國武漢 2019 年 12 月爆發肺炎群聚，世界衛生組織稱為 Coronaviruses Disease 2019(COVID-19)。因應防疫，台灣成立防疫科技國家隊，其中「1922 防疫專線」春節期間超前部署全力調度場地、座席、系統及電路資源亦陸續在台北、三重、桃園等據點將原配置客服 16 人擴增客服團隊至 320 人。客服對 COVID-19 防疫認知與態度難免影響民眾的反應。本研究目的在調查客服對「COVID-19」認知、態度。**方法：**以北部某客服中心之客服人員為抽樣來源，採用橫斷式調查法及結構式問卷方式，研究期間 2020 年 3 月 29 日~2020 年 4 月 10 日，有效問卷回收 26 份，回收率為 100%。**結果：**隨著疫情發展與防疫政策不斷更新，統計至 3/26 前五大諮詢項目共 28 萬件，民眾主要諮詢依序為：隔離問題、請假問題、自主管理問題、口罩問題、及入出境限制問題等。客服對 COVID-19 的資訊來源主要為電視媒體 (92.3%)，對防疫行為態度以經常洗手 (69.2%) 及不參加大型聚會並減少不必要外出或探訪 (57.7%) 兩項為主。**結論：**身為國家防疫第一線，接通數最高峰都是指揮中心直播時間，面對突如其來政策宣布須轉成簡易 QA，透過專業訓練，沉重使命感遇各式問題要能理解民眾不安的情緒，雖然不一定能回答盡善盡美，仍是防疫最佳溝通平台。本研究針對研究結果提出建議，提供作為後續發展防疫政策與教育訓練之參考。

關鍵詞：COVID-19、防疫專線、客服人員、教育訓練

A082

前瞻導向健康園區 AI 照顧導入服務項目探索研究-以嘉義縣民雄鄉為例

Critical Success Factors of Proactive Multifunction and Ai cares health park development model of Minsyong Township in Chiayi County

呂怡慧^a 陳思妤^b 翁怡莘^c 郝鳳鳴^a 林茂安^c

^a 國立中正大學高齡跨域創新研究中心

^b 國立中正大學成人及繼續教育學系

^c 戴德森醫療財團法人嘉義基督教醫院

^a E-Mail: cych04815@gmail.com

本文摘要

前瞻導向研究助於了解相關發展是跨專業的合作，前瞻導向的策略模組更是跨專業開發團隊極需要的遠見，健康園區是未來高齡者居住模式的發展創新模式，AI 照顧趨勢，許多國家投入相關發展產業，也有相關議題的討論，本研究集結高齡者的看法，以及專家學者的意見，前瞻性的探討 AI 服務項目導入健康園區可行性。

本研究運用焦點座談以及問卷調查法不同的研究方法進行研究，有其他層面的發現。焦點座談結合產業、官方、學術、醫療、社工、民眾...等，探索前瞻導向健康園區 AI 照顧導入服務項目，發現其需求功能為健康促進、建築空間規劃、居家安全等需求；問卷調查法，以老年人口最多的嘉義縣為例，500 份問卷調查，發現智慧照護對 75 歲以下的人，是有意識理解的填答，並且有自己的想法。「巡樓機器人」，協助管理員巡視各樓層，有顯著需求，特別是 56-65 歲的年齡層。

健康園區未來導入運用 AI 智慧照護科技，具有可行性、發展性的建置，也是可期待的新型服務模式。大多高齡者對 AI 智慧照顧的看法，希望以多功能實用導向為主，因此 AI 照顧科技若結合健康、建築、居家的面向進行實用性的規劃，利用於高齡者的日常生活，將會為照顧加入新的助力，有利於未來高齡產業發展，並跨專業合作打造舒適的高齡生活。

關鍵詞：前瞻導向、AI 照護、健康園區

Abstract

Prospective research is the key to understand that development is mutually related to multi-disciplinary co-operation, the cross-development team must have a vision towards the tact's and module of the professional research. The health park is the new innovation pattern, for the development and advancement of the residing elders. Ai taking the trend into consideration that, the country must invest in industrial development, should also discuss about the agenda, this research will gathers the opinion of the elder peoples as well as experts and scholars to prospectively discuss the feasibility of introducing Ai service in the health parks.

This research is focusing on multiple discussion with peoples, conducting surveys and try to sort out different ways to get much opinion and suggestions. The main point of discussion also involves industrial areas, offices, academic, hospitals, social & public places, so that it can explore the prospective research and can introduce Ai service projects for the health parks, and also find new ways of health promotion, plan to build space, home safety, and questionnaire methods. Ex... in Minsyong township, which has largest number of elderly peoples and conducted an questionnaire survey, which shows that, the people's under the age of 75 years old, can better understand the functioning of the Ai care. "The patron robot" can help the administrator to inspect each floor, especially for the people from the age group of 55-65 years old, can accept the service of the robot.

In the future, the health park will introduce an Ai care and advance technology, expecting a new service pattern which is feasible and well developed. Most of the elder peoples expects to get multi-functional Ai care and first priority. Therefore, the Ai care is trying to combine with care & technology, to establish health building and home oriented program for daily health observation of elderly peoples. The addition of the new assistance will be conducted and will co-operate professionally to create an comfortable life for elder peoples.

Keywords: *Prospective*、*Ai care*、*health park*

A083

農業區之醫療機構病媒防治方式成效評估

蘇敬皓^{a,b} 郭光明^b 劉佳明^c 吳啟亨^c 金秉勳^c 高俊揚^c

^a義大醫療財團法人義大癌治療醫院

^b義守大學醫務管理學系碩士在職專班

^c義大醫療財團法人義大醫院

^aryan8272069@gmail.com

摘要

目的：

個案醫院位處農業區中心，院區本身與頂樓招牌的大型燈光容易吸引蚊蟲，院內經常受到蚊子、蒼蠅及隱翅蟲等不同的病媒害蟲騷擾，故執行多種防治方式，期望透過本研究針對防治方式成效進行分析，以利個案醫院確認防治方式是否符合效益。

方法：

1. 自製生物性誘引黏劑，放置於院區出入口作為天然捕捉工具，每個出入口放置 6 盆，共 36 盆。
2. 架設魚菜共生系統培育薄荷，並分株放置於院區出入口等較容易受到蚊蠅騷擾的位置，每月發放 50 株，持續一年，共計 600 株。
3. 每月固定對員工進行一場環境衛生教育訓練，提供病媒蚊防治的相關辦法及觀念，持續一年，共計 12 場。

結果：

2019 年開始執行改善方案後，針對捕捉數量進行統計分析，結果顯示，捕捉數量從 2018 年每月平均 212.083 隻下降至 185.917 隻，具有顯著差異($P=0.010$)，顯示整體防治成效良好。另外個別以薄荷發放量及教育訓練場次與捕捉量進行相關分析，皆呈現負相關，但並無顯著差異($P=0.990$)。

結論：

本研究使用綜合推拉防治，減少病媒害蟲騷擾，改善醫院環境品質，此研究結果可提供位處農業區的醫療機構作為病媒防治的參考，減少病媒害蟲騷擾，降低傳播疾病的機會，為民眾及員工的健康把關。

關鍵詞：綜合推拉防治、薄荷、自製生物性誘引黏劑、病媒蚊

建構基層診所知識地圖之行動研究

謝億霖、黃駿翔、廖婉婷、林思馥、張碩芳*

嘉南藥理大學 醫務管理系

*通訊作者 shofangchang@gmail.com

摘要

彼得·杜拉克早在一九六五年即預言：「知識將取代土地、勞動、資本與機器設備，成為最重要的生產因素。」知識是一家企業的寶貴資產，因此知識傳承極為重要。尤其基層診所屬於員工高流動率的組織，若無法有效進行知識管理，醫療品質與經營管理易相對不穩定。本研究針對台南地區某診所進行知識管理的導入，試圖以行動研究法，建構診所的知識地圖，以利品質管理與知識傳承。本研究運用觀察法及深度訪談法進行資料蒐集，為期半年時間，分別針對醫師、護理師、藥師、行政管理等七位員工，進行田野觀察與深度訪談。運用實地觀察來了解診所的日常運作，並撰寫田野日誌。依據田野日誌結果進行知識盤點，並針對漏失的觀察點與隱性知識透過深度訪談整理為完整知識地圖。研究結果共產出了六大流程圖表、三項知識盤點缺漏措施、五份工作說明書、三部示範教學影片，並整合出檔案總管型、心智地圖型知識地圖，亦將結果回饋給診所進行效度確認，並進行部分修改。本研究期望透過實際行動幫助基層診所踏出知識管理的第一步，藉由知識盤點與知識地圖使其相關知識妥善分類、連結，使知識得以有效傳承，供未來診所之新進人員快速瞭解工作內容及做法，減少培訓時間，降低品質不確地性與提升經營效能。

關鍵詞：知識管理、知識地圖、知識盤點、基層診所

Peter Durak has predicted in 1965: "Knowledge will replace land, labor, capital and machinery as the most important production factor." Knowledge is a valuable asset of an enterprise; therefore, the inheritance of knowledge is extremely important, especially in primary clinics which have high employee turnover. If knowledge management (KM) cannot be performed effectively, medical quality and management may be relatively unstable. This study tries to introduce KM to a clinic in Tainan by action research. It tries to construct a knowledge map of the clinic as a basis for better service quality and knowledge transfer. Observation method and in-depth interview toward physicians, nurses, pharmacists and administrators were adopted to collect data for half an year. Field notes converted to transcripts were organized after the observations of the daily operation of the clinic. Knowledge auditing was conducted based on the manuscripts above, and in-depth interviews were conducted for completing the missing points and externalizing implicit knowledge. The research results produced a total of six flow charts, three missing measures for knowledge auditing, five job instructions, three demonstration teaching videos, and two types of knowledge maps. The results were also fed back to the clinic staff for validation and revisions. This study hopes to help primary clinics take the first step of KM. Through knowledge auditing and building the knowledge maps, the related knowledge is properly classified and connected, so that the knowledge can be effectively passed on, and the junior staff can quickly understand the work content and practices. It reduces training time and the inconsistency of quality and ultimately improves operation efficiency.

Keywords: knowledge management(KM), knowledge map, knowledge auditing, primary clinic

A085

護理人員復原力與慈心滿足、慈心疲倦之相關研究-以組織氣候為調節變項

蔡欣妤^a 陳芬如^b

^a義守大學醫務管理學系碩士班

^a119970427@gmail.com

摘要

本研究背景以護理人員復原力為主要議題，目的為探討不同人口學背景與護理人員復原力之差異與相關性、護理人員復原力與慈心滿足、慈心疲倦的關係、組織氣候在復原力與慈心滿足、慈心疲倦中的調節效果。採用初級資料分析，研究對象為醫療機構工作滿三個月以上的護理人員，調查護理人員之基本資料、復原力、慈心滿足、慈心疲倦和組織氣候之量表調查，統計方法為使用 PASW22.0 進行描述性統計分析、獨立樣本 t 檢定(t test)、單因子變異數分析(one-way ANOVA)、皮爾森相關分析(Pearson Correlation Coefficient)、多元線性迴歸(Multiple Linear Regression)。調查對象共有 508 位，年齡平均數為 29.76(±6.9)，性別以女性偏多(女=91.7%，男=8.3%)，(一)、基本人口學背景與護理人員復原力之差異與相關性，呈現部分差異與相關；(二)復原力與慈心滿足呈現正顯著相關($P<0.01$)，復原力與慈心疲倦呈現負顯著相關($P<0.01$)；(三)組織氣候在復原力與慈心滿足、慈心疲倦中未達調節效果；透過本研究了解對於護理人員的復原力提升還需要多加強，才能讓護理人員因為復原力的存在，更能顯著提升慈心滿足及降低慈心疲倦，以及突顯組織氣候的調節效果；建議醫院可以辦些教育訓練或是活動，以拉近員工之間的距離，有良好的工作環境，也讓組織的氣氛可以更好。

關鍵字:護理人員、復原力、慈心滿足、慈心疲倦、組織氣候

A086

急診護理人員對兒童虐待通報的知識、態度及行為-以南部某醫學中心為例

To Explore the Knowledge, Attitude and Behaviors of Emergency Nurses concerning Reporting Child Abuse -A Case of A Southern Medical Center

林育瑩^{ab}、楊雯婷^{ab}、張碩芳^c

^a 嘉南藥理大學醫務管理系暨碩士班 研究生

^b 國立成功大學附設醫院急診部 護理師

^c 嘉南藥理大學醫務管理系暨碩士班 副教授

^c shofangchang@gmail.com

摘要

目的:兒童虐待近年來事件頻傳且造成孩童身體傷痛、心理受損甚至有致死情形,身為急診第一線護理人員,有必要瞭解兒童虐待相關知識及敏感度以增加早期發現兒虐,避免孩童繼續遭受虐待。本研究主要探討急診護理人員對兒童虐待通報的認知態度。研究目的:一、瞭解急診護理人員對兒童虐待的知識、態度、行為之現況;二、瞭解急診護理人員人口變項對兒虐通報行為之差異,以及其知識、態度、對於通報行為之影響。本研究以南部某醫學中心急診室為研究單位,以編制內在職領有護理師執照護理人員為對象,調查時間自 109 年 2 月 6 日起至 109 年 3 月 2 日採立意取樣方法進行問卷調查,共發出問卷 129 份,實際回收 129 份,回收率 100%。研究工具為採用成大護理系馮瑞鶯教授發展的 CARIS 量表,探討急診護理人員對兒童虐待知識、態度、行為。資料處理以 IBM SPSS Statistics 25.0 統計軟體進行迴歸分析、描述性統計、卡方檢定與推論性統計分析資料與處理。結果:知識、態度、行為對兒童虐待通報的認知態度皆有顯著正向關係。統計分析發現年齡、工作年資、護理專業能力分級、是否進修、是否撫養子女及曾接受相關兒虐課程議題對於兒童虐待通報認知態度皆有顯著差異。結論:對於兒童虐待知識態度行為為相輔相成,能增加臨床不定時在職教育經驗分享,增強臨床護理人員新知,發揮早期發現及通報的功能。

關鍵詞: 急診、兒童虐待、通報

Abstract

Purpose: Child abuse has been frequent in recent years and has caused physical pain, psychological damage and even death in children. As an emergency nurse, it is necessary to understand the knowledge and sensitivity of child abuse to increase early detection of child abuse and avoid children continuously being abused. This study mainly explored the emergency nurses' cognitive attitudes towards child abuse reporting. The purpose of the study is to understand the current situation of emergency nurses' knowledge, attitude and behavior of child abuse; second, to understand the difference of sociological demographic variables on emergency nurses' reporting behaviors, and the impact of their knowledge and attitude on reporting behaviors. In this study, the emergency room of a medical center in the south Taiwan was used as the research unit, and the nursing staff with in-service licensed nurses were the research subjects. The survey time was from February 6, 109 to March 2, 109. The questionnaire survey was carried out by the purposively sampling method. A total of 129 questionnaires were sent, and 129 were actually recovered, with a recovery rate of 100%. The research tool used the CARIS scale developed by Professor Feng Ruiying of the Department of Nursing of Chengda University to discuss the knowledge, attitudes and reporting behaviors of child abuse by emergency nursing staff. For data processing, IBM SPSS Statistics 25.0 statistical software was used for regression analysis, descriptive statistics, chi-square test and inferential statistical analysis. Results: Knowledge and attitudes have a significant positive impact on the child abuse reporting. a Age, working experience, nursing level, advanced education, with children or not, and having received relevant child abuse curriculum issues have different behaviors of child abuse reporting. Conclusion: Knowledge, attitudes and behaviors complement each other, which can increase the on-the-job education and sharing of clinical experience in real time, update the knowledge of clinical nursing staff, and play the role of early detection and notification of child abuse reporting.

Keywords: emergency department, child abuse, reporting

A087

應用機器視覺技術於驗孕試片分析判斷之研究

Application of machine vision technology in pregnancy test strips Research on analysis and judgment

陳正和^a 李孟翰^b

^a 國立勤益科技大學機械工程系

^b 國立勤益科技大學機械工程系

^b E-MAIL:19800524steve@gmail.com

摘要

在過去醫療缺乏的年代裡，人們對妊娠知識是缺乏的，只能藉著孕婦本身害喜現象來確認自己是否已懷了新生命，隨著時代的演變與科技的進步，現代人類利用驗孕棒來檢視懷孕與否，而當驗孕棒出現兩條線時即是代表新生命藉此開始。機器視覺(Machine Vision) 檢測技術屬於非接觸性的檢測技術，以電腦搭配工業攝影機取代需要人工進行判斷的工作項目，透過程式軟體分析後，擬定最佳的標準化數據，避免因人為判讀差異，造成判讀結果不一致。隨著硬體設備製造技術的革新，該項技術應用範圍也愈加廣泛，在醫療業也越來越多使用機器視覺技術用來協助醫療人員輔助判斷，進而提升醫療人員的作業效率。本研究探討如何應用機器視覺技術進行驗孕試片之判斷，利用 CMOS 攝影機拍攝驗孕試片影像後，再藉由機器視覺開發軟體將影像二值化、形態學演算等影像處理技術判讀出試片的條紋與篩檢的反應結果。

關鍵詞：機器視覺、驗孕試片、自動光學檢測

Abstract

In the past, people lacked the scientific knowledge about pregnancy. They can only confirm whether a woman is pregnant or not by the physical phenomenon of the woman. With the evolution of the times and the advancement of science and technology, modern humans use pregnancy tests to see if a woman is pregnant or not, and when the pregnancy test piece appears 2 lines, there is a new life to start. Machine Vision inspection technology is a non-contact detection technology. It replaces the work that require human judgment by a computer with industrial cameras. After analyzing the object through a software, it formulates the results to avoid human error and inconsistent interpretation. With the innovation of hardware manufacturing technology, the application of this technology has become more and more extensive. In the medical industry, machine vision technology is increasingly used to assist medical personnel in assisting judgment, thereby improving the efficiency of medical personnel. This study explores how to use machine vision technology to judge the pregnancy test piece. A CMOS camera is used to take the image of the pregnancy test piece, the image is transmitted to the computer and then processed and analyzed by a developed machine vision inspection software. Image processing techniques including image binarization and morphological operation are applied. The software determines whether or not stripes appeared on the test specimen and the corresponding result is shown on the computer screen..

Keywords: Machine vision, Pregnancy test, Automatic optical inspection

A088

民眾對於行動應用程式使用意圖之研究-以南部某區域教學醫院為例

A Case Study of Individuals' Intentions toward Using Mobile Application of a District Teaching Hospital in Southern Taiwan

林雍芫^a 郭光明^b

^a 義守大學醫務管理系碩士班
Department of Healthcare Administration
I-Shou University

^b 義守大學醫務管理系
Department of Healthcare Administration
I-Shou University

^a cb93022000@gmail.com ^b kmkuo@isu.edu.tw

摘要

自 1995 年全民健保險實施以來，各級醫院門診看診壓力持續上升，在智慧型行動電話及行動網路的普及科技的日新月異更加多元化之下，目前各級醫療院所皆提供行動應用程式來改善前來就診病患之就醫服務，本研究主要目的為藉由運用 Davis (1989)科技接受模式理論探討病患使用行動應用程式行為意圖相關影響因素。

本研究採取問卷調查法，以前往南部某區域醫院就診民眾，作為問卷發放對象，於 109.04.01~109.05.04 共發放 219 份問卷，其中回收有效問卷 194 份，以電腦統計套裝軟體 Windows for SPSS 第 18 中文版作為統計分析工具，針對問卷進行編碼及統計，並使用描述性統計分析、探索性因素分析、信度分析、獨立 T 檢定與單因子變異數分析及迴歸分析等方法分析資料。經過此次研究可發現，民眾對於行動應用程式的認知易用性對於認知有用性(路徑係數 Beta 值為 0.637，p 值<0.05)有正向影響，認知有用性對於使用態度(路徑係數 Beta 值為 0.119，p 值<0.05)有正向影響、認知易用性對於使用態度(路徑係數 Beta 值為 0.72，p 值<0.05)有正向影響、認知有用性對於行動意圖(路徑係數 Beta 值為 0.693，p 值<0.05)、使用態度對於行動意圖(路徑係數 Beta 值為 0.693，p 值<0.5)有正向影響。

本研究的發現對正在劃導入行動應用程式之相關醫療機構，應可具參考價值，並可建置更符合民眾需求之相關應用程式，提高民眾使用行動應用程式之意願進而提高就醫之服務品質。

關鍵詞：科技接受模式、行動應用程式、使用態度、行為意圖

A089

術後頸部椎間盤突出病人醫療品質之研究

A Study of Patients with Postoperative Cervical Disc Herniation on Medical Quality

林佩怡^a 馬震中^b

^a義守大學醫務管理系碩士在職專班

^b義守大學醫務管理系

^bup000238@go.isu.edu.tw

摘要

目的：本研究目的為探討術後頸部椎間盤突出病人其人口學、手術相關治療對術後 X 光檢查異常及再住院之醫療品質影響。

方法：本研究採回溯性研究設計，以病歷回顧法收集資料，於南部某醫學中心病人住院資料。收案期間為 2017 年 1 月 1 日至 2018 年 12 月 31 日接受手術後持續追蹤半年，列入研究個案總共有 248 人，統計方法以敘述性統計，卡方檢定及二元羅吉斯迴歸分析方式找出影響醫療品質之相關因素。

結果：性別方面為女性 129 人(佔 52%)佔多數；在年齡方面:以 51-70 歲 143 人(佔 57.7%)佔多數；在身體質量指數方面：以 $\geq 18.5 \sim < 24 \text{ kg/m}^2$ 98 人(佔 39.5%)佔多數；在糖尿病方面：無糖尿病 170 人(佔 68.5%)較多；在高血壓方面：無高血壓 141 人(佔 56.9%)較多，經由二元羅吉斯迴歸統計發現:術後 X 光檢查異常:在身體質量指數異常($p=0.0189$)、糖尿病病人:($p=0.0166$)、住院天數:($p=0.0005$)，再住院:在身體質量指數異常($p=0.0187$)、糖尿病病人:($p=0.0137$)、住院天數:($p=0.0004$)具有統計上顯著差異。

結論與建議：由研究結果得知，身體質量指數異常、罹患糖尿病、及住院天數分別會對術後頸部椎間盤突出病人醫療品質有影響。建議政府機關可加強糖尿病防治，宣導國人對體重過重所造成危害，維持正確姿勢避免椎間盤突出，因此研究結果可提供醫院管理者及醫療人員參考。

關鍵詞：頸部椎間盤突出、醫療品質

A090

血液透析患者家屬對預立醫療照護諮商與病人自主權利法之知識

The Knowledge of Self-Determination Act and Advance Care Planning among the Families of Hemodialysis Patients

廖喬雍^{ab} 葉德豐^a 張育嘉^c 陳呈旭^d 張美幸^c 黃麗玲^{a*}

^a 中臺科技大學醫療暨健康產業管理系

^b 佛教慈濟醫療財團法人台中慈濟醫院申報組

^c 亞洲大學健康產業管理學系

^d 臺中榮民總醫院內科部腎臟科

^e 臺中榮民總醫院緩和療護病房

* 黃麗玲 llhuang@ctust.edu.tw

摘要

在台灣，醫療最主要的決策者往往是家屬而非病人本身，若要讓病人享有醫療的自主權，家屬對病人自主權利法與預立醫療照護諮商的認識將成為關鍵。本研究旨在探討血液透析患者家屬對病人自主權利法、預立醫療照護諮商(ACP)以及預立醫療決定(AD)的知識及其相關影響因素。

本研究以中部某醫學中心定期接受 98 位血液透析患者家屬為對象進行問卷調查，問卷包括人口學變項、ACP 相關經驗，病人自主權利法以及與 ACP 與 AD 知識等。統計分析包含描述性統計、t-test 與 one-way ANOVA。

在 10 題的知識題中平均得分僅 4.08，其中病人自主權利法知識（7 題）平均 .95(42.14%)、ACP 與 AD 知識平均 1.13(37.67%)，其中聽過 ACP、AD 以及知道台灣已實施病人自主權利法之家屬均只占三成。大專學歷、從事醫療相關工作、已簽署過 DNR、曾經與腎友家人討論過病情惡化至危及生命時醫療抉擇的家屬，其整體知識、病人自主權利法及 ACP 與 AD 的知識均顯著較高。未與腎友家人同住之家屬在 ACP 與 AD 顯著較高。

不論是病人自主權利法、ACP 或 AD，對於血液透析患者家屬而言都是陌生的，僅有少數高學歷、從事相關工作與有相關經驗者較為認識，這表示病人自主權利法雖然經過三年準備才實施，民眾對其的認識依然十分不足。若要達到病人善終的目標，政府、醫療院所都需要再提供患者與家屬更完整的教育資訊與宣導。

關鍵詞：病人自主權利法、預立醫療照護諮商、預立醫療決定、血液透析、家屬

A091

機器學習上的攻擊之研析

Attack on Machine Learning: A Survey

彭彥筑^a 劉奕賢^b 劉川綱^c 李竹芬^d 李忠憲^e
^{abc} 國立成功大學 電機工程學系/電腦與通信工程研究所
^c 嘉南藥理大學 資訊多媒體應用系
^d 國立虎尾科技大學 財務金融系
^e jsli@mail.ncku.edu.tw

摘要

在近幾年內，隨著機器學習快速進步，許多領域都使用機器學習來幫助解決各種問題，包涵異常偵測、分類、分群與預測等等，機器學習在這之中取得了非常好的成果。但在機器學習光鮮亮麗的背後，隱含著被攻擊者惡意操作與控制的風險。在機器學習上，資料集是成就良好表現的重要原因之一，使用者在收集資料上卻往往無法保證其是安全無虞的，使用者可能從來路不明的網站來原下載資料或者是有意惡意使用者會在群眾來源的系統上傳惡意資料，導致資料及被惡意的感染，所謂的對抗例子、感染攻擊與後門攻擊便是透過這樣的途徑達成攻擊。在這樣的攻擊下會造成系統的危害，嚴重的會使整個系統癱瘓，以異常偵測為例，他會偵測異常為正常，正常為異常，造成判斷失靈。本文將重點介紹各種在機器學習上的攻擊，並進一步討論其中的差異，讓研究者對機器學習上的攻擊有一定的了解。

關鍵詞：機器學習，深度學習，對抗例子，感染攻擊，後門攻擊。

Abstract

In recent years, machine learning has made progress in a lot of fields. It solves various problems, among anomaly detection, classification, clustering and forecasting, resulting in excellent performance. Despite the outperformance of machine learning, it may face the risk of attack and manipulation from the attacker. Dataset, which is most important role that made machine learning performing great, is sometimes, however not guaranteed to be safe. Users would download dataset directly from some questionable source, or that some malicious user would upload some poisoned data to the crowdsourcing systems, making dataset unreliable. This problem may cause a variety of attacks in machine learning, which called adversarial example, poisoning attack and backdoor attack. These attacks may compromise machine learning system. For example, in anomaly detection, it would make benign to be anomaly and anomaly to be benign, making detection failed. In this research, we would introduce various machine learning attack, and discuss the difference between them, giving a basic understanding of attack on machine learning.

Keywords: Machine Learning, Deep Learning, Adversarial Example, Poisoning Attack, Backdoor Attack.

A092

探討 Deepfake 影片生成方法

Analysis of Deepfake Video Creation

吳柏毅^a 劉奕賢^b 劉川綱^c 李竹芬^d 李忠憲^e

^{abc} 國立成功大學 電機工程學系/電腦與通信工程研究所

^c 嘉南藥理大學 資訊多媒體應用系

^d 國立虎尾科技大學 財務金融系

^e jsli@mail.ncku.edu.tw

摘要

近年來，各類網站上開始出現將多國名人進行換臉的影片，其中有多名女星的臉被合成到色情片上在當時更是引起軒然大波，此舉不僅造成形象受損，也擔心同受其害的名人越來越多。隔年此技術持續被廣泛應用，開始大量製造這些被稱為「Deepfake」的偽造影片，其潛在危害甚至可能造成全球性的災害，使得人們必須要正視這個藉由 AI 技術產生的作品，其背後所涉及的道德問題、隱私權問題，甚至是國安的議題。本論文便是以此為契機，首先探討目前主流的製作 Deepfake 影片方法，及其相關演算法的應用，再整理並比對常見換臉軟體所使用之資料集及其資料的真偽比，這些資料集能夠反映目前網路上廣泛傳播的合成影片之真實情況，其中包含大規模具有高度視覺質量的 Deepfake 影片，用於協助開發和評估 Deepfake 檢測算法。

關鍵詞：深度偽造，機器學習，深度學習，自動編碼器，生成對抗網路。

Keywords: Deepfake, Machine Learning, Deep Learning, Autoencoders, Generative adversarial network.

A093

Satisfaction with Mobility Assistive Technology of a PPS User for a Healthy Life: A Case Report

Pin-Chun Chao^a, Jer-Hao Chang^b, Tsung-Yi Lin^c, Su-Fen You^d

^a Department of Senior Services, Southern Taiwan University of Science and Technology, Taiwan

^b Department of Occupational Therapy, College of Medicine, National Cheng Kung University, Taiwan

^c Department of Mechanical Engineering, Southern Taiwan University of Science and Technology, Taiwan

^d Department of Medical Sociology and Social Work, Kaohsiung Medical University, Taiwan

^a tinachao@stust.edu.tw

There are 70,000-120,000 polio patients in Taiwan, and about half of them are likely to develop post-polio syndrome (PPS), which tends to appear 30-40 years after the initial polio illness. Their medical care, psychological and physiological conditions could even become significant challenges for the families and society. The design and application of their assistive devices, such as wheelchairs, also need attention to exam the feasibility again. The subject in this study was a 61 year-old male with PPS who got infected with polio at age of one year old and lately had 30 years' experience of the wheelchair using. He relied on wheel chair till now and suffered the symptoms of PPS including swallowing problems, progressive muscle atrophy, joint weakness, general fatigue and exhaustion with minimal activity, gastrointestinal and urinary disorders, as well as sleeping disturbance. The purpose of this study was to investigate the subject's user satisfaction with currently possessed wheelchairs and why he urgently demanded a more suitable one to improve his life quality. A manual wheelchair (MW), a manual reclining wheelchair (RW), and an electric standing wheelchair (SW) were evaluated by the Quebec user evaluation of Satisfaction with Assistive Technology (QUEST2.0) (Taiwanese version). The qualitative data were also collected by semi-structured in-depth interviews. The overall mean-values and SD for MW, RW, and EW were 2.17 ± 0.241 , 2.42 ± 0.149 , and 3.75 ± 0.179 , respectively. The three items that were ranked to be of the most important of a wheelchair were 'Safety,' 'Durability,' and 'Dimensions.' However, the top two scorers of the items were 'Weight' (3.33 ± 0.333) and 'Effectiveness' (3.33 ± 0.333). These data indicated that 'Safety,' 'Durability,' and 'Dimensions' aspect of the wheelchairs did not meet the subject's expectation. Due to impaired muscle control ability, the subject could only switch the brakes from a certain angle to increase the chance of breaking. The brake switch thus should be made of durable materials. Because of gastrointestinal and urinary disorders, the subject required RW for lower limb exercise every day to assist bowel and urinary emptying. Due to the current design of manual RW, the subject depended on someone for wheelchair reclination. A single-person operation shall be considered in the future RW design. Because of muscle atrophy and scoliosis, the subject could only stand if the SW allows for hyperextension of the hip This study showed a consistency between quantitative and qualitative data, and it not only presented the real voice of a PPS patient's need but also provided constructive suggestions for future wheelchair designs for his expectation of life quality.

Keywords: Post-Polio Syndrome, Wheelchair Satisfaction , Mobility Assistive Technology.

A094

以創新擴散模式探討個體使用智能開關之影響因素

Explore the Determinants of Individual Smart Switch Use Base on Innovative Diffusion Model

賴正育^a 黃于哲^b

^a 中原大學企業管理學系

^b 中原大學巨量資料商業應用碩士學位學程

^acylai@cycu.edu.tw

摘要

隨著科技的改變，社會大眾逐漸注重生活品質提升，因此近年來「智慧生活、智能居家」成為時下的新議題。舉例來說，智能開關是一款可直接安裝至現有燈具開關上，可以在行動不便或無法起身時，以遠距遙控開關，是一個非常適合運用在居家甚至老人照護的產品，因此近來也越來越受到重視。然而，目前文獻中對於個體使用智能產品的影響因素並沒有太多的探討。因此，本研究以智能開關為標的試著從動機需求的觀點去瞭解個體對智能產品的使用意圖。基於創新擴散模式，本研究提出一整合研究模型去探討消費者對於智能開關使用的態度與意圖，並使用問卷調查針對所提出的模式進行實證。問卷發放係針對具有智能產品使用經驗的使用者，並且在作答前提供受訪者智能開關使用的情境影片進行瀏覽。本研究共計回收 300 份樣本，扣除無效問卷後，有效樣本為 254 份，使用偏最小平方法（Partial Least Squares, PLS）進行分析。研究結果顯示，相容性、客製化以及效益性對於個體使用智能開關的態度有正向且顯著的影響，並且會進而影響其使用意願。研究結果提供許多學術或實務上的見解，有助於進一步了解消費者在採用智能產品時的考量。

關鍵詞：智能開關、創新擴散模式、動機需求、使用意願

Abstract

With the development of IT, people are gradually focusing on improving their quality of life, accordingly intelligent living has become a trendy issue in recent years. For instance, Smart switch is a product that can be directly attached to the existing light switch to solve people who move with difficulty or limited to control the light remotely. In other words, it is a product that suitable for use at home or even for elderly care, and therefore getting considerable attentions recently. However, not much has been done in the current literature on the factors that influence the use of smart products. Consequently, this study uses smart switch as an example to understand individual's intention to use smart products from the perspective of motivational demand. Based on the innovative diffusion model, this study proposes an integrated model to explore consumers' attitudes and intentions towards the use of smart switch. An online survey was conducted to evaluate the proposed model and hypotheses. Individuals who have experiences in using smart products were invited to join the survey, and a contextual video of the use of smart switch was showed before answering. A total of 300 samples were collected in this study, and after deducting the invalid questionnaire, the valid sample was 254, which was analyzed using the partial least squares (PLS). Analytical results show that, compatibility, customization, as well as effectiveness have a positive and significant impact on individual's attitude toward smart switch use, and in turn affect their intention to use it. Based on the research results, both academic and practical implications are discussed.

Keywords: Innovative diffusion model, Intention, Motivation, Smart switch.

A095

整合 ISSM 模型及 ECT 模型探討護理人員學習數位化資訊系統使用程度之影響

洪健文^a 李冠諺^b 林楷濬^c

^a嘉南藥理大學資訊管理系

^b嘉南藥理大學醫務管理研究所

^c嘉南藥理大學資訊管理系

^acwhong@mail.cnu.edu.tw

摘要

隨著資訊科技的轉變發展與網際網路(Internet)的普及，使得人們的生活產生微妙的變化，人們依賴網際網路(Internet)的需求也更多元。進入知識經濟的時代，資訊知識的發展與科技應用嚴然成為個人未來與企業經濟發展致勝的關鍵因素。因此，醫療院所推行導入資訊系統幫助簡化行政作業流程擴大經濟效益，並透過網路學習系統來降低護理人員訓練成本與增加護理人員持續吸收專業知識的學習管道，進而提供病患良好的健康守護。

本研究以全國醫院的護理人員為研究對象，主要目的以資訊系統成功模式(Informational System Success Model, ISSM) 及期望確認之資訊系統持續使用模式 (Post-Acceptance Model of Information System Continuance) 整合探討，透過問卷收集法收集資料進行調查與分析，探究護理人員對於「E化學習系統(e-Learning system)」的使用效益，並針對使用者對E化學習系統的五構面進行探討是否影響使用成效及持續使用意願，另外增加不同護理人員的背景為調節影響變數，探究學習者對於「數位學習系統」意向差異及關連性。期望藉由研究讓醫院推行「數位學習系統」更加順利並增加護理人員持續性學習優勢。

關鍵字：數位學習(e-Learning)、資訊系統成功模式(ISSM)、期望確認理論(ECT)、資訊系統持續使用模式(Post-Acceptance Model of IS Continuance)

A096

3D 列印四連桿按壓裝置應用於零接觸酒精消毒

3D Printing four-bar-linked pressing device applied to zero-contact alcohol disinfection

陳秋蘭^a 賴昱霖^b 吳佩穎^b 林煜展^b 洪瑜佑^b 朱以真^b

^a 嘉南藥理大學藥學系

^b 國立北門高級中學

^abetelan@mail.cnu.edu.tw

摘要

新冠肺炎疫情期間，不僅口罩需求增加，更強調手部的消毒清潔；為因應疫情期間的「零接觸」應用趨勢並兼顧手部消毒之「便利性」，各式手部消毒之創意機器人相繼發表。本設計乃是透過 adurino 控制版撰寫程式來控制超音波感測器，感測到物體接近後，啟動按壓裝置，噴出酒精消毒。本按壓裝置為運用 3D 列印所改良之四連桿機構，用來模擬按壓噴瓶的動作。市面上酒精噴瓶按壓頭尺寸不一，形狀及形式各異，若依傳統製作方式要達到「量少」及「客製化」的需求恐所費不貲，透過 3D 列印技術，先以 Solid works 3D 軟體繪製建模、轉檔、多層堆疊列印方式等過程，製作密合性及強度均合所需的按壓裝置，維修及更換容易，不僅節省成本，與按壓頭密合度佳，亦可發揮機器之最佳效能；另外，受使用空間限制與需求，酒精容器之大小不一，噴瓶固定支架亦可透過 3D 列印技術，製作符合需求之固定支架，達到最適之空間配置。再者，本設計考慮到電力的消耗隨著使用的狀況難以掌握，故利用現有的太陽能板將電能儲存於電池中，晝間日照產生的電力除可供按壓所需外，亦可供夜間的燈光照明消毒，使本裝置在應用上更加全面廣泛。

關鍵詞：新冠肺炎、3D 列印、四連桿、按壓裝置、零接觸酒精消毒

Abstract

During the New Coronary Pneumonia epidemic, not only the demand for masks increased, but also emphasis on hand disinfection and cleaning; in response to the "zero contact" application trend during the outbreak and taking into account the "convenience" of hand disinfection, various types of hand disinfection creative robots have been published. This design is to write a program through the adurino control version to control the ultrasonic sensor. After sensing the object is approaching, the pressing device is activated and alcohol is sprayed for disinfection. The pressing device is a four-link mechanism improved by 3D printing, which is used to simulate the action of pressing the spray bottle. Alcohol spray bottle press heads in the market have different sizes and different shapes and forms. If the demand for "small quantity" and "customization" is achieved according to the traditional production method, it may be costly. Through 3D printing technology, Solid works 3D software drawing modeling, conversion, multi-layer stack printing and other processes, making the pressing device with the required adhesion and strength, easy maintenance and replacement, not only saves cost, but also has a good adhesion with the pressing head give full play to the best performance of the machine; in addition, due to space limitations and requirements, the size of the alcohol container varies, and the spray bottle fixing bracket can also be used to produce a fixed bracket that meets the needs through 3D printing technology to achieve the most suitable space configuration. In addition, this design considers that the power consumption is difficult to grasp with the use of the situation, so the existing solar panel is used to store the electric energy in the battery. The power generated by the daytime sunshine is not only available for pressing, but also for night lighting. Lighting disinfection makes the device more comprehensive and extensive in application.

Keywords: New coronary pneumonia, 3D printing, four-bar linkage, pressing device, zero-contact alcohol disinfection

A097

應用深層類神經網路於大腸鏡影像之息肉分類

蔡明誠^a 陳文儉^a 林仁勇^a 林國祥^b 顏聖烈^c

^a大葉大學, ^b國立勤益科技大學, ^c彰濱秀傳紀念醫院
bgslin@ncut.edu.tw

摘要

本文提出一種基於深度神經網路 (DNN) 之大腸息肉影像分類的方法。由於大腸息肉可視為一種物件，故本論文選擇深度學習網路 YOLO (You only look once) 來開發一套電腦輔助系統，用以偵測與分類息肉。基於 Data augmentation 與 Transfer Learning，本論文修改 YOLO，達成大腸息肉影像的分類。為了評估提出本系統的性能，我們收集了許多大腸內視鏡檢查影像進行測試。針對訓練集外之 234 張大腸息肉影像案例，系統之 Precision 和 Recall 可以達到 99%。實驗結果證明，本系統可以有效地偵測與分類大腸影像內的息肉。

關鍵詞： YOLO; Colorectal Polyps; Deep Neural Network

Abstract

In this paper, a colorectal polyp classification method based on deep neural network (DNN) was proposed for BLI (Blue Laser Imaging) images. Since polyps can be considered as objects, an one-stage object detection network, YOLO (You Only Look Once), is selected to develop a computer-aided system to detect and classify polyps. Based on data augmentation and transfer learning, the YOLO was modified to classify polyps into two classes: hyperplastic and adenomatous. To evaluate the performance of the proposed method, many colonoscopic images are collected for testing. The precision and recall rates can achieve 99% for 234 cases outside the training set. Experimental results show that the proposed method can not only detect but also classify colorectal Polyps in BLI images.

Keywords: YOLO; Colorectal Polyps; Deep Neural Network

A098

A Study on the Factors affecting Retirement Plans Of Taichung City Residents

陳敏郎^a 許世佩^b

^a弘光科技大學健康事業管理所

^b弘光科技大學健康事業管理所

^a sandy9810208@gmail.com

摘要

目的:隨著時代進步,科技及醫療技術日趨新穎,也為人類的生活型態產生莫大的改變,醫療技術的進步有助於人類壽命延長,雖然死亡率跟著下降了,但衍生的影響為「少子化」,社會型態的改變也影響新生兒的生育率,社會勞動力也因人口老化的速度而有所影響,青壯扶老負擔更為顯明,台灣已邁入高齡化社會,亦是不得忽視的新議題。方法:本研究為橫斷式研究。採便利式取樣及現場發放問卷調查及意見蒐集。共發放 580 份問卷,有效回收率為 92%。問卷資料進行量表信度與效度分析;次數分配、百分比、平均數等描述性統計分析;獨立樣本 t 檢定、單因子變異數分析、皮爾森相關分析及複回歸等推論性統計分析。結果:台中市民對於「社會參與」、「健康狀況」與「理財規劃」,分別會因為性別、年齡、職業、現在婚姻狀況、子女數、個人平均月收入等個人特質的不同而有顯著差異。受訪者在「社會參與」、「健康狀況」與「理財規劃」等構面的認知之間皆有顯著正相關。結論:受訪者在理財構面平均為 3 分,顯見對社會之政策理財規畫仍有些不足。由於台灣社會的退休規畫大多數人仍未重視,建議政府機關能正視市民理財規劃水平,並加強宣導,以免造成政府機關過多負擔,進一步保障市民退休後的生活。

關鍵詞: 退休規劃、社會參與、健康狀況、理財規劃、台中市地區

Abstract

Purpose: Technology and healthcare have progressed along with the advancement of civilization, bringing about unprecedented changes in the people's lifestyles. While advancements in medical technology have helped increase life expectancies and reduce mortality rates, changes in lifestyles have conversely led to sub-replacement fertility due to declining birth rates. The resultant aging population has an impact on the economic workforce, with an increasing burden placed on younger adults to support the elderly. As Taiwan's population is aging rapidly, this is an issue that must not be overlooked. Methodology: A cross-sectional study was carried out using random sampling and on-site questionnaires. Out of 580 questionnaires collected, 92% were deemed appropriate for use in this study. The reliability and validity of the scale were evaluated using the questionnaire data. Data analysis was carried out using descriptive statistics (frequency, distribution, mean) and inferential statistics (independent sample t-test, one-way analysis of variance, Pearson Correlation and regression analysis). Results: Taichung City residents have varying responses on social engagement, health conditions and financial planning, due to differences in gender, age, occupation, marital status, number of children gross monthly income per capita, personal characteristics, et cetera. A significant positive correlation between understandings of social engagement, health conditions and financial planning was noted among respondents. Conclusions: Respondents received a mean score of 3 for questions on financial aspects, indicating a lack of understanding of financial planning-related social policies. As a majority of the Taiwanese people still do not value retirement planning, it is suggested that the government should place more emphasis on advocating for, and raising the standards of financial planning amongst citizens. This will help to prevent an excessive burden on government agencies and ensure retirement security for citizens.

Keywords: retirement planning, social engagement, health condition, financial planning, Taichung City

A099

機構照顧服務員的失智症照護知識、態度與其專業生活品質之探討

Discussion on Dementia Care Knowledge, Attitude and Professional Quality of Life of Institutional Nurse Aide

何亭儀

義守大學醫務管理學系碩士在職專班

*judy30126@gmail.com

摘要

機構內住民失智症盛行率偏高，主要照顧人力的照顧服務員，在照顧失智症住民時除了住民生活照顧之外，也要針對伴隨而來的精神行為症狀進行應對，這些長期累積的會成為沉重負擔，因而促使研究者探討機構照顧服務員的失智症照護知識、態度與其專業生活品質。本研究採立意取樣方式發放問卷填答並回收問卷蒐集彙整，對象為屏東縣及高雄市之長照機構照顧服務員，共得 224 份有效問。研究結果在失智症照護知識(滿分 15 分)平均得分 10.33 分(SD=2.25)，顯示機構照顧服務員的失智症照護知識尚足夠。失智症照護態度平均為 3.71 分(SD=0.93)，顯示照顧服務員的失智症照護態度是中立偏正向；態度越正向者其失智症照護知識得分也越高。專業生活品質之「慈心滿足」、「慈心疲倦」與「專業耗竭」感均屬中等程度，對照顧服務員工作感到滿意，並願意繼續從事此項工作及沒有探聽其他非照顧員工作者慈心滿足感顯著較高，知識及態度與慈心滿意感呈正相關；知識及態度與專業耗竭感呈負相關；求學階段曾接受過失智症教育者在慈心疲倦感達顯著較低，態度與慈心疲倦呈負相關。建議在照顧服務員訓練課程標準加強對失智症照護課程的內容，也應把失智症照護列入照顧服務員在職教育課程主軸，期能提升照顧服務員的照顧工作勝任度，並仍讓照顧服務員獲得較高的滿足，對於工作挑戰、自我能力看法及工作中的社會關係有正向看法並願意繼續從事失智症照護工作，進而增進失智症之照顧品質。

關鍵詞：照顧服務員、失智症照護、知識與態度、專業生活品質

A100

剩餘藥品檢收調查之相關問題探討

許宮銓^a 曾文鼎^b 廖益樟^b 廖欽佑^b 王孝軒^b 王四切^b

^a長頸鹿藥局

^b嘉南藥理大學藥學系

tzchwa@mail.cnu.edu.tw

摘要

健保制度的發展使的臺灣的醫療可近性高，取得藥品方便，但廢棄藥品甚多。本研究想了解台灣地區民眾廢棄藥品之種類，並探索其與健保使用量之關係。

本研究針對民眾攜至社區藥局、醫院進行檢收藥品時或藥師進行居家藥事照護時發現有剩餘藥品者進行藥品的登載及數量紀錄，該紀錄前先徵得民眾同意後由藥師進行登載。藥品紀錄時以健保碼進行藥品類別紀錄，並登記該藥品回收量。分析時將健保碼轉換為 ATC CODE 進行類別判斷。

本研究回收問卷為 394 份，剔除資料填寫不全之無效問卷 14 份，有效問卷數量為 380 份。檢收藥品以糖尿病用藥(13.4%)及抗血栓藥(7.9%)為主；比對 107 年的中央健康保險署的藥品使用量(表二)，發現檢收藥品與健保常用藥品前 10 名大致相同，僅名次上有所不同。

本次的研究我們先比對了衛生福利部中央健康保險署的藥品使用量，發現使用量與本次調查結果類似，因此我們推測，醫生開藥量大剩餘藥品量也多，可能是病人不需要這麼多的量，或是這些藥品用藥配合度不佳，而這些藥品主要為三高用藥和腸胃道用藥居多。未來可建議對藥品剩餘的原因進行更進一步分析，並增加民眾服藥配合度，將可更進一步減少藥品的廢棄。

關鍵詞：剩餘藥品、服藥配合度、藥物檢收

A101

長照機構中藥事照護服務執行之探討

許宮銓^a 李柏宏^b 張家瑄^b 連珮瑜^b 王四切^b

^a長頸鹿藥局

^b嘉南藥理大學藥學系
tzchwa@mail.cnu.edu.tw

摘要

長期照護機構基於機構照顧之規模及成本考量，無法自設藥局及聘請專任藥師，因此可與社區藥局、醫療院所藥劑部門等簽訂合約，提供藥物使用管理與藥事照護。「長期照護機構藥事服務之標準作業流程」中規範合約之藥局藥師有責任確保護理人員調配藥品及給藥行為之正確性，並與負責醫師探討病人藥物治療之適當性與安全性。每位住民的藥物使用必須至少每三個月執行一次，由有效執業執照的藥師做藥物治療評估（Drug Regimen Review, DRR）。並定期提供護理人員藥學相關之在職教育及必要之藥學資訊，務使機構住民的藥事服務品質得到良好保障。

本研究以實地訪查某護理之家藥師相關業務的執行是否合宜，及可更加完善之處，訪查結果發現該處所僅未在管制藥品加鎖管理儲存外，皆符合該標準。而 DRR 方面建議藥師須以個案為導向，而非以藥物注意事項為導向。

因長期照護機構之特異性，給藥大多由護理人員進行，在硬體規範皆已符合後，藥師在進行 DRR 須更進一步以個案為考量，針對個案的生理特性給予相干的評估，而非僅提供用藥注意事項，以增進長者的福祉。

關鍵詞：長期照護機構、藥物治療評估、藥事照護

A102

居家藥事照護對多重用藥者潛在不適當用藥改變研究

趙婉君^a 許宮銓^b 王四切^c

^a烏日林新醫院藥劑科

^b長頸鹿藥局

^c嘉南藥理大學藥學系

tzchwa@mail.cnu.edu.tw

摘要

高齡長者因老化與器官退化而有藥品的吸收、分布、代謝、排除有其特異性。也導致對藥品的副作用更加敏感或加重，因而有了潛在不適當用藥(Potentially inappropriate medication, PIM)的發展，也因多重疾病狀態導致同時使用多種藥品遭遇多重用藥狀態。藥師進行居家藥事照護時檢視民眾用藥，發現可能的用藥相關問題並改善之。

本研究分析 106 年度藥師公會全國聯合會之藥事照護資料庫系統中居家藥事照護紀錄之藥品紀錄表單，該照護系統之收案條件為高診次個案。資料取得後排除 65 歲以下個案及未完成 6 次訪視的個案及首次訪視未遭遇 PIM。使用 Beers Criteria 2015 年版進行潛在不適當用藥評估，分析首次訪視與最後一次訪視之 PIM 遭遇。多重用藥狀態分為非多重用藥(同時使用 1-4 種藥物)、多重用藥(同時使用 5-9 種藥物)、極度多重用藥(同時使用 9 種以上)。

資料庫搜載 104,120 人次之訪視紀錄，納入收案條件者 48,239 人，是否遭遇 PIM 與多重用藥狀態兩者在人數分配不相似，遭遇 PIM 者用藥傾向於嚴重多重用藥($p < 0.001$)，以多元羅吉斯回歸分析檢視 PIM 遭遇改善與多重用藥間的關係發現，相比於嚴重多重用藥族群，最後一次訪視非多重用藥者有 21.65 倍的改善。

多重用藥與 PIM 息息相關，當藥師進行藥事照護時，若可協助統整用藥，減少同時服用的藥品數將可協助預防因藥品導致的不適。

關鍵詞：潛在不適當用藥、多重用藥、藥事照護、資料庫分析

A103

民眾廢棄藥物處理方式意向調查研究

趙婉君^a 許宮銓^b 王四切^c

^a烏日林新醫院藥劑科

^b長頸鹿藥局

^c嘉南藥理大學藥學系

tzchwa@mail.cnu.edu.tw

摘要

未使用的藥物若不經正確的檢收方式，可能會危害環境社會，甚至進入食物鏈中危害生物並影響人體。本研究想了解民眾對於廢棄藥物的處理方式，並探索與性別、年齡層等之相關性。

本研究以自編問卷進行線上調查。調查內容包含民眾教育程度、年齡層、性別及過往對廢棄藥物的處理途徑。使用多元線性回歸檢視不同年齡層、教育程度、性別對廢棄藥物的五種處理方式—直接丟垃圾桶、丟馬桶或水槽、拿至醫院/診所、拿至社區藥局、送親朋好友等的意向。

共 402 人次之問卷紀錄，女性 217 人，年齡層以 31-40 歲者 103 人最多(25.62%)，教育程度以大學/專者 199 人最多(49.50%)。在廢棄藥物處理方式意向上，直接丟垃圾桶、丟水槽或馬桶、拿至醫院/診所三者與基本資料無差異；拿至社區藥局者以高中職、研究所者較多、送給親朋好友者以高中職、研究所以及 70-80 歲與 81 歲以上者較多。

不正當廢棄藥物造成環境影響甚鉅，本研究發現丟水槽或馬桶者不論年齡層皆無差異，但贈送親朋好友者在高齡長者較多，疾病的診斷與藥物的使用需專業訓練及判斷，若錯誤使用藥物可能導致病情延誤。

關鍵詞：藥物檢收、環境衛生、廢棄藥物、問卷

A104

口罩實名制中藥師對口罩地圖認同調查

許宮銓^a 王四切^b

^a長頸鹿藥局

^b嘉南藥理大學藥學系
tzchwa@mail.cnu.edu.tw

摘要

新冠狀肺炎病毒於中國湖北省武漢市爆發，隨後迅速傳播至世界多國，無論是醫療、教育、經濟等層面，都對全世界造成嚴重的影響。臺灣為了預防病毒的飛沫傳染，緊急徵收醫療用口罩並藉由健保署網路服務與健保社區藥局一同展開口罩實名制發放制度，網路上也立即發展口罩地圖，藉由地理資訊系統與健保署資料欲讓民眾減少撲空的機會，本研究欲了解該制度在藥局端的影響與藥師的意向。

本研究以自編問卷進行線上調查。調查內容包含：藥局是否屬於偏遠地區、對調劑藥品及藥局販售品的銷售影響、口罩地圖對藥局發放口罩造成困擾、是否認同由藥局協助進行口罩實名制的發放等。

共 1119 位藥師協助填答，其中社區藥局位於偏遠地區者僅 81 位。其中認為口罩地圖對於發放造成困擾，非常同意 334 人(29.85%)；同意 332 人(29.67%)。認同由藥局執行實名制任務者 856 人(76.50%)。

資訊系統的發達，當政府提供公開資料後人人皆可對資料進行進一步的使用，但在政府及大眾的美意卻沒注意到發放端的多樣性及實際運作模式可能導致的困擾，經過互相磨合與系統的改進後將減少對其的抱怨。

關鍵詞：公共衛生、口罩、口罩實名制、地理資訊系統

A105

兒童脫水入院患者體溫與新興唾液生化指標之關聯性

盧彥蓓^a 蔡欣蓓^b 楊仁宗^b 林致廷^c 李一能^b

^a財團法人國家實驗研究院台灣儀器科技研究中心

^b長庚醫療財團法人嘉義長庚紀念醫院腦神經外科

^c國立臺灣大學電機工程學系

^aypl@narlabs.org.tw

摘要

水是身體組成重量最多的部分，因此身體總水量越高的狀態下發生體液大量變化時，對身體影響越大。由過去文獻中得知，人類中五歲以下兒童體內總水量達 65~80%，成年人則為 50~60%，由此可知幼兒對水的需求遠高於成人。脫水是全世界幼兒發病與死亡的主要原因之一，但要及時發現不善表達的嬰幼兒脫水現象並予以水分補充不是容易的事，然而現今常用來診斷脫水的生化值尚停留在血液滲透壓、血液鈉鉀離子及尿液比重等檢驗方法，臨床上幼兒患者除了採集檢體困難重重且配合度不高之外，也無法立即取得檢測結果。另外，當兒童於生病發燒時，脫水是最常見的臨床症狀，孩童體溫每超過攝氏 1°C 即需補充 10% 的水份。本研究為嘉義長庚醫院、臺灣大學和國家實驗研究院儀科中心研究團隊共同開發之可攜式水份檢測儀進行唾液樣本中導電度的測定，僅需一分鐘以內時間，能及時量測患者導電度數值。臨床經由醫師評估有疑似脫水現象住院的兒童(n=12)進行收案，並記錄體溫及收集唾液進行檢測。研究結果發現，當孩童體溫升高或發燒(>37.5°C)時，導電度數值隨之上升；當孩童經治療後，體溫皆恢復正常範圍，而導電度亦有下降的趨勢。體溫與導電度變化有正相關性的趨勢，可提供未來一個新的快速檢測脫水的方法，以利在最短的時間給予補充，降低脫水對兒童的傷害。

關鍵詞：兒童、脫水、發燒、唾液、導電度

A106

基於智慧型行動裝置開發監測血液生化指標之感測試片

盧彥蓓^a 黃清俊^{b,c} 黃琮道^a 張佳瑋^a 翁睿謙^a 蔡欣蓓^d 丁有玲^b 陳怡仁^b

^a 財團法人國家實驗研究院台灣儀器科技研究中心

^b 智準生醫科技股份有限公司

^c 國立交通大學生物資訊及系統生物研究所

^d 長庚醫療財團法人嘉義長庚紀念醫院腦神經外科

^a ypl@narlabs.org.tw

摘要

三酸甘油酯由一分子的甘油和三分子的脂肪酸組成，於生物代謝裡作為飲食攝取的脂肪在血液裡運輸、能量供給扮演重要的角色，也是植物油、動物脂肪、低密度脂蛋白、極低密度脂蛋白的主要成分，因此亦屬於監測健康的重要血液生化值之一。於血清檢測中，女性的正常範圍為 35-135 mg/dL，而男性為 40-160 mg/dL。當血液三酸甘油酯濃度超出代謝所需則會轉化成為脂肪儲存於體內，並可能導致肥胖，也使得心血管疾病、動脈粥樣硬化、腦中風、第二型糖尿病罹患率升高。若血清中平均值超過 500 mg/dL 更是成為誘發急性胰臟炎的高危險因子之一。現今，世界各國政府以及保險企業都投入大量醫療資源，希望能預防代謝症候群和降低其併發症的發生。近年來，智慧行動裝置已經廣泛於國際間流通使用，因此體外醫療診斷市場亦期望如何與智慧化設備結合於家用監控系統中，以達到能隨時監測血液三酸甘油酯的功能。於本研究中，研發團隊提出了一種快速、可靠且經濟的檢測方法來測量血液中游離的三酸甘油酯數值。透過比色試紙與行動裝置的結合，將有高分子聚合物和酵素聯結的混合物塗於試紙上，具有能與三酸甘油酯反應達到最佳化且均勻的結果。檢測步驟僅需要將樣本置於試紙上即可進行分析，可偵測的濃度範圍為 0-750 mg/dL，並透過智慧行動裝置上的光學系統就能隨時監測生化值。這項開發的優勢在於不需要增加額外的儀器設備，就可以容易透過智慧型通訊軟體上傳和進行數據管理。

關鍵詞：三酸甘油酯、心血管疾病、酵素、智慧型行動裝置

A107

樂觀性、睡眠品質及生活滿意度—以社區成人為例

Optimism, Sleep Quality and Life Satisfaction-A Study of Community Adults

陳貞臻 隋安莉*

嘉南藥理大學 醫務管理系(所)

*anlisui@mail.cnu.edu.com

摘要

背景：現今社會工作緊張忙碌，生活步調快速，往往導致過高的壓力。國外研究顯示較樂觀的人可以更有效的抵抗壓力，較不易失眠，心血管系統亦較健康。國內有關影響睡眠品質的研究多是針對壓力的探討，對於樂觀性的效應著墨甚少，因此本研究自成人之樂觀性為出發點，分析對個人的睡眠品質及生活滿意度是否有顯著影響。

目的：調查成人之樂觀性、睡眠品質和生活滿意度現況，並探討三者間之關係。

方法：以台灣中部社區成人為對象，採結構式問卷、便利取樣方式進行橫斷性研究。內容含樂觀性量表 (Life Orientation Test-Revised, LOT-R)、匹茲堡睡眠品質量表 (The Pittsburgh Sleep Quality Index, PSQI) 與生活滿意度量表 (Satisfaction with Life Scale, SWLS)。使用 SPSS 套裝軟體進行資料整理與建檔，並以描述性統計、卡方檢定、t 檢定、變異數分析、無母數檢定與逐步迴歸等推論性統計進行資料分析。

結果：有效樣本共計 189 名，平均年齡為 42 歲，46% 為男性。對現今生活滿意者有 54.4%，不滿意者為 45.6%，男女無差異。睡眠品質不佳者佔 45.5%，睡眠七因素中最差的前二名為睡眠困擾與睡眠品質滿意度；有效睡眠時間與不易入睡同樣位居第三。教育程度較高者睡眠品質較好 ($P < 0.001$)，男女則無差異。樂觀性不因性別、教育程度與運動頻率而有差異，但是自覺較健康 ($P < 0.001$)、有宗教信仰 ($P < 0.01$) 的人較樂觀。樂觀的人不僅較易入睡、睡眠困擾較低、睡眠的滿意度較高，且生活滿意度亦較高。逐步迴歸顯示，樂觀性 ($\beta = 0.397$) 與睡眠品質 ($\beta = -0.179$) 可顯著預測生活滿意度 ($\text{Adj.}R^2 = 0.217$)。

結論：成人睡眠品質不佳者佔四成五，生活滿意度的預測因子為樂觀性與睡眠品質，較樂觀的人不僅睡眠品質較好，生活滿意度亦較高。

關鍵詞：生活滿意度、樂觀性、睡眠品質

Abstract

Background: We are living in a tense, busy and fast-paced life, which leads to excessive pressure. Recent studies had shown that optimistic people could resist stress more effectively, showed less sleepless, and had better cardiovascular health condition. Most studies of sleep quality were focusing on stress, little about the effect of optimism. Thus, we started with adults' optimism, and analyzed if it affected their sleep quality and life satisfaction.

Purpose: Investigate optimism, sleep quality and life satisfaction of adults, and explore their relationship.

Method: This cross-sectional study recruited a total of 189 valid samples from community adults in central Taiwan by convenient questionnaire survey. The questionnaires included Life Orientation Test-Revised (LOT-R)、The Pittsburgh Sleep Quality Index (PSQI) and Satisfaction with Life Scale (SWLS). Cronbach's α of all questionnaire domains were > 0.7 . Data was analyzed by SPSS and statistical methods included descriptive statistics, chi-square test, t test, ANOVA, non-parametric analysis and stepwise regression.

Result: The average age of subjects was 42 years, and 46% were male. 54.4% of respondents were satisfied with their life while dissatisfied one was 45.6%, and there was no gender difference. 45.5% was poor sleepers. Sleep disturbance and sleep quality satisfaction were the worst two of the seven sleep factors, sleep disturbance and sleep latency followed. Higher educated people slept better ($P < 0.001$), and no gender difference. Individual variable, such as gender, education and daily excise frequency, had no difference in optimism, while people with better perceived health ($P < 0.001$) and had religious faith ($P < 0.01$) were more optimistic. Optimistic person was not only easier to fall asleep, had lower sleep disturbance and higher sleep satisfaction, but also had higher life satisfaction. Stepwise regression analysis showed peoples' life satisfaction could be significantly predicted by one's optimism ($\beta = 0.397$) and sleep quality ($\beta = -0.179$) ($\text{Adj.}R^2 = 0.217$).

Conclusion: Forty-five percent of adults were poor sleepers. The predict factors for life satisfaction were optimism and sleep quality. Optimistic people had better sleep quality and higher life satisfaction.

Keywords: Optimism、Sleep Quality、Life Satisfaction

A108

加密影像上使用區塊交換在加密前保留空間之可回復資訊隱藏技術

Reversible data hiding using block exchange and space reservation in encrypted images

作者^a王晟熹 作者^b蕭如淵

^a服務單位：國立彰化師範大學

^b服務單位：國立彰化師範大學

^a聯絡人電子郵件：gary062481@gmail.com

摘要

在加密影像上使用可回復資訊隱藏技術已經有許多學者進行研究，這種技術不只可以保護機密資訊也可以保護影像不被人讀取，使在傳遞時可以有效的保護個人隱私。在本文中我們改良了以區塊交換為基礎的可回復資訊隱藏方法。我們的方法會將影像區塊分為隱藏機密資訊的保留區塊與儲存回復資料的區塊兩類，我們將影像切割為相同大小的區塊，接著根據機密資訊長度計算出需要預留的區塊數量後，將適量區域複雜度較高的區塊移至影像的上方，再將所選定的這些區塊內的像素值的最小權重位元(Least significant bit, LSB)擷取之後，運用可回復資訊隱藏的方式藏入到非保留的區塊中，再將藏完之影像進行加密，最後將回復所需額外資訊與機密資訊藏匿於加密影像中保留區塊中像素值已清空的 LSB 位置中。在取出機密資訊與影像回復階段，將回復所需額外資訊取出後依照內容便可以順利將機密資訊取出，使用解密金鑰將影像解密後運用可回復資訊隱藏的方式，把備份的 LSB 取出便可將影像回復為原始影像。從實驗結果上可知，在相同藏量下，我們的方法可以有效的提升解密後影像品質。

關鍵詞：資訊隱藏、影像加密、區塊交換、直方圖

Abstract

Numerous research have been conducted on the reversible data hiding in encrypted images. This technology not only protect secret data but also prevent images from being read, which effectively protects personal privacy during transmission. In this study, we improved the reversible data hiding method based on block exchange. Our method divides the image into two block types: reserved blocks to hide secret data and the other blocks to store data for recovering. We cut the image into blocks of the same size, and then calculate the number of blocks that need to be reserved according to the length of the secret data. Appropriate amount of more complexed blocks were then moved to the top of the image followed by extraction of the pixel values' least significant bit (LSB) in the selected blocks. The reversible data hiding method is used to embed the extracted LSBs in the non-reserved block. Next, the hidden image is encrypted. Finally, the secret data and the auxiliary information required for recovery are hidden in the LSB position of the pixel value in the reserved block in the encrypted image. In the secret data extraction and image recovery stage, the auxiliary information required for secret data extraction and image recovery can be taken out from the LSB positions of the reserved block pixels. According to the content, the secret data can be taken out easily. Original image can be restored by decrypting the image with a decryption key and extracting backup LSB by the reversible data hiding method. Experimental results show that under the same embedding capacity, our method *can effectively improve the quality of the decrypted image*.

Keywords: *Data hiding, encrypted image, block exchange, histogram*

A109

跨領域課程規劃及產品設計

孫稜雅^a 許宮銓^b 王四切^a

^a 嘉南藥理大學藥學系

^b 長頸鹿藥局

tzchwa@mail.cnu.edu.tw

摘要

醫療服務為跨專業的團隊合作，需藉由不同領域專業共同照護。因此透過「社會服務學習」課程培養學生團隊合作精神與溝通技巧、同時亦可增加人際關係與跨領域專業之對話，並培養解決問題與啟發反思之能力；然而學習已不再是單純的紙上談兵，藉由課程規劃，讓學生可以「做中學，學中做」，並同時培養體諒與反思同時發揮服務精神，進而肯定其價值。

2020 年嚴重特殊傳染性肺炎疫情之影響，健保特約藥局承接協助政府代售口罩的重責，一肩擔負起公共衛生防疫衛教角色，向民眾宣導正確防疫觀念，也減少民眾不必要的恐慌。由於健保特約藥局大多僅一人藥師，為避免協助口罩、酒精發放與防疫宣導事宜而耽誤既有之處方箋調劑及藥事服務，課程規劃讓學生一同參與此波疫情之公衛服務。透過課程讓學生設計與公共衛生相關之創意桌遊與增加長者復能產品，並進駐健保特約藥局協助防疫及公共衛生推行。

關鍵字：創意產品、桌遊設計、社會服務學習、跨領域團隊合作

A110

高齡全人照護問題導向學習(PBL)課程特性與執行成果探討

孫稜雅^a 許宮銓^b 王四切^a^a 嘉南藥理大學藥學系^b 長頸鹿藥局

tzchwa@mail.cnu.edu.tw

摘要

鑒於我國面臨高齡海嘯來襲，政府發展長期照顧刻不容緩，長照服務法 2.0 之專業資格人員於 2017 年將藥師納入；長照十年計畫 2.0 欲達因地制宜發展在地化、社區化長期照顧服務體系的目標，並結合民間服務單位，規劃成立「社區整合型服務中心 (A 級)」、「複合型服務中心 (B 級)」、「巷弄長照站 (C 級)」，以建構優質、平價、普及的照顧服務體系，社區藥局藥師功能不可或缺。

為此本研究自 2017 年起結合高雄榮民總醫院高齡醫學中心跨領域團隊與具主動、熱心公益之醫院、健保特約藥局之藥師及長期、日間照護機構等單位共同建構社區整體照顧模式，規劃執行「高齡全人照護問題導向學習 Problem Based Learning (PBL) 課程」。課程期間由專業師資結合跨領域引導與同儕間的腦力激盪，培訓學生於評估個案問題時，能多方面思考且提出更全面與實際之解決方案，而不僅侷限於藥物問題；此外，還訓練學生使用 AABCC 及 PCNE 等 Drug-related Problems (DRP) 之紀錄表進行登載以及實際練習操作嘉南藥理大學的照護記錄系統，幫助學生能與未來執業接軌，促使經本課程結訓之準藥師在全人照護服務可更加完善。

關鍵字：問題導向學習、長期照護、高齡全人照護

A111

員工網路素養與長照機構知識管理能力相關性探討

Exploring the Associations between Employees' Network Literacy and Long-term Care Institutions' Knowledge Management Capability

郭于瑄¹ 陳羿蓓¹ 林詩涵¹ 徐鈺娟¹ 張碩芳²

¹嘉南藥理大學醫務管理系學生

²嘉南藥理大學醫務管理系副教授

²通訊作者 shofangchang@gmail.com

摘要

在高齡化社會下，長照機構的知識管理能力關乎組織的競爭力。另一方面，員工使用網路的能力可以增加知識獲取的速度與質量並提升機構的知識管理能力。本研究採問卷調查法，使用「知識獲取」、「知識應用」、「知識轉換」、「知識保護」及「網路素養」五個構面來衡量。以分層比例抽樣 400 家長照機構，有效問卷 118 份，問卷回收率為 29.5%。資料分析以皮爾森相關分析、迴歸分析等方式進行。結果顯示長照機構知識管理能力現況中，知識獲取與知識應用能力相較於其他能力高，知識轉換的能力相對較低。員工網路素養現況中，機構的員工網路溝通交換能力相對於其他高，但使用電腦應用軟體的能力是較不足的。其中也發現機構取得其他機構的新知的能力是較弱的。建議機構可以加強使用資訊科技技術，例如設置內部資料的職位存取權限等，來避免資料被不當存取；以及可與同業共同合作辦理知識交流活動增進機構間的知識分享。對於長照機構員工則建議員工應加強網路應用的能力，以強化自我職場競爭力。

關鍵詞：知識管理、長照機構、網路素養。

Abstract

In an ageing society, the knowledge management(KM) capability of a long-term care institution is related to the competitiveness of the organization. On the other hand, staff's capability to use the internet can increase the speed and quality of knowledge acquisition and improve an organization's KM capabilities. The research uses a survey approach, and is measured using five constructs including knowledge acquisition, knowledge application, knowledge conversion, knowledge protection and network literacy. A stratified sample of 400 long-term care institutions were selected, and 118 valid questionnaires were received, with the effective response rate of 29.5%. Data analysis was conducted by Pearson correlation analysis, regression analysis, etc. The results show that the current status of long-term care institutions' KM capability is highest concerning the capability of knowledge acquisition and knowledge application and the capability of knowledge conversion is relatively low. In the current status of employee's network literacy, the capability to communicate with and exchange information over the network is relatively high compared to others, and the capability of computer application is relatively low. It was also found that the capability of long-term care institutions to acquire new knowledge from other institutions was relatively weak. The study suggests that organizations use IT technology, for example setting up job access to organizational data, etc to avoid insecure access to data; and to collaborate with their peers in knowledge exchange activities in order to enhance knowledge sharing among organizations. For the employees in long-term care institutions, it is suggested that the staff improve the capability of web application so as to enforce their working competitive advantages in an organization.

Keywords: knowledge management(KM)、long-term care institution、network literacy。

A112

交互教學法結合即時反饋系統於國中學習障礙學生閱讀成效之分析

Reciprocal Teaching Combined with Instant Response System on Reading Comprehension for Junior High School students with Learning Disabilities

蕭靜宜^a 翁富美^b

^a 吳鳳科技大學應用數位媒體系

^b 吳鳳科技大學應用數位媒體系

^a 聯絡人電子郵件 shiao1008@yahoo.com.tw

摘要

本研究旨在探討交互教學法結合即時反饋系統是否能提高學習障礙學生學習語文的動機，以及能否有效增進學生閱讀理解能力。研究者採用單一個案研究法之 A-B-M 設計，並以國中九年級學習障礙學生作為研究對象，透過自編閱讀理解測驗，搜集文本理解表現的資料，以目視分析、C 統計等方式進行資料處理，探究教學介入的立即與維持成效，並訪談學生、教室日誌等作為質性分析資料了解學生學習動機。

關鍵詞：交互教學法、即時反饋系統、學習障礙、閱讀理解能力

Abstract

The purpose of this research was to investigate the effects of reciprocal teaching method combined with Interactive Response System on the learning motivation and reading comprehension of junior high school students with learning disabilities. The researcher used the A-B-M design of the single-case research. The research participants consist of three 9th-grade students with learning disabilities of the same school. The teaching experiment collected information through self-designed reading comprehension test. The researcher investigated the immediate and maintenance effects, interviewed the students, and classroom logs, collected these qualitative information to understand the learning motivation. The data were analyzed by visual inspection and C statistic.

Keywords: *Reciprocal teaching* 、*Instant response system* 、*Learning Disability* 、*Reading comprehension*

A113

建構藥事照護服務平台之研究

A study of Constructing a Medicine Care Service Platform

薛雅明^a 劉川綱^a

^a嘉南藥理大學 資訊多媒體應用系

^achgliu@mail.cnu.edu.tw

摘要

近年來，台灣人口結構轉變，加上醫療進步，年長人口急速增加，據研究報導，台灣將於 2018 年正式邁入高齡化社會。雖然台灣具有優秀的醫療照護系統，而且多數民眾也大多可以負擔醫療費用支出。但是一些報告顯示，很多銀髮族常常會因為一些老化的症狀，諸如慢性病後遺症、藥物代謝、記憶衰退而無法確實依照醫囑而進行疾病治療過程，甚至會因為誤時或混合藥品食用，導致藥物交互用而造成不良的後果。基於這些原因，有必要需要一些輔助方式可以協助受醫療者確實遵守醫囑，本研究開發一個藥事照護服務的資訊平台，提供民眾、社區藥局以及醫療院協同合作，共同維護與檢視病患的用藥情況，如此可以有效掌握病患醫療後之效果外，也可減少諸多多餘的醫療費用，而且該平台亦可提供病患與醫師可以有共同討論機會，提供各種用藥安全建議。此外，本銀髮族藥事照護服務資訊平台更可以讓社區藥局藥師亦方便進行居家藥事照護，因此，本平台可以讓醫師、藥師與民眾三方即時掌握相關的病情或醫療狀況，達到提升藥事照護的品質，更減少諸多不必要的醫療支出與行為。

關鍵詞：藥事照顧、資訊平台、用藥安全。

Abstract

Recently, the structure of people in Taiwan changes due to the aim of advance of medical technology. The population of the elder grows up quickly. Hence, Taiwan has been an Aging society since 2018. Although Taiwan has advanced medical care system and most people can afford the medical fee nowadays, there are still many people which do not obey the medical advice during medical procedure because of memoryless or sequelae of chronic disease, which may result in very serious medical consequences or more medical waste for the following medical treatment. Hence, this paper develop a platform of providing a medicine care service for three parts of the whole medical treatment, Doctor, Pharmacist and the patient. This platform provides a chance or a place for them to discuss the security of taking medicine and the statement of this treatment. In this platform, Doctor can monitor the state of the patient and give the advice to the patient. Furthermore, this platform also can be very helpful to promote the whole medical quality and to promote the health of a community. Hence, we expect that our platform can promote the medicine care service and can save much additional cost for the unnecessary medical.

Keywords: Medicine care, information platform, the security of taking medicine

A114

The Effects of Chlorhexidine on the Retention of the Composite Resin Filling Using Etch-and-rinse Adhesive

Li Gi-Tsin^a Sun Hui-Ping^b^a Department of dentistry, Tainan municipal hospital(Managed by Show Chwan Medical Care Corporation),Taiwan^b Department of nursing , Tainan municipal hospital(Managed by Show Chwan Medical Care Corporation),Taiwan^ayvonneilv@gmail.com

Abstract

I. Object:

The purpose of this study was to investigate the effects of chlorhexidine(CHX) on the retention of composite resin filling. It has been demonstrated that CHX solutions are capable of inhibiting matrix metalloproteinases (MMPs) and reducing collagen fibril solubility in an aqueous medium. CHX has been recommended by various authors as an effective agent to disinfect dentin. It is also effective in reducing the levels of *S. mutans* found on exposed carious root surfaces. Therefore, the purpose of the study is to investigate whether using CHX after total etching could maintain the retention of composite resin filling.

II. Materials & Methods:

According to evidence-based dentistry, PICO format was as follows: the patient or problem-the patients who need composite resin filling, the intervention-using CHX, comparison of interventions-not using CHX or placebo solution, the outcome-maintain the retention of composite resin filling. Utilizing English key words by Boolean logic ,excluding in vitro studies and non-etch-and-rinse adhesive , the results were as follows:2 randomized controlled trials (RCT) and 2Cohort studies.

III. Results:

The first RCT was designed as randomized, split-mouth and triple-blind clinical trial. The primary clinical outcome was to evaluate the retention of the restoration of non-cariou cervical lesions. After 36-month of follow-up, the result showed that there was no difference between experimental group and control group($p=0.968$).The second RCT was a randomized, split-mouth and triple-blind clinical trial. The primary clinical outcome was to evaluate the retention of the restoration of non-cariou cervical lesions. As for retention rate, after 6 months of follow-up, there was no statistically significant difference between control and test treatments ($p=0.920$). The incidence of no retention in test group is 3.29% and that of control group is 3.57%, Number needed to harm (NNH)=357.1.The first cohort study was a randomized and split-mouth clinical trial. There was no statistical difference between two groups regarding to retention rate after 36 months follow up. The incidence of no retention in test group is 24% and that of control group is 12%,NNH=9.The second Cohort study was a randomized and split-mouth clinical trial. Children presenting at least one pair of contralateral primary molars with occlusal carious lesions were enrolled in the study .There was no statistical significant differences of bond strength between control group and test group.

IV. Conclusion:

According to these 4 studies by the method of evidence-based medicine, we could get a conclusion that CHX did not enhance the retention of composite resin filling when using etch-and-rinse adhesive.

Keywords:Chlorhexidine,Composite Resin Filling

A115

影響外傷性顱腦損傷患者住院天數的因素

Factors affecting hospital length of stay in traumatic brain injuries patients

陳美雯^a

^a義守大學醫務管理學系所

^aaecn2239@gmail.com

摘要

目的：外傷性腦損傷與死亡和殘疾息息相關，瞭解外傷性顱腦損傷病人住院天數及分析與住院天數之影響因子。
方法：方法：本研究以病歷回溯方式分析三年間某南區醫區域教學醫院外傷資料庫 2016~2019 年 18 歲以上外傷性顱腦損傷住院病人共 230 名，分析性別、年齡、昏迷程度(Glasgow coma scale, GCS)、外傷嚴重度(Injury Severity Score, ISS)、以及是否接受開顱手術與是否呼吸器使用和加護病房住院天數等變項探討與總住院天數的相關性。
結果：多元迴歸模式結果指出 $F=199.23$, $P=0.001$ ，表示迴歸模式具有統計顯著。昏迷程度 $\text{Beta} = -0.080$, $P=0.026$ 具統計顯著意義，顯示昏迷程度(GCS)愈嚴重，則總住院天數愈多。ISS 損傷程度 $\text{Beta}=0.019$, $P=0.578$ ，不具統計顯著意義，是否呼吸器使用存在共線性問題($VIF=7.46$)、年齡與性別亦與總住院天數無關聯。以羅吉斯迴歸分析結果發現 GCS(5-8 分) $OR=0.05$, $95\%CI$ 0.001-0.442, $P=0.020$ ，表示 GCS(5-8 分)每增加一分，死亡是存活的 0.105 倍。

結論：透過多元迴歸分析，加護病房住院天數、接受開顱手術、昏迷程度(GCS)三項是總住院天數的主要影響因素，亦可預測住院天數。以羅吉斯迴歸分析可以推論 GCS(5-8 分)與死亡率有直接關係。本結果可以提供各區域醫院對於外傷顱腦損傷患者住院天數之管理作為參考。

關鍵詞：TBI、Glasgow coma scale、ISS score、住院天數、加護病房(至多五項)

A116

病人住院經驗調查—以南部某醫院為例

A survey of inpatient experience : The case of a hospital in Kaohsiung

朱沛貞^a 陳依琳^b

^a義守大學醫務管理學系碩士班

^b義大醫療財團法人義大醫院醫療品質部

^as6361424@gmail.com

摘要

目的:為了瞭解住院病人對個案醫院所提供醫療照護服務之經驗，並作為醫院住院服務改善之依據，進而提昇住院病人之滿意度。**方法:**採用衛生福利部醫療品質政策辦公室發展之一套適用於台灣、以病人住院照護經驗為主軸的醫院住院醫療照護品質測量工具—「病人住院經驗調查問卷」來做調查。調查區間 2019 年 7 月~8 月止，共回收 412 份，經剔除無效問卷後，回收有效問卷共計 397 份。**結果:**正向程度較高三名項目為:護理人員的技術足以處理狀況(正向程度 89.35%，普通 10.65%，負向程度 0.00%)；護理人員有用您能了解的方式清楚地回答您的問題(正向程度 89.35%，有時候有 9.87%，負向程度 0.78%)；護理人員清楚地向您說明各種藥物的使用方式(正向程度 89.30%，有時候有 10.44%，負向程度 0.26%)。負向程度偏高三項分別為:醫院整體的清潔(正向程度 73.32%，普通 19.17%，負向程度 7.51%)；主治醫師探視停留時間 (正向程度 78.28%，普通 14.90%，負向程度 6.82%)；醫院提供志工服務(正向程度 82.52%，有時候有 10.68%，負向程度 6.80%)。**結論:**個案醫院醫師、護理人員與其他醫療人員皆能提供足夠與適切的醫療照護，並有解決病人問題的能力；整體醫療人員也能表現出醫療團隊照護一致的程度；且住院病人對於醫院服務能感受到保有個人的隱私，也願意推薦醫院給親友。

關鍵詞:病人住院經驗

A117

以關聯規則學習法與社會網絡分析法萃取皮膚專科知識之應用

An Application of Association Rule Learning and Social Network Analysis for Extracting Dermatology Knowledge

郭光明^a 潘淑雅^{b*}

^a義守大學醫務管理學系

^b義大醫院醫事處

^b ed103389@edah.org.tw

摘要

由於臨床醫師治療病人時的思維部分可能來自內隱知識，治療病人的思考邏輯便可能無法完全由教科書所獲取，這對於仍在學習階段的住院醫師及畢業後一般醫學訓練的教育與學習成效可能有所限制，針對此問題，本研究計畫透過資料探勘方式從臨床醫師所開立醫囑萃取其醫療專業知識，並分別從微觀與巨觀的角度建構基於實證醫學的醫療知識。本研究主要目的為針對南部某一大型教學醫院皮膚科較常發生的皮膚疾病，進行包括：1)利用關聯規則方法，從微觀角度找出與疾病診斷碼相對應的醫令組合，以及，2)利用社會網絡分析方法，針對前述所找出的疾病診斷碼相對應的醫令組合，從巨觀角度進一步分析各種疾病診斷碼與醫令之彼此間整體的關係。本研究計畫所產出的疾病診斷碼與疾病治療醫令的關聯規則以及彼此之間的網絡關係，將可提供住院醫師或畢業後一般醫學訓練學習專科醫療知識使用，以及醫療機構在擬定臨床所需治療指引時的參考。

關鍵詞：皮膚疾病、關聯分析法、社會網絡分析

Abstract

When physicians diagnose and treat patients, part of the thinking may derive from their implicit knowledge. The logic of such thinking may thus not be completely acquired from textbooks, which may limit the learning efficacy of residents or post-graduate year training who are still in the process of learning required medical knowledge. To cope with this issue, this research project plans to extract evidenced-based medical knowledge, in both micro and macro perspectives, from the orders prescribed by physicians via data mining approach. This research project therefore aims to 1) utilize association rule learning to ascertain the association between diagnosis codes and treatment orders prescribed by physicians, and 2) use social network analysis to discover the entire network structure of the relationships among all the diagnosis codes and treatment orders identified in the first step. The results of this research project including the association rules between diagnosis codes and treatment orders and the network structure of all the diagnosis codes and treatment orders are expected to be helpful for 1) providing specialty knowledge that can be learned by residents or post-graduate year training, and 2) providing as a reference when healthcare facilities are establishing their clinical guidelines..

Keywords: Skin diseases, Association rule analysis, Social network analysis

A118

失智症個案初入住長照機構適應遷移壓力之護理經驗

Nursing care experience of a dementia patient for adapting to relocation pressure to stay in a long-term care institution

陳錦紅^a 林為森^b

^a嘉南藥理大學醫務管理系暨碩士班

^b嘉南藥理大學老人服務事業管理系

^aa0989681846@gmail.com

摘要

背景：失智症的疾病歷程，個案從發病到臨終，始終在忘記與記得之間尋找平衡，遷移新環境對於初次入住機構的失智症個案，面臨環境改變，常會造成個案妄想，混亂狀況加劇，對個案有重大的身心挑戰。

目的：為解決失智症個案於新入住機構時的身心問題，本研究主要目的是利用羅氏適應模式評估個案身心問題，並進行適當的照護處置，以協助個案能在入住初期時逐步克服遷居所帶來的壓力，使個案睡得著、吃得好，並減輕妄想症狀。

方法：以羅氏適應模式評估高齡中度失智個案，經由觀察、會談、身體評估、傾聽等方法收集資料，並運用羅氏適應模式評估個案生理及心理之需求，並提供適當的照護方式，以協助個案解決遷居適應問題。

結果：經模式評估後發現個案在遷居過程中，會有生理、自我概念、角色功能、相互依賴的問題，照護方式以固定的照護人員、現實導向的照護過程，結構性的生活作息，長時間的個別陪伴關懷，改善個案身心問題，並讓個案得以逐漸適應機構生活。遷居的提早規劃，持續與密集的入住過程的評估與適切的護理照護，可以減少個案因遷居所產生的壓力問題。

結論：機構對於協助失智症個案解決遷居壓力，應依個案的情境提供個別化的照護模式。一個圓滿的遷居入住機構計畫，需要個案及其家庭，照護團隊共同努力，以增進失智症個案入住機構的生活品質。

關鍵字：失智症、遷居適應、遷居壓力症候群、長期照顧

Abstract

Background: The Dementia patient from the onset to the end of life, always look for a balance between forget and remember. When they move to a new environment, their confusions make great physical and mental challenges.

Purpose: In order to solve the physical and mental problems of dementia cases to stay in new institutions, the main objective of this study is to assess the physical and mental problems of individual cases using Roche adaptation mode and to carry out appropriate care for assisting cases to gradually overcome the stress of relocation, so that cases can sleep, eat well and reduce delusional symptoms.

Methods: Assessing a dementia case in the senior year by Roche adaptation model, collecting data through observation, talks, physical assessment, and listening. Find out physiological and psychological needs of the case and provide appropriate care to assist the case in resolving relocation adaptation problems.

Results: After the model assessment, it was found that the case in the relocation process, there were physiological, self-concept, role function, interdependence problems. A care model including a fixed care personnel, realistic-oriented care process, structural life, long-term individual accompany can improve the physical and mental problems of the case, and make the case gradually adapt to institutional life. Early planning of relocation, continuous and intensive assessment of the occupancy process and appropriate care can reduce the stress of moving cases.

Conclusion: Long-term Care institutions should provide individual care models on a case-by-case basis to assist in resolving the stress of relocation in cases of dementia. A successful relocation agency program requires the joint efforts of cases and their families and care teams to enhance the quality of life of institutions with dementia cases.

Keywords: dementia, relocation, relocation stress syndrome, long-term care

A119

建置銀髮族互動諮詢平台

蘇致遠^{*a} 江啟惠^a 柳霽甄^a 陳園臻^a

^a嘉南藥理大學資訊管理系

*zysu@mail.cnu.edu.tw

摘要

高齡化社會的來臨，而資訊技術的發展，已成為因應高齡化社會的解決方法，特別是因為行動設備與感測技術的進步，使得我們有更大的機會，尤其穿戴式裝置與各式感測元件，在價格上及普及度等都有所改善，因此也可以用在協助銀髮族在健康管理上的各種應用，因此建立智慧健康服務模式已經成為重要且充滿商機的產業趨勢。高齡化社會來臨，對於銀髮族預防照護及關懷的需求也隨之增加，尤其是亞健康銀髮族，這些族群生活圈多半都在在家或於住家附近，不過偏鄉社區關懷據點提供服務的能力有限，在居家銀髮族的照顧上比起照顧中心照顧失能或身心障礙銀髮族上，其能力更為有限。因此本研究希望建置平台，協助關懷據點，以資訊科技，包含了雲端平台、APP、感測技術，透過追蹤紀錄、健康偵測、提供健康及關懷諮詢等，輔助亞健康銀髮族在生活起居上更有自立生活之能力，及讓銀髮族與學校建立起完整的連結，實踐大學社會責任。本研究於試辦階段以阿蓮區在地銀髮族為對象，發展樂齡行動照護之系統雛形，相信未來對於社會會有重要的貢獻，相關業者亦可與本校合作開發。

關鍵詞：物聯網、健康管理、關懷據點

A120

一位再發性氣胸行胸腔鏡手術個案之護理經驗

郭惠雯^a 鐘苡菱^{a,b} 洪秋霞^a

^a 台南市立醫院 護理部

^b 嘉南藥理大學 醫務管理系暨碩士在職專班

a.sammi78694@gmail.com

摘要

本文旨在描述一位 20 歲年輕女性因再發性氣胸行胸腔鏡手術，面臨身、心衝擊之護理經驗，筆者於 2018 年 10 月 10 日至 10 月 12 日護理期間，運用 Gorden 十一項健康評估為護理評估架構，藉由觀察、傾聽、陪伴及會談等方式收集資料，亦針對資料收集結果，完成統整及分析，確立主要健康問題有低效性呼吸型態、急性疼痛及焦慮。照護過程中筆者時時關懷個案，建立良好護病關係，引導個案願意分享對疾病復發不安感，抒發再發性氣胸導致焦慮，進而增加面對手術及疾病的自信心。更藉由個別性的護理措施，教導個案正確深呼吸及咳嗽技巧、運用疼痛控制及轉移注意力等方法，平緩生理不適，亦提供活動式胸腔引流瓶置放輔具，促進及早下床活動；甚以智慧化護理指導幫助個案及家屬掌握自發性氣胸復發的相關訊息暨返家日常照護注意事項，避免壓力性氣胸衍伸致命危機，進而提升生活品質。期望此護理經驗能提供護理人員日後照顧此類個案之參考。

關鍵詞:再發性氣胸、胸腔鏡、智慧化護理指導。

A121

Development of Biomimetic LDL Removal Filter

T.-T. Huang ^{a,*}, Y.-H. Tang ^a, Y.-M. Lin ^a, M.-H. Shiao ^a, J.-F. Jhong ^b

^a Taiwan Instrument Research Institute, National Applied Research Laboratories, Hsinchu county, Taiwan

^b PURIBLOOD MEDICAL CO, Hsinchu, Taiwan

*tthuang@narlabs.org.tw

Abstract

In this study, by using a new polymer material design with highly biologically compatible anti-adhesive materials and the LDL has a high degree of affinity of synthetic materials, during the special polymer coating equipment to the preparation of low-density lipoprotein (LDL) removal membrane, via this kind of material system, The adsorption behavior of LDL on the surface can be effectively controlled, in which the anti-adhesion characteristics of polymer design can avoid the capture of beneficial substances in the blood and the destruction of blood cells in the filtration process, with LDL adsorption chemical structure, can be significantly adsorption LDL, to achieve low cost and high efficiency, furthermore can be enhance current technology of the biological molecular filtration membrane preparation techniques.

Keywords: *low density lipoprotein (LDL), removal membrane, filter material system, blood cells*

A122

A new redox intercalating probe for electrochemical isothermal nucleic acid amplification platform

T.-T. Huang ^{a*}, Y.-P. Lu ^a, C.-W. Chang ^a, M.-H. Shiao ^a

^a Taiwan Instrument Research Institute, National Applied Research Laboratories, Hsinchu county, Taiwan

*tthuang@narlabs.org.tw

Abstract

The real-time quantitative electrochemical monitoring of isothermal nucleic acid amplification through loop-mediated amplification (LAMP) is a promising renowned methodology to detect pathogenic DNAs. In this work, a redox intercalating probe celestine blue (CB) have been adopted, characterized and successfully demonstrated in real-time quantitative LAMP. Therefore, a real-time quantification of DNA amplification was demonstrated to quantify the initial copy number of target genes on our gold-chip based electrochemical nucleic acid detection platform. CB is metal-free, cheap, eco-friendly, thermally stable and feasible for miniaturized electrochemical nucleic acid chips.

Keywords: *Polymerase chain reaction, LAMP, Electrochemistry, DNA amplification*

A123

現有 3D 列印機器列印噴頭加熱系統之精進

林怡婷^a 陳坦趨^a 彭鈺涵^a 謝明發^a 葛宗融^a

^a中原大學生物醫學工程學系

^an0958579520@gmail.com

摘要

近年來，醫療 3D 列印與醫學影像技術的進步，使得個人化醫療為發展目標，利用電腦斷層掃描或核磁共振攝影等立體成像技術，呈現病患體內三維結構之影像，並利用列印製造技術，客製化患者術前輔助模型、手術導板或體內植體等。然而運用熱擠製技術製備多孔性結構之高分子聚合物材料進行骨組織工程支架的列印，過程中容易造成列印材料以及製備時間的浪費，為了改善高分子材料進行列印時，加熱料桶溫度不均勻或是控溫器溫度不準確，引起材料堆疊不完全。本研究運用負回授控溫技術監控加熱料桶與加熱噴頭區域溫度值，使得加熱噴頭的溫度能於設定值保持恆定，並於堆疊區加入風扇裝置快速冷卻材料以加強列印層積點的黏合度，且針對傳熱效率、加熱片與加熱噴頭設計以及溫度對於骨組織工程支架的成形程度作進一步的分析。結果顯示，從原本 40 分鐘的加熱時間，可有效地縮短至 15 分鐘，且只需將溫度控溫在 60°C，即可成功堆疊骨組織工程支架；每一條列印出骨組織工程支架線徑為 0.38 ± 0.01 mm。本研究不僅成功改善堆疊列印時加熱料桶與加熱噴頭之溫差現象，也提高成品之成功率至 80%。未來能透過此最佳溫度及列印參數製備高分子聚合物材料，穩定大量生產骨組織工程支架。

關鍵詞：3D 列印、列印噴頭加熱系統、負回授控溫技術

A124

低維奈米材料成長特性及其製程參數機器學習之優化研究

Study on the Growth Characteristics of Low-Dimensional Nanomaterials and Machine Learning Optimization of Process Parameters

王耀金^{a*}^a 正修科技大學 資訊工程系

*autherkyn@gmail.com

MOST 108-2637-E-230-002-

摘要

本研究將氧化鎵薄膜製作成金-半-金結構的元件，製備氧化鎵薄膜與元件時，針對不同的製程參數如：基板溫度、熱處理氣氛...等，對薄膜樣品的表面型態、結晶特性、光學特性、成份特性、元件特性...等進行分析，探討製程參數的機器學習之優化。研究中所成長的氧化鎵薄膜厚度為約 200 nm，其初鍍薄膜的表面粗糙度約為 1~3 nm。經過熱處理後，薄膜的表面粗糙度增加至 2~6 nm，推測是因為熱處理後的薄膜具有較大的晶粒尺寸，導致其表面粗糙度增加。同時，當基板溫度由 300 °C 升高至 800 °C 時，氧化鎵初鍍薄膜的能隙值由 4.56 增加至 4.68 eV。當薄膜經過 1000 °C 熱處理後，薄膜的能隙值增加約 0.1 eV，顯示薄膜在熱處理後有愈來愈多的 β 相氧化鎵產生。

關鍵詞：奈米材料、製程參數、機器學習

Abstract

In this research, the metal-semiconductor-metal (MSM) type photodetectors were fabricated by using the sputtered Ga₂O₃ films. By varying the processing conditions such as substrate temperature (Ts) and annealing parameters, different Ga₂O₃ films were prepared. Additionally, the morphological, structural, optical, compositional properties of Ga₂O₃ films and device characteristics were analyzed in detail using machine learning. In this study, the thickness of Ga₂O₃ film is fixed at 200 nm. The surface roughness of the as-deposited Ga₂O₃ films is about 1~3 nm. After annealing, the surface roughness is increased to 2~6 nm. Since the annealed films had the higher crystal quality and larger crystal grain size, it could result in the increment of the surface roughness. Meanwhile, with an increase of Ts from 300 to 800 °C, the bandgap value of the as-deposited Ga₂O₃ film is increased from 4.56 to 4.68 eV. Nevertheless, the bandgap value of the film is increased by about 0.1 eV after annealing process. This indicates that more β-phase crystal structures were formed in the annealed Ga₂O₃ film.

Keywords: nano-materials, process parameters, machine learning

A125

探討青黴素皮膚測試對青黴素過敏之臨床效益

鍾宜芬^a

^a台南市立醫院（委託秀傳醫療財團法人經營）護理部

^a聯絡人電子郵件:fen521515@gmail.com

摘要

病患使用青黴素（Penicillin）醫師開立執行皮膚測試來確定有無過敏反應，研究指出青黴素過敏測試易被高估。本院因藥物試劑不足而全面取消皮膚測試，使用 Penicillin 治療的病人未做皮膚過敏測試是否對病人造成危害？根據臨床狀況形成 PICO，利用中、英文關鍵字及其同義字並使用 Mesh term 搜尋。並於 PubMed、華藝、Proquest、Cochrane library 等資料庫以關鍵字：(penicillin OR penicilli skin test) and (allergy) 搜尋至 2020 年 4 月相關文獻。經篩選與嚴格評讀後，共納入二篇較符合 PICO 的文獻：第一篇文獻使用方法為受試人先做皮膚測試，皮膚測試為陽性的受試者予青黴素，而皮膚試驗陽性的患者中有 50.1% (32/63) 對含有青黴素合成 β-內醯胺藥物呈陽性過敏反應，所以受試者並非對青黴素過敏，而是對青黴素合成 β-內醯胺藥物產生過敏反應，故青黴素過敏反應的陽性預測值可能被高估，使用青黴素皮膚測試效益不大。第二篇文獻針對自訴有青黴素過敏史的 32 名病患，先行皮膚試驗結果為陰性，再予青黴素靜脈注射治療。結果顯示發生過敏反應率為 0%，95%CI 為 0%至 3.3%。由此可知在進行青黴素治療之前進行皮膚測試，其陽性預估值易被放大，故青黴素皮膚測試對於施打青黴素是否會有過敏反應，並無直接相關性，加強過敏評估及處置才是青黴素治療重點。

關鍵詞：(Penicilline, Penicilli skin test, allergy)

A126

建置以職能為導向的醫院學習歷程系統

陳佳蓉^{a*} 周文豪^a 陳俊龍^a^a奇美醫院財團法人奇美醫院 資訊室

*carolchen@mail.chimei.org.tw

摘要

近年來國內醫學教育已將西醫完整之臨床訓練概念，延伸至其他職類醫事人員，並納入教學醫院評鑑範圍，作為各醫院教學任務執行的基本要求。其期待各職類醫事人員透過系統性的訓練制度，接受規範化的專業訓練，培養專業核心能力，以獲得獨立照護實踐的能力，確保醫療服務品質。

然而傳統的紙本學習歷程檔案常因人為疏忽導致資料的不全與遺失且因資料分散、串連性不足，完整取得非常不易。隨著無線網路、行動裝置等資通訊科技的蓬勃發展，奇美醫院發展新一代跨職類的學習歷程資訊平台，並與醫院資訊系統(HIS)整合，提供更簡潔、更深度、更完整的學習歷程資訊，不僅可做為展示或評估醫療教育學習成效的工具，也提供更好的師生溝通管道，增進學習意願、教學效率、與學習成效。

此系統已達到提升同仁專業知能及確保醫療品質之目的。本整合型學習歷程系統資訊平台的職類包含醫師、護理、藥師、醫事放射師、營養師、醫事檢驗師、呼吸治療師、聽力師、物理治療師、職能治療師、語言治療師、臨床心理師、牙醫、中醫等。

架構設計分為三個部份：HIS 與學習歷程系統整合、學習歷程系統、自訂部門表單。為使導入順利，本系統上線前已經過完整的 $\alpha\beta\gamma$ 三階段測試：第一階段以關鍵人物測試，確認資訊系統可用性；第二階段以各單位種子人員進行測試，以消除不完善之處；第三個階段進行單位宣導並於初期上線，進行微優化調整，以達到資訊系統可用性、完整性、易用性。

在使用滿意度回饋方面，使用者在整體功能、協助學習、有意願繼續使用、穩定性、完整性、容易操作均表達高度滿意，本研究成果可作為醫界發展新一代專業教學管理系統之有用參考。

關鍵詞：醫學教育、臨床訓練、職能、學習歷程平台、醫院資訊系統

A127

運用精實手法透過資訊系統提升手術室醫衛材管理效能之成效

劉淑貞^{ab} 張晏萍^b

^a 嘉南藥理大學醫管研究所

^b 台南市立醫院護理部

^a2h0080@tmh.org.tw

摘要

目的：良好的醫療衛材管理不僅可以節省護理人力、更可減少醫療衛材囤積過期，降低醫院成本。如何提升醫材管理效率，確保民眾手術安全及時，是手術室醫療衛材管理重要課題。南部某區域醫院手術室，於108年統計單位醫衛材緊急請領率為6.1%、存貨周轉率9.2，皆明顯高於107年。自108年10月開始導入精實管理消除工作流程浪費，並應用資訊系統結合批價作業

，期望提升手術室醫療衛材管理效能。**方法：**運用精實品管手法，繪製現況價值流圖、親和圖找出問題點，根據標竿學習擬定改善對策：(一)計價作業資訊化：利用資訊系統建構自費醫材計價作業；(二)作業流程優化：更改自費品項請領作業流程，以零庫存作業方式進行下單；(三)自費醫材專用車：自費醫材重新分類擺放專用車及行動車。**結果：**經過介入措施，於109年1月1日至109年4月30日，收集使用自費衛材手術病人總共329人，手術自費衛材急請領率由6.1%降為0%，存貨周轉率由9.2提升至16.9。**結論：**透過精實管理手法及資訊系統運用，改善了醫衛材請領、計價作業流程、縮短手術衛材使用作業流程時間、提升工作人員滿意度。對病人而言：等候使用自費衛材品項花費平均時間縮短，提升手術安全及時性，對醫院而言：存貨金額降低，進而醫院成本降低。

關鍵字：精實管理、資訊系統、手術室醫衛材管理效能

Abstract

Background: Good medical health materials management can not only save nursing manpower, but also reduce the hoarding of medical health materials and reduce hospital costs. How to improve the efficiency of medical materials management and ensure the safety and timely operation of the public is an important issue in the management of medical materials in the operating room. In the operating room of a regional hospital in the south, the statistical unit's emergency request rate for medical and health materials was 6.1% in 1998, and the inventory turnover rate was 9.2, which was significantly higher than that in 107 years. Since October 108, the introduction of lean management has eliminated the waste of work processes, and the application of information systems combined with pricing operations is expected to improve the efficiency of medical and hygienic materials management in the operating room. **Methods:** Using precise quality control techniques, drawing current value flow charts and affinity charts to identify problem points, and formulating improvement measures based on benchmark learning: (1) Informatization of valuation operations: use information systems to construct self-funded medical materials valuation operations; (2) Operation process optimization: change the self-funded items, please obtain the operation process, and place the order with zero-stock operation; (3) Self-paid medical materials special vehicles: reclassify the self-paid medical materials and arrange special vehicles and mobile vehicles. **Results:** After intervention measures, from January 1, 109 to April 30, 109, a total of 329 patients with self-funded health materials were collected and used. The urgent request rate for surgical self-funded health materials was reduced from 6.1% to 0%. 9.2 increased to 16.9. **Conclusion:** Through lean management techniques and the use of information systems, the process of requesting medical and health materials, calculating the price, shortening the time of the operation process of surgical health materials, and improving staff satisfaction are improved. For patients: the average time spent waiting for the use of self-funded sanitary materials items is shortened, improving the safety and timeliness of surgery. For hospitals: the amount of inventory is reduced, and the cost of hospitals is reduced.

Keywords: lean management, information system, management efficiency of medical and health materials in operating room.

A128

REDCap (Research Electronic Data Capture) 系統架設及應用探討醫事人員使用之滿意度研究-以科技接受模式為例

The Development of a Research Electronic Data Capture of Investigation Medical Personnel Satisfaction – Example of a Technology Acceptance Model

薛雅明^a 吳孟堯^b 盛夢徽^c

^a 嘉南藥理大學

^b 嘉南藥理大學

^c 嘉南藥理大學

^c 聯絡人電子郵件 (dream@mail.cnu.edu.tw)

摘要

目前，各醫院機構建立和管理臨床研究數據，多數還是以紙本或個別使用自己建立的電子個案報告表，作為使用與分享的媒介，因為臨床研究文件內容非常的複雜，加上必須遵循許多相關的規範，許多的病歷報告、個案研究，系統架構、規格以及欄位也不盡相同，導致現階段無論是醫生、醫護人員、醫護行政人員或研究機構中心等，在相關的作業流程上需要花費更多的人力、時間與成本。故建立臨床研究電子數據採集系統(Research Electronic Data Capture, REDCap)，無疑會幫助臨床研究人員帶來許多的便利性。

本論文研究以(Davis, Bagozzi, & Warshaw, 1989)所提出的科技接受模式 (Technology Acceptance Model, TAM) 為主要模型，闡述了電子數據採集系統在南部某洗腎中心建置的過程，包含分析複雜的工作流程以及應用情況，再以問卷方式分析系統的系統質量、操作質量、資訊質量，研究結果顯示，REDCap 可以增進效率且快速掌握完整的個案報告資料。

在研究的過程中，透過實證驗證假設，也發現醫事人員對於電腦自我效能有「認知有用性」、「認知易用性」、「態度」及「行為意圖」有正面的影響，有助於提升醫療品質，進而提升醫療電子數據採集資訊的流通，希望本研究成果能提供資訊系統開發者及導入單位未來改善的方向與實行相關計畫時參考的依據。

關鍵詞：科技接受模式、REDCap

Abstract

Nowadays, many medical care organizations hospitals and clinics still use traditional hard copy and soft copy paper work or their own Excel form to build and organize the data from patients. As the role medium of operating and sharing, in the clinical research, there are enormous massive and complicated content with medical records. The medical records also need to show the clear changes of all data for medical staff. Each file has different input fields or computer-managed instructions to follow. It could spend extra time and labor costs on the process. Therefore, establishing a research electronic data capture system REDCap will be beneficial for the medical staff and research specialists undoubtedly.

This paper is mainly based on the technology acceptance model (Davis, Bagozzi, & Warshaw, 1989). The REDcap system was implemented in a hemodialysis center in southern Taiwan. It contained the collections of workflow and actual using's. Adopting the questionnaires to analyze the "system quality", "operation quality", and "information quality". The result illustrates that REDCap can display the complete data form quickly as well as elevate the efficiency for medical staff.

From this paper, the empirical evidence confirmed the hypotheses. It also shows that medical staff is affected positively by the options of "self-efficacy", "cognitive usability", "attitude", and "behavior intention". Furthermore, it can improve the medical quality, and popularize the use of REDcap system. This paper can provide experience for the future direction on planning and operating for information system programmers and the implemented unit.

Keywords: Technology Acceptance Model、REDCap

A129

工作壓力與身心健康之相關-以新北市社區藥局藥師為例

The relationship between work stress and physical and mental health-Taking the pharmacist of New Taipei City Community Pharmacy as an example

洪曉璇^a 謝明娟^b

^a嘉南藥理大學醫務管理所

^b嘉南藥理大學醫務管理系

^airis850626@gmail.com

摘要

目的:醫療制度需要因應時代潮流改變,隨著醫藥制度的改變,藥師在社會上的角色多元且扮演著舉足輕重的地位。若能了解藥師工作壓力及身心健康狀況,將能紓解其壓力進而改善工作效率。本研究目的如下:(1)了解社區藥局藥師之工作壓力與身心健康現況(2)探討人口變項學與工作壓力、身心健康之差異(3)探討社區藥師工作壓力與身心健康之相關情形(4)了解影響身心健康之預測因子。

方法:本研究採自擬式結構性問卷進行調查,並以新北地區社區藥局藥師為研究對象,共發出300份問卷,有效回收率79.3%。問卷內容包含:人口統計變項、工作壓力(職責壓力、政策壓力、銷售壓力與顧客壓力)及身心健康(心理健康、與生理健康)三部分,並以統計軟體SPSS 21.0版進行資料整理與分析。

結果:1.性別、工作年資、年齡、工作時數在工作壓力有顯著差異($p < .05$);自覺壓力與健康在工作壓力與身心健康有顯著差異($p < .05$)。2.工作壓力與身心健康兩者間呈現顯著的負相關。3.政策壓力、銷售壓力與顧客壓力是影響心理健康之預測因子,解釋能力達16%;銷售壓力是影響身心健康之預測因子,解釋能力為12%。

建議:研究結果能提供藥師全聯會與政府相關單位作為制定政策之參考以提升藥師之身心健康。

關鍵詞: 工作壓力 身心健康 社區藥局

Abstract

Purpose: The medical system needs to change with the trend of the times. With the change of the medical system, the role of pharmacists in society is diverse and plays a pivotal position. If you can understand the work pressure and physical and mental health of the pharmacist, you will be able to relieve the pressure and improve work efficiency. The purpose of this study is as follows: (1) To understand the work pressure and physical and mental health of pharmacists in the community pharmacy (2) To discuss the differences between demographics, work pressure, and physical and mental health (3) To discuss the related situation of community pharmacist work pressure and physical and mental health (4) Understand the predictive factors that affect physical and mental health. Methods: This research was conducted by using a structured questionnaire. The pharmacist of the New Taipei Community Pharmacy was used as the research object. A total of 300 questionnaires were issued with an effective recovery rate of 79.3%. The questionnaire includes: demographic variables, work pressure (duty pressure, policy pressure, sales pressure and customer pressure) and physical and mental health (mental health, and physical health), and the statistical software SPSS 21.0 version is used to organize and analyze data. Results: 1. Gender, working age, age, and working hours have significant differences in work pressure ($p < .05$); conscious stress and health have significant differences in work pressure and physical and mental health ($p < .05$). 2. There is a significant negative correlation between work stress and physical and mental health. 3. Policy pressure, sales pressure and customer pressure are predictive factors that affect mental health, with an explanatory ability of 16%; sales pressure is a predictive factor that affects physical and mental health, with an explanatory ability of 12%. Suggestion: The research results can provide the Pharmacists' Association and relevant government units as reference for formulating policies to improve the physical and mental health of pharmacists.

Keywords: work pressure, physical and mental health, community pharmacy

A130

矯正機關員工健康促進生活型態及其相關因素-以某監獄為例

徐春雲^{1,2}、葉德豐³、黃建財³、林川雄⁴、黃麗玲^{3,*}

¹ 中臺科技大學醫療暨健康產業管理系碩士生

² 法務部矯正署臺中監獄衛生科護理師

³ 中臺科技大學醫療暨健康產業管理系副教授

⁴ 中臺科技大學醫療暨健康產業管理系助理教授

*E-mail: llhuang@ctust.edu.tw

摘要

背景：近年矯正機關收容人數持續超收，工作人力有限、精神體力瀕臨考驗，其職場健康促進成為新議題。

目的：探討矯正機關內員工之健康促進生活型態與其相關影響因素。

方法：本研究以某矯正機關員工為調查對象，包括：個人基本特性、健康促進生活型態等結構式問卷為工具，研究者於 2020/02/03~03/27 親訪，實施全檢。資料經整理建檔後，進行描述性統計，以及 t 檢定、單因子變異數分析、積差相關等統計分析。

結果：樣本 355 名員工中，男女比為 93.5：6.5，五十歲以下(佔 77.7%)、輪班制(51.3%)者居多，10.4%曾參加社團、僅 8.7%參加健康促進課程(1 年內)。但其健康促進生活型態整體平均得分可達 92.80 分，「人際關係」與「壓力處理」構面得分最高、「健康責任」與「營養行為」得分最低，其中與健康專業人員「討論健康狀況」、「詢問自我照顧資訊」、「每週至少劇烈運動 3 次，每次 20 分鐘」最低，均未達 3.2 分(單項滿分 5 分)。經統計檢定，40 歲以下($p \leq .001$)、未婚、無子女、戒護科輪班、靜態活動紓解壓力、未安排休閒活動、未參加健康促進活動者，健康促進生活型態的表現顯著較差($p \leq .01$)。

結論：矯正機關工作性質特殊，提供健康相關線上課程與多元化運動社團，可因應輪班型態的工作方式，特別是對較年輕的員工，藉此可提高工作效率。

關鍵字：矯正機關、健康促進生活型態

A131

整合價值信念規範理論和計劃行為理論探討消費者有機洗髮精購買意願

A Theoretical Integration of Value-belief-norm and Planned Behavior to Explore the Determinants of Individual Organic Shampoo Purchase Intention

賴正育^a 吳柏蓁^b

^a 中原大學企業管理學系

^b 中原大學巨量資料商業應用碩士學位學程

^acylai@cycu.edu.tw

摘要

近年來，隨著經濟、科技的高速發展，環境問題、資源問題及健康問題開始越來越受到人們的關注。而隨著越來越多消費者開始有綠色消費的觀念，企業也開始注重研發及生產綠色產品。然而，過去文獻中對於綠色產品購買意願研究往往將綠色產品概括討論，而忽略各別產品的特殊性，並且也沒有考慮個人的價值取向在綠色產品購買中的影響。因此，本研究結合價值信念規範理論和計劃行為理論提出一整合模型，探討消費者對於有機洗髮精的購買意願，並使用問卷調查針對所提出的模式進行實證。本研究共計回收 309 份樣本，扣除無效問卷後，有效樣本為 272 份，利用偏最小平方法（Partial Least Squares, PLS）進行分析。研究結果顯示，相較於個人或主觀規範，有機洗髮精的購買意願主要受到態度的影響；而結果意識相較於環保意識對人們的態度與規範的影響更大，並且這樣的信念主要是由利生物圈價值取向所形成。研究結果提供許多學術或實務上的見解，除了所建構的整合模型可作為後續研究的基礎，實務上也有助於進一步了解消費者在採購有機產品時的考量。

關鍵詞：有機洗髮精、價值信念規範理論、計劃行為理論、後果意識、購買意願

Abstract

In recent years, with the rapid development of the economy and technology, environmental, resource as well as health issues have begun to attract more and more attention. As consumers gradually began to have the sense of green consumption, the enterprises also began to focus on the development and production of green products. However, prior studies on this issue has discussed green products in general terms, which may ignore the specificities of products respectively. Simultaneously, the impact of personal values in green property purchases didn't get much discussion in prior literature. Consequently, this study combines theory of value-belief-norm theory and planned behavior to propose an integrated model to explore consumers' purchase intentions for organic shampoo. A questionnaire survey was conducted to evaluate the proposed model and hypotheses. A total of 309 samples were collected in this study, and after deducting the invalid questionnaire, the valid sample was 272, which was then analyzed using the partial least squares (PLS). Analytical results show that, compared to personal or subjective norms, organic shampoo purchase intentions are primarily influenced by consumer's attitude. Meanwhile, awareness of consequences has a greater impact on individual's attitudes and norms than environmental concern, and such beliefs are largely shaped by individual's biospheric value. Based on the research results, both academic and practical implications are discussed.

Keywords: Awareness of Consequences, Organic shampoo, Purchase Intention, Theory of Planned Behavior, Value-belief-norm Theory.

A132

臺灣住院之壓傷患者處遇之研究—以南部某區域醫院為例—

龔玉齡^a 簡雅鈴^b^a嘉南藥理大學老人服務事業管理系 副教授^b嘉南藥理大學醫務管理研究所 碩士生^byli2117@gmail.com

本研究在於研究我國住院的壓傷患者處遇，而以南部某區域醫院為例來探究之。本研究對象有 73 位個案，其中住院前即有壓傷之個案 66 位(佔 90%)，在住院期間產生壓傷之個案為 7 人(佔 10%)，可見病患大多為入院前之壓傷患者。住院壓傷患者，男女個案數相當，但以老年人為多，即 71~80 歲 19 人(佔 26%)，81~90 歲 30 人(佔 41%)。壓傷病患，以意識狀況來說，清醒個案 25 人(佔 34%)，非清醒個案 48 人(佔 66%)。可見年齡層越高、意識欠清者因身體活動度差，產生壓傷之機率較高。

壓傷病患，壓傷部位僅有一處者 41 人(佔 56%)，二處以上 32 人(佔 44%)。一處壓傷之個案，常見的壓傷部位以薦骨 31 人(佔 76%)為多，其次為坐骨粗隆 4 人(佔 10%)，壓傷傷口等級以第二級為多，共有 25 人(佔 61%)，其次為第一級 11 人(佔 27%)，住院期間壓傷傷口痊癒者 8 人(佔 20%)、傷口縮小者 8 人(佔 20%)，壓傷個案中有 8 人進行清創手術。在照護上著重於落實每 2 小時翻身、骨突處應懸空、保持床單衣物的平整、減少剪力與磨擦力、保持皮膚清潔與乾燥、均衡的營養、傷口照護等等，其中以加強翻身之成效為最佳。

本研究透過壓傷患者的年齡、意識狀況、身體活動度、壓瘡危險因子評估分數之關聯性，來作為參考指標，進而評估與加強對壓傷傷口的護理照護，企圖藉本研究，期能減少住院患者壓傷的發生，避免傷口惡化，降低醫療成本的支出。

關鍵字:住院、壓傷患者、護理照護

A133

大學生健康認知與健康生活方式對肥胖問題影響之研究-以南部某大學為例

The Influence of Health Awareness and Life Style on Obesity- Take College Students of An University as An Example

吳世望¹ 胡良宇¹ 李貴怡¹ 邱昱瑛¹ 周裕翔¹ 蕭偉倫¹ 潘振玟¹ 李柏毅¹ 顏謙¹
¹嘉南藥理大學醫務管理系(所)

目的：近兩年國內食安問題屢現危機，益發引起社會大眾對於日常生活飲食、行為與健康意識的關注與重視。健康的維持雖然一直為現代人所關注，但似乎不一定能在日常生活中身體力行。此一現象引發本研究探討全台大學生健康意識、生活型態與飲食行為之間的相關情形與影響因素。

方法：以網路為問卷進行調查，對象為台灣某大學之大學生，有效問卷共 306 份。

結果：大學生之健康生活方式對健康認知有顯著影響：健康認知比較高的人，其健康生活方式也會比較高，即對健康的認知有一定的深入了解，相對的就能塑造好的生活品質與習慣。健康認知與健康生活方式對 BMI 是沒有影響。另外，統計結果顯示人口變數中對健康認知和健康生活方式有小部分的顯著，像是性別不同，其對健康認知、健康生活方式之差異分析顯示，男學生會比女學生不僅健康認知較高，生活也較健康。其次在年級健康認知之差異分析看來，三年級學生顯著大於一、二年級，可能因為隨著年紀及生活習慣的改變，漸漸發現要有規律的作息跟正常的飲食。

討論：從問卷的結果可以得知，其實多數人擁有一定程度的健康認知，但健康生活方式卻未能與自身認知的健康認知相對應。像是大部分的人知道肥胖的概念，在飲食觀念上口味也較清淡，並且也表示有在注意自身健康，但生活習慣卻顯得不健康，好比說多數人是缺乏運動且有熬夜習慣，亦無定期健康檢查，上述所造成的原因能從問卷中得到答案。且經過調查發現多數人缺乏運動的原因並非時間的問題而是單純的懶惰，故應該要創造運動友善環境，以能達成鼓勵運動之目標。

關鍵詞：大學生、肥胖、健康認知、健康生活習慣

Abstract

Purpose: The domestic food safety problem has been in crisis for the past two years, and which has aroused the public's attention and attention to the dietary behavior and health awareness in daily life. Although the maintenance of health has always been concerned by modern people, it does not seem to be able to do it in daily life. (Chen Minlang, 2015) This phenomenon triggered this study to explore the related situations and influencing factors of health consciousness, lifestyle and eating behaviors among college students in Taiwan.

Method: The survey was conducted using the Internet as a questionnaire, and the subjects were college students from all over Taiwan. There were 306 valid questionnaires.

Results: Healthy lifestyle has a significant impact on health cognition: people with higher health cognition will also have a higher healthy lifestyle, that is, a certain in-depth understanding of health cognition, relatively can shape good quality of life and habits. Healthy cognition and healthy lifestyle have no effect on BMI. The statistical results show that there is a small part of the population variables regarding health cognition and healthy lifestyle

(1) Gender cognition and health lifestyle: male > female Because most boys are engaged in fitness exercises, boys will understand sports to cooperate What food is more healthy.

(2) Grade health cognition: Grade 3 > Grades 1, 2, and 4 because with the change of age and living habits, it is gradually found that regular work and rest and a normal diet will have a significant response from Grade 3 to other grades.

Discussion: According to the results of the questionnaire, most people actually have a certain degree of health cognition, but the healthy lifestyle fails to correspond to their own health cognition. For example, most people know the concept of obesity and have a lighter taste in dietary concepts, and they also pay attention to their own health, but their lifestyle habits are unhealthy, like most people lack exercise and stay up late, and have Regular health check, the above-mentioned reasons can be answered from the voucher. After investigation, it is found that the reason for most people's lack of exercise is not a matter of time but simply laziness

Keywords: College students, obesity, health awareness Cultivate good living habits

A134

探討音響數位化在線上直播演唱會之應用

洪萬富 陳詠筑

吳鳳科技大學應用媒體系所
shanshin@protonmail.com

摘要

目前在數位時代下，生活所接觸到皆與數位化息息相關，以往多使用底片相機和卡帶式錄音等類比的形式記錄聲音影像。近年因數位產業蓬勃發展，現多以數位的方式保存資料，數位化方便資料傳輸與保存，相較類比訊號不易失真且減少雜訊。現今演唱會音響系統中仍有部份使用類比訊號作業，在數位普及的時代中演唱會音響工程也在作業中有所改變，不僅實體演唱會，現今網路直播蓬勃發展，實體環境的聲音工程作業方式與網路直播有些許不同之處值得探討。本研究之研究目的是希望能透過參與過演唱會現場之聽眾，對數位化後線上直播演唱會成音的滿意度影響因素。

關鍵詞：網路直播、流行音樂、演唱會現場製作、聲音工程製作流程、數位音樂

Abstract

At present, in the digital age, life is all related to digitalization. In the past, analog cameras such as film cameras and cassette recordings were often used to record audio and video. In recent years, the factor industry has been booming, and data is now stored in digital form. Digitalization is convenient for data transmission and storage. Compared with analog signals, it is not easy to distort and reduce noise. There are still some analog signal operations used in concert audio systems today. In the era of digital popularization, concert audio engineering has also changed in operations. Not only physical concerts, but nowadays, live webcasts are booming, and sound engineering in physical environments There are some differences between the operation method and the webcast that are worth discussing. The purpose of this study is to hope that through the live audience of the concert, to explore factors such as user satisfaction and effectiveness of the digital audio system at the online live.

Keywords: Webcast, Pop Music, Live Concert Production, Sound Engineering Production Process, Digital Music

A135

探討導入安寧護理紀錄資訊化護理人員使用之滿意度

鐘苡菱^{a,b} 洪秋霞^a

^a台南市立醫院 護理部

^b嘉南藥理大學 醫務管理系暨碩士在職專班

a.sammi78694@gmail.com

摘要

背景：護理資訊系統穩定發展，安寧護理紀錄是發展中相對不完整的部分，而安寧護理記錄著重呈現全人照護概念，手寫形式既繁瑣且複雜，不僅費時且易有筆誤和遺漏問題，甚因此產生錯誤的醫療風險，再者亦浪費紙張及資料存放空間。

目的：探討護理人員對安寧護理紀錄資訊化之需求，期望藉資訊系統以資料串連和設備相輔相成，減少重覆書寫時間，以增加病人直接護理時間與促進病人安全，甚而提升護理人員使用滿意度。

方法：經資料分析發現主要問題：紀錄單張種類多，繕寫耗時畫面紊亂；交接班需逐頁翻閱，易遺漏照護訊息。隨而導入安寧資訊系統，擬定「安寧護理紀錄」系統功能，整合紀錄單張、簡化作業規劃、增加護理資訊紀錄連結功能。更隨時評估使用問題以即時修正。

結果：2020年4月1日至2020年4月30日查檢30例護理紀錄，安寧護理師繕寫紀錄時間由每例平均60分鐘，降低至平均30分鐘；護理紀錄撰寫滿意度由70%提升至90%。另經整合安寧紀錄單張全數由資訊系統取代。

結論：安寧護理紀錄資訊系統操作便利，紀錄內容亦更清楚；交接班時也能減少遺漏重要照護訊息，滿足護理人員對於紀錄繕寫及交接班需求，進而提升使用者滿意度及工作效能。

關鍵詞：安寧護理紀錄、資訊化導入、滿意度。

A136

運用憑證簽核資訊化，有效降低內容錯誤與縮短核銷時間

Use the information of certificate signing to effectively reduce content errors and shorten the write-off time

劉瓊芬^a 郭怡婷^b 姚宏華^c 黃品嘉^d

^a 高雄市立大同醫院總務室

^b 高雄市立大同醫院會計室

^c 高雄市立大同醫院社區發展中心

^d 高雄市立大同醫院管理室

*998319@ms.kmuh.org.tw (僅留通訊作者即可)

摘要

為維持業務運作順暢，同仁經常代墊業務需求款，然卻因行政人工紙本作業流程冗長，憑證遺失(遺失率每月約1%)、漏核章(發生率每月約15%)、簽核進度無法追蹤等導致延遲收到代墊款項情形頻率過高。為彌補作業流程錯誤，行政成本浪費、同仁代墊延遲收到款項心理壓力大。藉由推行優良與適用的資訊系統，降低行政成本與提高行政服務效率、品質與管理效能，系統導入後可依據系統作業時間統計分析，追蹤相關作業流程檢討改善，簡化憑證審核流程，減少不必要的等待與重複作業之浪費。運用 ECRS 分析手法，探討作業流程分析並改善，刪除 8 個步驟、合併 4 個步驟、調整順序 11 個步驟與簡化 8 個步驟，大幅降低簽核時間，作業時間從 22 工作天到只需 4.2 工作天就完成，總作業時間縮短 80.9%。

關鍵詞：(ECRS、憑證、簽核資訊化、核銷)

Abstract

In order to maintain smooth operation of the business, it is common for colleagues to advance money. Due to the lengthy administrative manual paperwork process, lost certificate (loss rate is about 1% per month), missing nuclear chapter (occurrence rate is about 15% per month), signing progress cannot be tracked, etc.. Circumstances leading to delayed receipt of advance payment frequency is too high. In order to make up for the mistakes in the operation process, it leads to a waste of administrative costs and the psychological pressure of colleagues to delay the receipt of payments. By implementing superior and applicable information systems, lower administrative costs and improve administrative service efficiency, quality and management efficiency. After the system is imported, it can follow the statistical analysis of the operating time of the system to track the related operation process to review and improve. Simplify certificate review process, reducing waste and unnecessary waiting repetition of work. Use ECRS analysis techniques to discuss and improve work flow analysis. Eliminate 8 steps, Combine 4 steps, Rearrange 11 steps and Simplify 8 steps. Significantly reduce the signing time, the operation time from 22 working days to only 4.2 working days to complete, the total operation time is shortened by 80.9%. **Keywords:** (ECRS, Certificate, Signoff of information technology, Write off)

A137

應用禁忌搜尋演算法求解旅行商人問題

Applying Tabu Search Algorithm For Traveling Salesman Problem

劉翰儒、魏凱城

國立彰化師範大學資訊工程學系研究生

國立彰化師範大學資訊工程學系教授

m0754014@mail.ncue.edu.tw

摘要

隨著科技不斷得進步演算法成為關鍵因素廣泛應用於各種領域，如醫學診斷、影像處理、搜尋引擎等有著快速與精確的結果，本篇論文研究的演算法為禁忌搜尋演算法(Tabu Search Algorithm, TSA)，可以允許非改善的移動紀錄儲存在短期記憶中避免循環搜尋，禁忌演算法的性能取決於禁忌清單的長度、鄰域結構與移動紀錄的短期記憶體設定，從一開始的初始可行解出發，再透過初始解當中隨機更改城市編號成為候選解搜尋比較，為了避免陷入局部最佳解在演算法過程當中採用禁忌清單方式記憶，將搜尋過較差的結果暫時放置在禁忌表當中避免重複搜索，禁忌清單的長度要採適當，長度太長搜尋會受到限制，太短則會進入無限迴圈，反覆搜尋得到目標函數的全域最佳解，TS 是一種局部搜尋的全域迭代演算法。旅行商人問題是典型 NP-Hard 問題(non-deterministic polynomial)，此類型問題是組合優化的難題，這意味著尚無多項式函數可以確保得到全域最佳解。TSP 問題可能是對稱或不對稱，在對稱 TSP，兩個城市之間的距離在每個相反的方向相同，形成一個無向圖。本篇論文主要探討禁忌搜尋演算法應用於旅行商人問題的結果得到參數變化。

關鍵字：禁忌搜尋演算法、禁忌表、目標函數、旅行商人問題、對稱

Abstract

With the continuous improvement of technology, algorithms become the main factor and are widely used in various fields. Such as medical diagnosis, image processing, search engine, etc. have fast and accurate results. In this paper we study an algorithm called Tabu Search Algorithm. It allows non-improving moves and avoids cycling by storing recent moves in a short-term memory. The performance of a tabu search depends on the tabu list length, the neighborhood structure and the design of the short-term memory storing moving records. Starting from the initial solution, then randomly changing the city number from the initial solution to become a candidate solution for comparison. In order to avoid falling into the local optimal solution, the tabu list is used to remember in the process. Temporarily put poor results in the tabu list to avoid repeated searches. The length of the tabu list should be appropriate. If it is too long, the search will limited. If it is too short, search will enter the infinite loop. Iterative search to obtain the global best solution of the objective function. TSA is a global iterative algorithm for local search. The traveling salesman problem is a typical NP-Hard problem(non-deterministic polynomial). This type of problem is a typical problem of combinatorial optimization. This means that no polynomial function is known to guarantee its global optimal solution. TSP problem may be symmetric or asymmetric. In the symmetric TSP, the distance between two cities is the same in each opposite direction, forming an undirected graph. This paper mainly discusses the results of the tabu search algorithm applied to the traveling salesman problem.

Keyword : Tabu Search Algorithm, Tabu List, Objective Function, Traveling Salesman Problem, symmetric

A138

消防組織編制對消防救災效能影響之研究-以新竹縣為例

Influence Factors on Efficiency of Fire Control on Organization - Hsinchu County as an Example

紀茂傑^a 林俊昱^a 盧添源^a 郭銘諭^b

^a吳鳳科技大學消防系

^b新竹縣政府消防局

^ajackchi@wfu.edu.tw

摘要

消防人員為災害防救之第一線工作者，因此提升救災搶救效能，對於消防人員執行勤務上是相當重要的。目前在職消防人員於救災工作上會面對到的問題。本研究以新竹縣政府消防局為例，利用問卷調查與文獻資料蒐集方式探討「組織編制對消防救災效能之影響」，共有效回收問卷 123 份，利用 SPSS 統計軟體進行問卷分析。經由問卷資料分析發現，受測者之「居住地」與「服務年資」對於「組織編制」達顯著差異。

關鍵詞：消防人員、組織編制、救災效能

Abstract

The purpose of this study is to investigate the influence factors on efficiency of fire control. The questionnaire of organization was performed and the staffs in Hsinchu County Government Fire Department were examined. A total of 123 valid questionnaires were collected and analyzed by SPSS statistical software. Results show that the residence area and service year has a significant influence on organization. The northern residents are lower than those of the other areas.

Keywords: firefighters, organization, efficiency of fire control

A139

降低血液腫瘤科病房退藥錯誤率

黃怡儒^{1,2,*}、吳世望²

¹ 國立成功大學醫學院附設醫院護理部

² 嘉南藥理大學醫務管理系(所)

*黃怡儒：Email:a0932326878@gmail.com

摘要

本單位自 2018 年 10 月至 2019 年 3 月的退藥總件數為 14,962 件，退藥錯誤件數共 114 件，退藥錯誤率為 7.6%。住院單一劑量藥品退藥是護理師工作中的一部分，由於病人病況複雜，醫囑時常更動，以致退藥量也因而增加；當藥品送到藥局，藥師發現退藥錯誤故再度送回病房，傳送過程中易造成藥品破損，導致要花更多時間處理退藥問題，引發筆者進一步探討的動機，本目的為降低血液腫瘤科病房退藥錯誤率。分析發現退藥錯誤原因包括：人員未能依照退藥規範進行正確退藥、系統問題、藥品標示不明確、藥品放置位置太多等問題。藉由宣導標準退藥規範、製作冰箱有退藥標誌、明確標示藥品擺放位置、稽查藥車退藥等改善方案實施後，自 2019 年 4 月至 10 月退藥錯誤件數降為 6 件，退藥錯誤率降為 0.4%；不僅降低單位的退藥錯誤率，也因此減少護理師在退藥上所花費的時間，並將節省出來的時間重新分配運用在照護病人上，進而提升病人的醫療照護品質。

關鍵字：退藥、單一劑量、錯誤率

智動藥盒設計研發

Smart medicine box design and development

陳秋蘭^a 周朋震^a 李其暉^a 李沛妤^a 吳鴻志^a 盛夢徽^b

^a 嘉南藥理大學藥學系

^b 嘉南藥理大學資訊管理學系

^abetelan@mail.cnu.edu.tw

摘要

一般傳統藥盒的使用率非常低，因為使用不方便。市面上雖然有一些智慧藥盒的開發，但價格又太過昂貴，減少消費者購買的意願。因此本計劃希望設計開發便宜又方便使用的智動藥盒，可應用於罹患慢性病的年長者，減少錯過時間服藥或一次服用太多藥物，增加服藥順從性，進而改善疾病的治療。一般智慧藥盒是將提醒的裝置放置於藥盒上，而在本設計中，則是將智動藥盒的提醒裝置架設在目前流行的智慧型手機上，將 APP 程式連結晶片嵌入藥盒底部，藥盒本身只是提供藥品收納的基本功能，因此藥盒本身變得夠小、夠輕、夠簡單。而 3D 列印材料及晶片也算便宜，因此智慧藥盒可說是一個夠便宜的行動多媒體裝置。其價格可以跟一般傳統藥盒比擬，但多了智慧提醒的功能，跟其他智慧藥盒比較，則較為便宜。此智動藥盒的開發是使用時下流行的 Webdurino 及 3D 列印技術，寫入程式，連結智慧型手機，具有收納藥品及提醒用藥的技術。可將聲音提示及用藥注意事項清楚顯示在智慧型手機螢幕上，讓人手一隻智慧型手機的年長者可以依據手機螢幕上的提示使用藥品，達到有效控制或治療疾病的目的。智動藥盒能夠滿足目標顧客，使其不會忘記吃藥或是吃錯藥、以及簡單、方便的需求，而價格與一般傳統藥盒相當，若大量量產，價格還可更便宜。

關鍵詞：智動藥盒、智慧藥盒、智慧型手機

Abstract

In general, the usage rate of traditional medicine boxes is very low because it is inconvenient to use. Although there are some smart pill boxes on the market, the price is too expensive, reducing consumers' willingness to buy. Therefore, this plan hopes to design and develop a cheap and easy-to-use smart pill box that can be applied to elderly people suffering from chronic diseases, reduce missed time to take drugs or take too many drugs at one time, increase compliance, and improve disease treatment. The general smart medicine box is to place the reminder device on the medicine box. In this design, the reminder device of the smart medicine box is set on the current popular smart phone, and the APP program link chip is embedded in the bottom of the medicine box. The pill box itself only provides the basic function of drug storage, so the pill box itself becomes small, light, and simple enough. The 3D printing materials and chips are also cheap, so the smart pill box can be said to be a cheap enough mobile multimedia device. The price can be compared with the general traditional pill box, but it has the function of smart reminder, and it is cheaper than other smart pill boxes. The development of this smart pill box is to use the popular webdurino and 3D printing technology, write programs, connect to smart phones, and has the technology to store medicines and remind medicines. Voice prompts and medication precautions can be clearly displayed on the smartphone screen, so that seniors who have a smartphone can use the drugs according to the prompts on the smartphone screen to achieve effective control or treatment of diseases. The smart medicine pillbox can meet the target customers, so that they will not forget to take medicine or take the wrong medicine, as well as the simple and convenient demand, and the price is comparable to the general traditional pillbox.

Keywords: Smart medicine box, smart pill box, smart phone

A141

民眾用藥態度與用藥行為之探討

A study on the people's attitude towards medication and their behavior

郭采茵^a 林為森^b 謝明娟^c

^a 嘉南藥理大學醫務管理系暨碩士班

^b 嘉南藥理大學老人服務事業管理系

^c 嘉南藥理大學醫務管理系

^a(kuo8311@gmail.com)

摘要

研究目的: 衛福部近年積極推動正確用藥五大核心，而許多研究也發現，用藥安全知識、用藥態度和行為有顯著相關，用藥態度愈積極正向，正確用藥行為表現愈佳。故本研究目的在探討民眾之用藥行為與用藥態度現況，並了解影響用藥行為之預測因子。

研究方法: 研究採自擬式之結構問卷進行調查，並以台南地區民眾為研究對象，採立意取樣。共發出 400 份問卷，有效回收率為 81%，問卷內容包括人口統計學變項、用藥態度(藥品資訊、藥品遵從、藥品危害與藥品取得)與用藥行為(服藥安全、藥品來源、用藥服從與用藥保存)三部份。並以統計軟體 SPSS 21.0 版進行資料分析。

研究結果: 1.人口統計學變項之年齡、職業、教育程度與健康狀況在用藥態度與行為皆有顯著差異($p < .05$)。2. 用藥態度及用藥行為二大構面之間均呈顯著高度正相關(相關係數 $r=.732$)，即研究對象之用藥態度愈正確、用藥行為愈正向。3.藥品資訊、藥品遵從與藥品取得來源是影響用藥行為之預測因子，可解釋 57.8%之總變異量。

結論:建議衛生相關單位能結合醫療與社區相關資源，並教導民眾正確使用藥物的知識及養成良好態度，以培養正確用藥的積極行為。

關鍵詞: 用藥態度 用藥行為 用藥安全

Abstract

Research purposes: The Ministry of Health and Welfare has actively promoted the five cores of correct medication in recent years. Many studies have also found that drug safety knowledge, medication attitude and behavior are significantly related. Therefore, the purpose of this study is to explore the current status of people's medication behavior and attitudes, and to understand the predictive factors that affect medication behavior.

Research Method: The research was conducted by using a structured questionnaire, and the people in Tainan were taken as the research object, and Liyiyi was sampled. A total of 400 questionnaires were issued with an effective recovery rate of 81%. The questionnaire included demographic variables, medication attitudes (drug information, drug compliance, drug hazards, and drug acquisition) and medication behaviors (medication safety, drug sources, medication compliance, and Medicine preservation) three parts. And statistical data SPSS 21.0 version for data analysis.

Research results: 1.Age, occupation, education level and health status of demographic variables have significant differences in medication attitudes and behaviors ($p < .05$). 2. The two aspects of medication attitude and medication behavior are significantly positively correlated (correlation coefficient $r = .732$), that is, the more correct the medication attitude of the research subject, the more positive the medication behavior. 3. Drug information, drug compliance, and source of drug acquisition are predictive factors that affect drug use behavior and can account for 57.8% of the total variation.

Conclusion: It is recommended that health-related units can combine medical and community-related resources, and teach the people the knowledge of correct use of drugs and develop good attitudes to cultivate positive behaviors for correct use of drugs.

Key words: medication attitude, medication behavior, medication safety

A142

基於深度學習方法之類流感發生率預測

A Deep Learning Based Approach to Forecasting Influenza-Like Illness Rate

黃立紘^a 潘健一^{a,b}

^a慈濟大學醫學資訊學系

^bjjipan@gms.tcu.edu.tw

摘要

流行性感冒是由流感病毒而引起的急性呼吸道感染疾病，部分患者可能會引發嚴重的併發症，甚至造成死亡。流感流行期時長不定，且在人口密集的地區容易發生群聚感染，因此當流行性感冒爆發時，大量患者湧入醫療院所，往往造成人力、醫療資源不足。目的是為了在流感爆發的提早兩周預警，民眾以及相關單位能提早做準備，進而減少醫療資源的支出以及因流感造成的死亡。本研究結合與流感傳染力強弱相關的氣象、空氣品質，以及與疫情嚴重程度有關的聲量資料，合計共九十八種特徵，模型使用深度學習中的長短期記憶模型，預測臺北市兩周後的類流感發生率，並透過移動流行區間法，將發生率分成不同流行程度的警報級別。本研究定義一聲量關鍵字蒐集流程，確保所蒐集的關鍵字能提升預測的準確度並具有效性，研究結果確定了使用 12 週的特徵資料所訓練的模型效果較好，且加入聲量特徵可提高預測相關係數並降低誤差，也驗證特徵資料以週為單位相對於以天為單位，更能提升預測類流感發生率的準確度。及早預警流感的爆發以及疫情嚴重程度的分級，讓決策者能有準確的判斷依據，並做出正確的決策。

關鍵詞：類流感、谷歌聲量、移動流行區間法、深度學習、長短期記憶模型

Abstract

Influenza is an acute respiratory infection caused by the influenza virus. Some patients may cause serious complications or even death. Flu pandemic duration varies and cluster infections are prone to occur in densely populated areas. Therefore, when a flu outbreak, a large number of patients flow into medical institutions, often resulting in insufficient human and medical resources. The objective of this study is to give an early warning two weeks before the outbreak of influenza, the public and related units can make preparations early, and reduce the expenditure of medical resources and death due to influenza. In this research, 98 features that combined with weather, air quality, and network volume data are used as the input features where weather and air quality are related to the strength of influenza infection, and volume is related to the severity of the epidemic. The Long Short-Term Memory model in deep learning is developed and trained to predict the incidence of influenza-like illness rate in Taipei City for two weeks later. The level of the epidemic in this study is based on the Moving Epidemic Method. This study also defines a comprehensive process to collect the network volume of keywords to ensure that can improve the accuracy and effectiveness of prediction. The results of the study show that (1) the feature data divided into 12-weeks cycle length can get better performance in the trained model; (2) the network volume features can improve the prediction correlation coefficient and reduce the error; and (3) the feature data in units of weeks is better than in days from the accuracy of predicting the incidence rate of influenza. Early warning of the outbreak of influenza and the classification of the severity of the epidemic allows decision-makers to have accurate judgments and make correct decisions.

Keywords: Influenza-Like Illness, Google Trend, Moving Epidemic Method (MEM), Deep Learning, Long Short-Term Memory (LSTM)

A143

智慧生理量測系統之成效評估

The Assessment of Performance of Intelligent Vital Sign Measurement Systems

蔡宗宏

慈濟科技大學資訊科技與管理系

tsairob@tcust.edu.tw

摘要

近年來由於健康促進與預防醫學的議題獲得廣泛的重視，民眾越來越重視健康管理。在此社會氛圍之下，生理量測系統便成為重要的自我健康管理的設備。本研究係以資訊系統成功模式、科技接受模式、健康促進模式的整合性觀點，來探討民眾使用智慧生理量測系統之評估。研究對象係以曾使用過智慧生理量測系統之民眾，並以描述性統計分析、探索性因素分析、差異性分析、及迴歸分析等統計方法驗證研究模型。

研究結果顯示：(1)在因素分析方面：本研究共萃取出十個因素，顯示建構效度相當良好。(2)在差異性分析方面：性別無顯著差異，年齡、教育程度、主要照顧者方面則有部分差異。(3)在迴歸分析方面：系統品質、資訊品質、服務品質分別對知覺易用性與知覺有用性有顯著正向之影響。而知覺易用性、知覺有用性、知覺利益分別對使用滿意與使用意圖有顯著正向之影響。使用滿意對健康管理有顯著正向之影響。本研究期望能提供醫療機構、生醫設備廠商、衛生機關一些洞見與遠見，並增進社區民眾未來的健康及福祉。

關鍵詞：智慧生理量測系統、資訊系統成功模式、科技接受模式、健康促進模式。

Abstract

Owing to health promotion and preventive medicine gained substantial focus in recent years, people valued gradually health management. Therefore, vital sign measurement systems have become important devices for people's health management. Based on an integrative view of D&M IS Success Model, Technology Acceptance Model, and Health Promotion Model, the purpose of this study was to explore the influencing factors of intelligent vital sign measurement systems. The survey subjects of questionnaire are the end users of the system in Taiwan. The proposed hypotheses were validated with descriptive analysis, exploratory factor analysis, differential analysis, and regression analysis.

The findings showed as follows: (1) The results of factor analysis showed that ten extracted factors. (2) According to T test, there was no significant difference between two gender groups on all factors. According to ANOVA, there were significant differences among age, educational level, and main carers on some factors. (3) The results of regression analysis showed that system quality, information quality and service quality have jointly significant influences on perceived ease of use and perceived usefulness respectively. Perceived ease of use, perceived usefulness, and perceived benefit have jointly significant influences on usage satisfaction and usage intention respectively. Usage intention has significant influences on health management.

The implications of the findings can provide hospitals, biomedical device companies, health institutions with some insights and foresights to promote better programs, which in turn improve health and welfare of community residents aging in place in future.

Keywords: *intelligent vital sign measurement systems, IS success model, technology acceptance model, health promotion model*

A144

數位音樂應用於國小五年級音樂教學之學習滿意度研究

Study on the Learning Satisfaction of the Application of Digital Music in Elementary School Music Teaching

洪萬富^a 張敬^b

^a吳鳳科技大學應用媒體系所

^bjj0958776785@yahoo.com.tw

摘要

本研究運用音樂編輯軟體融入國小五年級音樂課之教學歷程，探究學生的學習滿意度。研究對象為台中市某國小五年級兩個班級，總共 60 名學生。課程設計依據翰林版第五冊藝術與人文課本，設計二個單元共 10 節課，運用部分教學時間融入音樂編輯軟體 Mixcraft 進行錄製樂曲。課程施測完畢後再進行問卷與問卷分析，探討音樂編輯軟體融入音樂教學是否顯著影響學生的學習滿意度。

關鍵詞：數位音樂、編曲軟體、多元音樂教學、資訊科技、學習滿意度

Abstract

This study uses music editing software to integrate into the teaching process of the fifth grade music lessons of elementary school to explore students' learning satisfaction. The research object is two classes in the fifth grade of a primary school in Taichung City, with a total of 60 students. The course design is based on the fifth edition of the art and humanity textbooks of the Hanlin edition. The two units are designed for a total of 10 lessons. Part of the teaching time is used to integrate music editing software Mixcraft to record music. The questionnaire and questionnaire analysis will be conducted after the course is completed to explore whether the integration of music editing software into music teaching significantly affects students' learning satisfaction.

Keywords: Digital music, Arranger software, Diversified music teaching, Information Technology, Learning satisfaction

A145

以深度學習方法預測肝炎患者之肝硬化進程

A Deep Learning Approach to Predicting the Progression of Hepatitis to Liver Cirrhosis

黃彥超^a 潘健一^{a,b}

^a 醫學資訊學系

^b jipan@gms.tcu.edu.tw

摘要

由於喝酒交際在台灣社交文化當中一直扮演著主要的角色，因此有許多人患有酒精性肝炎或是加速病毒型肝炎惡化。肝炎破壞了肝臟，最後引起肝炎患者肝纖維化，而肝纖維化至肝硬化大約需要二十到三十年是一段很漫長的時間，但是早期症狀不明顯因此常讓病患疏於改變生活習慣以致進入肝硬化階段而不自知，根據衛生福利部統計(104年)慢性肝病、肝硬化則約有5000人死亡。而肝硬化最後也會演變成肝癌，台灣每年也約有7700人因肝癌死亡，可見肝炎是不可忽視的慢性疾病。通常檢驗肝纖維化的方法是通過組織切片進行診斷稱為肝活檢，再根據國際METAVIR評分標準，將肝纖維化分為五個階段。本研究透過深度神經網路(Deep Neural Networks, DNN)來預測肝硬化的進程，用以評估當前的肝的狀態轉至肝硬化的過程。經由選擇14種血液檢測、2種患者的身體特徵以及3種日常生活習慣當作資料的輸入層，而結果將會預測病人當前的肝至其被醫生診斷肝硬化的年限。此篇論文透過三個實驗來比較不同類屬性對於預測結果的影響力，並分別以深度學習與機器學習的模型進行比較，得到深度學習在不同實驗中都有不錯的表現，其中以DNN模型採用患者年齡、性別、CBC and Platelet 檢驗以及患者的日常生活習慣得準確率83.33%最高。

關鍵詞：肝炎、肝硬化、深度學習、深度神經網路、機器學習

Abstract

Since drinking has always been to play an important role in the social culture of Taiwan, many people have alcoholic hepatitis or let viral hepatitis accelerate to worsen. Hepatitis destroys the liver and eventually causes liver fibrosis in patients with hepatitis. It takes about twenty to thirty years for liver fibrosis to cirrhosis, but the early symptoms are not obvious. Therefore, patients are often neglected to change their living habits and enter the stage of cirrhosis without knowing it. According to the 2015 annual report of the Ministry of Health and Welfare, there are 5,000 people died of chronic liver disease and cirrhosis. Cirrhosis will eventually evolve into liver cancer. On the other hand, there are almost 7,700 people die from liver cancer every year in Taiwan, which shows that hepatitis is an unignorable chronic disease. The method of testing liver fibrosis is to make a diagnosis through a tissue section called a liver biopsy. According to the international METAVIR scoring standard, liver fibrosis is divided into five stages. We use Deep Neural Networks to predict the progress of liver cirrhosis, which is used to assess the current liver state to the process of liver cirrhosis. We selected fourteen blood tests, two patient physical characteristics, and three daily habits as the input layer of the data, and the results will predict the patient's current liver to cirrhosis by the doctor's diagnosis. This paper compares the influence of different types of attributes on the prediction results through three experiments and discusses the Deep Learning and Machine Learning models. It can be obtained that Deep Learning has a good performance in different experiments. Among them, the DNN model uses the patient's age, gender, CBC and Platelet test, and the patient's daily habits to get the highest accuracy of 83.33%.

Keywords: hepatitis, cirrhosis, Deep Learning, Deep Neural Network, Machine Learning

A146

高雄某醫院接受免疫治療病患的概況

An overview of patients receiving immunotherapy in a Kaohsiung hospital

林瓏玉^a 陳芬如^b

^a義守大學醫務管理學系研究所

^b義大醫務管理學系

^auna19960303@gmail.com

摘要

癌症治療方式從最早的手術切除治療、化學藥物治療、放射治療和標靶治療都成功延長許多癌症病患的生命，改善了他們的症狀，隨著醫學的進步，專家研究利用免疫系統的活性來對抗腫瘤細胞。目前免疫藥物在台灣已許可用在晚期黑色素瘤、肺癌、腎細胞癌、頭頸部鱗狀細胞癌、何杰金氏淋巴瘤、泌尿道上皮癌(膀胱癌、腎盂癌、輸尿管癌及尿道癌)、胃癌、肝癌、急性淋巴性白血病的治療上，其中在黑色素瘤、肺癌、頭頸癌的治療中取得了不錯的成效。

本研究目的為了解目前台灣的免疫治療種類、核准使用的免疫治療藥物、應用在哪些疾病上，以及該醫院癌症病患使用免疫藥品的現況、何種疾病較多、部門使用免疫藥品的情況並提出建議。

目前台灣大多數接受免疫治療的病患都是使用免疫檢查點抑制劑，截至 2019 年衛福部已核准上市的藥品為舒達 KEYTRUDA、保疾伏 OPDIVO、癌自禦 TECENTRIQ、百穩益 BAVENCIO、抑癌寧 IMFINZI、益伏 YERVOY，根據該醫院資料發現肺癌、肝癌及泌尿道上皮癌的病患人數與使用免疫藥品量最多。有研究顯示病患 PDL-1、微衛星體不穩定性或是腫瘤突變負荷量越高使用免疫治療上會較有效，但該醫院沒有設備檢測微衛星體不穩定性和腫瘤突變負荷量，建議醫院和基因檢測公司合作，使醫生能協助檢驗結果合適的病患接受免疫治療。

關鍵詞：免疫治療、癌症

A147

三高患者專用運動健康管理 App

吳旻勳 蘇善智 林宗勇 蔡郁蕙 黃辰民 陳玟卉 楊媚靜^a 李泉明

樹人醫護管理專科學校資訊管理科

^amable@ms.szmc.edu.tw

摘要

隨著經濟快速發展與生活型態日趨靜態，導致許多人活動量不足以致罹患肥胖與三高的機率增加，適度的運動與飲食控制可以有效改善心肺功能，增進體能，幫助血糖控制。為維持良好的運動習慣並做好有效的健康管理，坊間已發展許多運動健康管理 App，然而多數運動健康管理 App 之功能係針對一般健康人所設計，未必適用於三高疾病患者的運動方式與運動量。本研究特針對三高族群設計一款專用的運動健康管理 App，讓使用者可以輸入相關的量測記錄，並根據自身的身體狀況選擇適合自己的運動強度，除有助於控制自身三高疾病，並且可將所記錄之身體數據提供給專業醫事人員作為參考，以提升醫療照護品質，並提高使用者使用意願，養成定期運動、自我健康管理的良好習慣。

關鍵詞：三高疾病、運動強度、飲食控制、疾病控制

Abstract

Because of the rapid development of economy and the change of eating habits, the number in which people suffered from chronic diseases and overweight is increased. Proper exercise and diet control can effectively improve cardiopulmonary function and the control of blood sugar. In order to maintain good exercise habits and keep effective health management, many sports health management apps have been developed. However, most of existed apps are designed for general healthy people. The functions of these apps may not be suitable for the people who suffered from chronic diseases and overweight. This study aims to designed a dedicated sports health management application for users who have hypertension, hyperlipidemia and diabetes mellitus. The developed application allows user to record personal health data and choose a proper exercise intensity that suits to your physical condition.

Keywords: Chronic Diseases, Diet control, Sports health management apps

A148

利用 APP 結合 Drupal 報修平台以提昇資訊問題維修品質

Using APP to combine Drupal repair platform to improve the quality of online information problems

蔡明冀^a 蔡仲城^b 鄭秦佳^c 鄭建宏^d

^{ab} 高雄市立大同醫院 (委託財團法人私立高雄醫學大學經營) 資訊室

^c 高雄市立大同醫院(委託財團法人私立高雄醫學大學經營) 社區健康發展中心

^d 高雄市立小港醫院(委託財團法人私立高雄醫學大學經營) 資訊室

^amaxima.work@gmail.com

摘要

目前院內資訊報修機制的人機介面設計為資訊人員與使用者只能藉由電話或者報修系統進行交流，導致維修速度緩慢以及品質低落。若能即時得知待維修案件，將可有效提昇對醫療業務的協助。故規劃 APP 結合 Drupal 報修平台，同時導入響應式網頁(Responsive Web Design, RWD)以利於行動裝置檢視。

本專案採 PDCA 手法，針對 APP 結合 Drupal 報修平台按規劃、執行、查核與行動來進行，促使品質持續改善。敘述如下：

規劃(Plan)：依照現行線上報修問題規劃改善方案。

執行(Do)：執行開發 Drupal 報修平台與 APP。

查核(Check)：由使用者的反饋與實際狀況查核。

行動(Act)：視情況修改流程或系統，提昇效能。

之後重啟流程，改善不佳狀況以提昇報修機制的品質。

流程為使用者利用電腦或手機等設備連結至報修平台進行報修，資訊人員可在任何地點藉由 APP 得知維修案件，接著進行維修規劃以及回報。當維修完畢後同樣藉由 APP 回覆結果，接著由使用者確認功能已經回復正常，最後到報修平台進行結案，至此完成維修。

資訊人員以 APP 結合 drupal 網站，建置提供報修訊息之系統，經以口頭問卷訪談方式了解導入前後之維修品質，63%使用者對於報修平台操作的設計與維修品質提昇表示肯定，24%表示沒有特別感受。但因使用者仍習慣使用電話報修，應於後續進行教育訓練與說明會以提升使用率。

關鍵詞：報修，APP，Drupal，響應式網頁

A149

應用自建手機簡訊人機介面以提昇伺服器主機故障處理流程

Using self-development SMS man-machine interface to improve server fault handling process

蔡明冀^a 鄭建宏^b

^a 高雄市立大同醫院(委託財團法人私立高雄醫學大學經營)資訊室

^b 高雄市立小港醫院(委託財團法人私立高雄醫學大學經營)資訊室

^amaxima.work@gmail.com

摘要

醫療資訊系統悠關病人安全與民眾權益，故伺服器主機的故障快速通知與排除係為資訊人員的重要工作，然而多數設備僅能透過電子郵件通知異常，資訊人員需自行檢視才能知道狀態，對於處理的時效性造成延宕，同時引發就診民眾的等待與不悅。本專案考量現今手機或平板等行動裝置幾乎是人手一機，故自行規劃與開發人機介面，將伺服器主機寄出的電子郵件轉換為手機簡訊進行主動通知，以期在最快時間內即可通知相關人員。

人機介面規劃為設定伺服器主機將電子郵件寄送到自行架設的收信主機，該主機設定經常性的收取電子郵件，若收到則透過自行開發的中介程式轉換為簡訊，接著傳送給預設的收件者。藉此，無論是資訊人員或維護廠商，可以在任何地點迅速收到手機簡訊，進而提昇處理速度，並縮短對於醫療系統的影響時間。

本專案以低成本將電子郵件訊息轉換為手機簡訊，經由口頭問卷訪談以了解上線前後之維修品質，72%的資訊人員以及 84%的維護廠商對於訊息傳輸速度提昇表示肯定。對於後續的人機介面發展有下列二項想法：

1. 相關人員 24 小時均可收到簡訊，亦該考量人員休息時間不應受擾，需對設定做出修改。
2. 目前 line 通訊軟體廣泛受到使用，資訊人員將規劃採用 linebot 主動傳輸維修訊息，也可對應多平台。

關鍵詞：手機簡訊，主動通知，人機介面

A150

影響醫師健康之相關因素研究-以南投地區西醫診所為例

Factors Influencing Doctors' Health: A Case Study of Modern Medicine Clinics in Nantou

^a 葉季森 ^b 陳嫻英

^a 中臺科技大學醫療暨健康產業管理學系 副教授

^b 中臺科技大學醫療暨健康產業管理學系 學生

^b 陳嫻英 nicole920326@gmail.com

摘要

基層醫療診所醫師的健康問題，向來鮮少人關注。本研究以南投地區西醫診所醫師為研究對象，以家戶遞送問卷方式進行自填結構式問卷調查，了解基層西醫師的健康狀況及影響健康的相關因素。研究工具含：人口特質、職業特性、醫師工作壓力自評表(勞動部)、健康生活型態量表(魏米秀)、自述健康資料。初步回收有效問卷 98 份，以 SPSS 25.0 進行統計分析。醫師年齡平均 52.4 歲(31-72 歲)、男性 83.7%、已婚 85.7%、診所負責人 81.6%、內、家醫科最多(55.1%)。體位(BMI)正常 56.1%、過重及輕度肥胖 42.9%，58.3%至少有一項慢性疾病，高血壓(36.5%)、高血脂(19.8%)、糖尿病(12.5%)最常見。55.1% 自覺健康好和很好。58.2%沒有抽菸、23.5%沒有喝酒、19.4%沒有吃消夜習慣，30.9%沒有失眠困擾。工作壓力感受嚴重度(0 完全沒有-4 非常嚴重)前五項分別是：工作責任重(2.56)、健保規定影響專業服務(2.45)、醫療費用遭健保核刪(2.37)、病人對醫師期望過高(2.10)、工作上需要學習應用新醫療科技(1.98)。男醫師疲勞指數(個人疲勞、工作疲勞、服務對象疲勞)均顯著高於一般受雇者，女醫師則無此情形。影響自覺健康的因素為：年齡、慢性疾病有無、工作壓力嚴重度、個人疲勞指數、工作過度投入指數($F=16.7$, $P < .05$, $R^2 = 47.9\%$)。改善醫師之工作壓力源、降低個人疲勞及工作過度投入可提供西醫診所醫師身心健康照護之參考。

關鍵詞：西醫診所醫師、職場疲勞、工作壓力、健康促進生活型態

A151

運用統計方法分析 TCGA 資料庫以及自然語言處理方法辨識 PubMed 的文章來尋找具有研究潛勢的乳癌致癌或抑癌基因

陳疇丞^a和蘇致遠^b

^a嘉南藥理大學智慧健康產業技術研發與人才培育中心

^b嘉南藥理大學資訊管理系、智慧健康產業技術研發與人才培育中心

^anew.purple@msa.hinet.net

摘要

癌症基因圖譜計畫(TCGA)收集了 33 種癌症的基因次世代定序(NGS)資料及其對應的臨床資料，雖然截至 2020/5/28 在 PubMed 收錄有關 TCGA 的論文共有 9,028 篇，但使用關鍵字「TCGA」和「natural language processing」去查找 PubMed 資料庫只得到 11 篇論文，在這 11 篇論文中有五篇文章使用自然語言處理與資料探勘方法來查找 MicroRNA 的資料，只有一篇是使用自然語言處理以及資料探勘的方式來尋找有關肝癌的致癌與抑癌基因，但是此篇論文並沒有使用自然語言處理方法來判定文章中敘述基因在癌細胞是正向還是負向的角色，以及使用統計方法判定基因在癌症期程是正相關表現或負相關表現，並且經由兩種方法比對而得知還有哪些基因在乳癌扮演的角色具有被研究潛勢。在本研究論文中使用自然語言處理方法以及統計方法來篩選具有研究潛勢的乳癌致癌基因或抑癌基因，本論文的自然語言處理方法使用 StemTextSearch 的研究方法來辨識摘要中紀錄基因在乳癌扮演正向或負向的角色，並且使用 T 檢定、變異數分析以及存活率分析 TCGA 來判別基因在乳癌的期程是正相關或負相關表現，從兩種資料中比對並給予演算法判定研究潛勢分數，將上述資料建立資料庫以提供科學家進行更進一步的研究。**關鍵詞：乳癌、TCGA、PubMed、自然語言處理、統計分析**

A152

人格特質與就業選擇關係之研究—以某大學部學生為例

Research on the relationship between personality traits and employment choice

作者:^a 吳世望 ^b 張育璋 ^b 劉恩瑞 ^b 劉峻寧 ^b 張汶琪

^a 嘉南藥理大學醫務管理系

^b 嘉南藥理大學醫務管理系

zxi859@yahoo.com.tw

摘要

本研究主要探討十大人格特質與就業選擇，每年五月部分大學應屆畢業生開始積極投入職場找工作，面對各行各業的招聘廣告。全球年輕人的失業率居高不下，除了學用失衡及企業大量自動化的結果外，另一個現象是，面對高度競爭下的環境，企業選擇有經驗、能獨立作業的求職者，對於無工作經驗的新鮮人，除了基本的工作態度外，對於工作性質的瞭解，是找工作及規劃職涯的重要起點；尤其是人力網站的企業求才訊息中，只有簡單的公司介紹及需求人才的規格與條件，如果工作性質對於你的人格特質不合適，可能造成錯誤的認知及短期離職的現象。本研究以某大學科系學生，108 學年度第一學期日間部學生為研究對象共計回收 69 份，有效率達 98%。問卷調查結果以描述性統計與回歸線性統計進行處理。研究結果如下：工作性質是探索型以支配型較優其次為影響型的偏好工作類型、工作性質是社會型為影響型的偏好工作類型、工作性質是藝術型為影響型的偏好工作類型、工作性質是事業型以影響型較優其次為分析型的偏好工作類型、工作性質是常規型為影響型的偏好工作類型、工作性質是實際型，為支配型的偏好工作類型。

最後，本研究根據上述的結論，影響型的工作偏好較為廣泛，並提出針對應屆畢業生生涯輔導和諮商相關具體建議。

關鍵詞：人格特質、就業選擇、就業力

Abstract

This research mainly discusses the top ten personality traits and employment options. In May each year, some fresh graduates of colleges and universities begin to actively enter the workplace to find work, and face recruitment advertisements in all walks of life. The unemployment rate of young people in the world remains high. In addition to the imbalances in learning and a lot of automation of enterprises, another phenomenon is that in the face of a highly competitive environment, companies choose experienced and independent job seekers. Fresh people with experience, in addition to the basic work attitude, understanding the nature of the job is an important starting point for finding a job and planning a career; especially in the job search information of the manpower website, there is only a simple company introduction and the specifications of the talents required. And conditions, if the nature of the job is not suitable for your personality traits, it may cause false perceptions and short-term turnover. In this study, a total of 69 copies were collected from a university science department student and the day school students in the first semester of the 108 academic year, with an efficiency of 98%. The questionnaire survey results were processed with descriptive statistics and regression line surname statistics. The research results are as follows: the nature of work is an exploratory type, the dominant type is the dominant type, the impact type is the preferred type of work, the social type is the social type as the influence type, and the work type is the artistic type as the influence type. The nature is the career type, the influence type is better, the analysis type is the preferred work type, the work type is the conventional type and the influence type is the preferred work type, the work type is the actual type, and the dominant type is the preferred work type.

Finally, based on the above conclusions, this study has a wide range of influential work preferences, and puts forward specific suggestions for career guidance and consultation for fresh graduates.

Keywords: Personality traits, employment choices, employability

A153

醫療機構如何跨領域服務創新？以遠距健康照護服務設計為例

Interdisciplinary innovation of service design in healthcare institution: a case study on designing telehealthcare

郭彥宏^{a,*}、洪典澤^b、謝采伶^a

^a 嘉南藥理大學醫務管理系（所）

^b 亞洲大學附屬醫院醫療品質部

* phielk@gmail.com

摘要

遠距健康照護作為醫療照護創新發展趨勢，對病患而言仍是陌生而模糊的概念，因此發展病人有感服務，乃成為當前須解決問題。本研究以活動理論為指導架構，從社會文化角度檢視現行醫療機構在推動遠距健康照護服務歷程，並探索尋求創新的服務活動時所產生的衝突與價值。本研究以南部某醫學中心的遠距健康照護中心作為研究場域，研究對象為服務設計團隊與外部合作廠商等相關人員，於2017年07月至2018年5月對8位受訪者進行參與觀察與訪談。結果發現遠距健康照護服務服務設計活動的模式中，存在著導致在發展過程中出現問題之主要矛盾，包含(一)不同的使用者經驗及團隊認知；與(二)有問題的使用者服務設計流程。本研究提出以下建議，包括服務設計團隊合作共識、使用者評估及測試的一致性、服務設計流程的改善、彼此間專業知識的交流及跨領域協作的優化。

關鍵字：活動理論、服務設計、體驗設計、遠距健康照護

Abstract

Under the demand of health and social care, remote health care has become one of the key points for development. However, remote health care is still unfamiliar to patients, so how does the remote care service team Making patients easy to use and accept is a problem that must be solved at the time of promotion. This study examines the history of current medical institutions in promoting long-distance health care services from a sociocultural perspective, and explores the conflicts and values that arise in the face of innovative service activities as an analysis and improvement. The study applied ethnography and used the remote health care center of a medical center in the south as a research field. From July 2017 to May 2018, 8 interviewees were involved in observation and interviews. Using the activity theory system, the existing remote distance was discovered. In the model of health care service design activities, there are also major contradictions that lead to problems in the development process, including: (1) different user experience and team awareness, (2) problematic user service design process, And use the context to explore and explore the history of conflicts.

A154

Association of use of rehabilitation services with development of dementia among patients with rheumatoid arthritis: analysis of domestic data in Taiwan

Tzung-Yi Tsai^a, Ming-Chi Lu^b, Hanoch Livneh^c

^a Department of Medical Research, Dalin Tzuchi Hospital, The Buddhist Tzuchi Medical Foundation

^b Division of Allergy, Immunology and Rheumatology, Dalin Tzuchi Hospital, The Buddhist Tzuchi Medical Foundation

^c Rehabilitation Counseling Program, Portland State University

^adm732024@tzuchi.com.tw

Abstract

Objectives. Rheumatoid arthritis (RA) was found to trigger the higher risk of dementia. Limited information, however, is available on whether the use of rehabilitation services (RS), an integral part of healthcare programs, can lessen dementia risk for RA subjects. This retrospective cohort study aimed to determine the association of RS use with the development of dementia among them.

Methods. We identified 2,927 newly diagnosed patients with RA, 20-70 years of age between 1998 and 2007, from a national health insurance database. 965 patients from this sample received RS, and 1,962 patients were designated as a control group (non-RS users). Patients were followed to the end of 2012 to identify dementia incident as the end point. The adjusted hazard ratio (HR) for dementia with regard to RS use was estimated by the Cox proportional hazards regression model.

Results. During the study period, 388 patients with RS and 1,224 controls developed dementia, representing incidence rate of 75.46 and 115.42 per 1,000 person-years, respectively. After adjusting for potential confounders, RS was found to significantly reduce dementia risk, with the adjusted HR of 0.60 (95% confidence interval [CI]= 0.53-0.67). Those who used the high intensity of RS (≥ 15 courses) had the greatest benefit.

Conclusions. Integrating RS into the conventional treatment may reduce the sequent risk of dementia for RA patients.

Keywords: Rheumatoid arthritis, dementia, rehabilitation, risk, cohort study

A155

Acupuncture may reduce the risk of type 2 diabetes mellitus in patients with rheumatoid arthritis: a longitudinal study in Taiwan

Tzung-Yi Tsai ^a, Wei-Jen Chen ^b, Ming-Chi Lu ^c

^a Department of Medical Research, Dalin Tzuchi Hospital, The Buddhist Tzuchi Medical Foundation

^b Department of Chinese Medicine, Dalin Tzuchi Hospital, The Buddhist Tzuchi Medical Foundation

^c Division of Allergy, Immunology and Rheumatology, Dalin Tzuchi Hospital, The Buddhist Tzuchi Medical Foundation

^adm732024@tzuchi.com.tw

Abstract

Objectives Although acupuncture is often advocated for patients with rheumatoid arthritis (RA), its efficacy for type 2 diabetes mellitus (T2DM), a common metabolic disease among RA cohorts, has not yet been established. This retrospective cohort study aimed to determine the association of acupuncture treatment with the development of T2DM among RA patients.

Methods Between 1998 and 2007, we identified 4941 newly diagnosed patients with RA, 20 to 70 years of age, from a national health insurance database. A total of 2237 patients from this sample had received acupuncture, and 2704 patients who had not received acupuncture were designated as a control group. Patients were followed to the end of 2012 to identify T2DM incidence as the end point. The Cox proportional hazards regression model was further utilized to obtain the adjusted hazard ratio (HR) for acupuncture use.

Results: During the study period, 260 subjects who had used acupuncture and 564 controls developed T2DM, representing incidence rates of 18.00 and 24.50 per 1000 person-years (PYs), respectively. After adjusting for potential confounders, we observed that use of acupuncture significantly reduced T2DM risk, with the adjusted HR of 0.73 (95% confidence interval [CI] = 0.65-0.86). Those who used acupuncture more than 5 sessions had the greatest benefit in lowering the susceptibility of T2DM.

Conclusion Integrating acupuncture into conventional treatment for RA was found to be related to the lower risk of T2DM for RA patients.

Keywords: Rheumatoid arthritis, type 2 diabetes mellitus, acupuncture, risk

A156

Psychometric Evaluation of the Arthritis Self-Efficacy Scale in Chinese adults with rheumatic diseases

Tzung-Yi Tsai^a, Ming-Chi Lu^b, Hanoch Livneh^c

^a Department of Medical Research, Dalin Tzuchi Hospital, The Buddhist Tzuchi Medical Foundation

^b Division of Allergy, Immunology and Rheumatology, Dalin Tzuchi Hospital, The Buddhist Tzuchi Medical Foundation

^c Rehabilitation Counseling Program, Portland State University

^adm732024@tzuchi.com.tw

Abstract

Objectives: The Arthritis Self-Efficacy Scale (ASES) was designed to assess the degree of self-efficacy among arthritis patients. Though the original English version of this instrument has shown a high degree of reliability and validity, a Chinese version of this scale has yet to be validated. Therefore, the aim of this study was to evaluate the psychometric characteristics of the Chinese version of ASES (C-ASES) in a population of Chinese adults with rheumatic diseases (RDs).

Method: The scale was translated using backward translation. Validity and reliability were evaluated using 258 qualified participants with RDs by assessing content validity, concurrent validity, construct validity, internal consistency reliability and test-retest reliability.

Results: The C-ASES has demonstrated acceptable internal consistency and test-retest reliability, with a Cronbach alpha of 0.91 and intraclass correlation coefficient of 0.89, respectively. Concurrent validity was acceptable, with significant correlation between the subscales of the C-ASES and perceived depressive symptoms, as measured by the Taiwanese Depression Questionnaire ($p < 0.05$). The exploratory factor analysis revealed a three-factor solution (physical function, experienced pain, other symptoms) corresponding to the structure of the original instrument, which accounted for 59.78% of the total variance.

Conclusions: Empirical data support the assertion that C-ASES is a reliable and valid screening instrument to assess self-efficacy in Chinese-speaking patients with RDs. C-ASES may be useful as a reference guide in providing appropriate interventions for bolstering self-efficacy among Chinese-speaking patients with RDs.

Keywords: Self-efficacy, rheumatic diseases, Chinese, psychometrics

A157

從年輕族群的觀點建構年長者創新服務

Establish Innovative Services for the Elders from Younger Generation

連俊璋^a

^a 國立臺中科技大學資訊管理系

^a jwlian@nutc.edu.tw

摘要

本研究以服務設計中的雙鑽石模式(Double Diamond Model)基礎，透過探索、定義、發展、與提案四個階段，並以大學生與研究生為對象，透過課堂專題的方式，進行年長者創新服務構想提案，合計八十八人參與分組活動，並產出二十四項提案。提案內容主要區分為六大類，包括：人際社交、交通、知識管理、食、健康促進、與活動規劃。人際社交類主要包括家人互動 APP 與人際社交平台的建構；交通主要著眼於公車空位的管理；知識管理為最大宗，包括遊戲式學習、年長者講堂、技藝傳承、讀書會等；食的部分，則包括與年輕族群共煮與共食、與觀光客分享、寵物餐廳等；健康促進則提出了科技保健、老人健康中心等概念；最後，有關活動設計面向，包括年長者選秀、青銀共遊等。整體而言，透過本研究的進行，我們可以更了解在年輕族群的眼中，老的需求是什麼？有對的，有需要調整的，本研究的發現，可以做為未來教育上或實務上的參考。

關鍵詞：年長者, 創新服務, 年輕族群

Abstract

Based on the four steps (discover, define, develop, and deliver) double diamond model, this study proposes innovative services for the elders from the perspective of younger generation. The participants are undergraduate and graduate students. In the classes they took, they need to proposed innovative service proposals for elders as term project in groups. Finally, 88 students participated this study and proposed 24 novel services into six categories include interpersonal social interaction, transportation, knowledge management, eating, health promotion, and various activity plans. Based on the results of this study, we can learn more about the requirements of elders from the view of younger generation. Some of them are correct but others are not. These can serve as the reference for future education and practices.

Keywords: *elders, innovative service, younger generation*

A158

台灣南部年輕乳癌病人腫瘤性質及治療項目之探討

周宜錦^{a,b,*} 陳城霖^b

^a成大醫院 護理部 個案管理師

^b嘉南藥理大學醫務管理系(所)

一、目的：

根據衛福部 2018 年統計，台灣乳癌發生率為 10 萬分之 52.8，為女性癌症發生率第 1 位，高居亞洲第 2。發生高峰約在 45-69 歲之間，且年齡層持續有年輕化的趨化，台灣對於年輕乳癌族群之探討較少，因此本研究之目的即在想了解台灣南部 40 歲(含)以下年輕乳癌病人腫瘤性質及治療項目的現況。

二、方法：

本研究採橫斷式研究設計，以方便取向，於 106 年~109 年曾就醫某南部醫學中心確診罹患乳癌且年齡在 20-40 歲之病人為研究對象，設計並利用問卷與病歷回溯調查收集資料，進行問卷調查，收集人口統計、疾病特性及治療項目統計分析。研究最終收案人數為 180 人。

三、結果：

本研究 180 位年輕乳癌病人的平均罹癌年紀為 36 歲，研究對象大多為高知識分子，大學(含)以上學歷佔 71.7% 且皆 7 成為已婚女性。於腫瘤性質分析方面，以乳癌分期為第二期病人 78 人(43.3%) 佔比最多，第一期病人 43 人(23.9%)，原位癌 28 人(15.6%)，第三期 25 人(13.9%)，第 4 期 6 人(3.3%) 則為數最少。治療項目分析方面，發現 180 位病人皆有進行腫瘤控制治療，但有 2 位病人未接受手術治療，而在 178 位接受手術治療之病人中，分別包含全切除及淋巴根除性手術之病人有 108 人，重建之病人有 40 人，部分乳房切除之病人有 30 人。在全數病人中有 148 人接受化療治療(佔 82.2%)，有 130 人接受放射線治療(佔 72.2%)，有 139 人接受賀爾蒙治療(佔 77.2%)，有 67 人接受標靶治療(佔 37.2%)。

四、結論：

本研究顯示南部年輕乳癌病人之腫瘤性質大多介於第一至二期，且病人多以選擇全乳房切除手術治療較多。推論南部年輕乳癌病人對於自我生命風險上之選擇大過於外觀身體心像改變的考量。因此，在相對擔憂未來是否有較高不安全性發生心境下，於選擇治療項目的比較上則大多採予保守性治療為主。

關鍵詞：乳癌、年輕乳癌病人、腫瘤性質、治療方式。

A159

多元教學策略運用提升護理人員進階之成效

徐華吟^a，洪秋霞^b

^a台南市立醫院(委託秀傳醫療社團法人經營)護理部

^b台南市立醫院(委託秀傳醫療社團法人經營)護理部

^a2u0080@tmh.org.tw

摘要

【目的】能力進階制度是有系統且有計劃的教育訓練護理人員過程，使其由生手、進階學習、適任、熟練、到專家，每一階段都表現出特定專業技能，過程中需不斷接受教育及訓練課程以獲得經驗及能力。【方法】推行多元教學之策略包含：一、床邊教學：藉由臨床討論、查閱病歷與實地訪查提升下列能力：1.落實各種護理常規及技術標準。2.因應病情提供適當照護。3.持續觀察病情給予正確判斷並有因應。4.批判性思考能力。二、共學輔導員機制：透過單位主管與臨床教師擔任輔導員，協助安排與追蹤在職教育完成度，並教導實證或案例書寫，並建立良好的支持關係，成為能否突破寫作困難的關鍵。三、辦理進階課程：推動團隊導向學習法於互動教學中促使主動學習文獻查證與閱讀及實務操作，舉辦案例研討教導照護問題分析與處理。四、營造幸福職場：每月舉辦活動凝聚職場氛圍，經由座談關懷了解壓力，提升正向學習環境。【結果】108年經由多元策略實施後，護理人員:N-N1進階通過率由55.6%提升至71.2%；N1-N2進階通過率由29.3%提升至37.8%。此外，在722場床邊教學以焦點護理、護理常規、技術標準為主要指導內容，各佔19.9%、18.3%與17.0%，藉由臨床討論與實地訪查，提升護理人員護理過程執行能力。【結論】能力進階最終的目的在提升護理人員臨床工作能力及照護品質，並肯定其臨床表現，進而達到內外顧客滿意。

關鍵詞：多元教學策略、護理人員、能力進階

A160

應用醫護類數位教材於提升學習成效-以藥理學為例

Applying healthcare e-learning materials to improve learning effectiveness-using pharmacology as an example

陳秋蘭^a 盛夢徽^b 蘇致遠^b

^a嘉南藥理大學藥學系

^b嘉南藥理大學資訊管理系

^abetclan@mail.cnu.edu.tw

摘要

前言：藥理學的課程內容主要在介紹各種藥物的動力學、作用機轉、副作用與臨床應用等，由於藥物與疾病種類繁多，學習者需要花費許多的時間與精神才能了解、熟記並加以應用此課程之內容。而數位學習教材可提供學習者做為課前預習及課後複習使用，且可重複聽讀來不及消化的課程內容，有助於學習者打下良好的基礎。但任何人都會有惰性，學習者也不例外，因此需要錄製能吸引學習者維持學習動機的教材，再加上教師時時的督促，才能使學習者有所收穫。**研究方法：**本文中，教師所製作之簡報檔教材內容非常多，中英文夾雜，看起來非常不符合簡報製作的原則，但對學習者而言，能夠了解課程內容，才能夠維持學習動機，特別是對有許多醫學專有名詞及藥名，且是藥師國考科目的藥理學而言更是如此。因此教師將內容繁多的簡報檔再詳細解說錄製成語音檔之線上非同步教材，學習者可以比較容易了解這些艱深的醫學專有名詞，若聽不懂，還可重複聽讀，若覺得教師講解時間太久，還有調整聲音速度的按鈕可調快速度，這些小細節都有助於維持學習者的學習動機。此外，數位課程的整個學習路徑以不同顏色來作區別，而在教學內容的教材畫面中，不同顏色的字也代表不同的涵義，除了具體呈現出該課程所應知道的課程內容與課程相關資訊外，整個課程網頁的畫面也非常色彩美觀與整齊劃一，更能提高學習者在觀看學習時的心情與意願並維持學習動機。**結果與討論：**教師將藥理學數位教材放置於嘉藥網路大學平台中，分析學生的線上閱讀時數、閱讀頁數、以及學業成績之間的相關性，可看出高於平均分數的族群，線上閱讀時數及閱讀頁數明顯高於低於平均分數的族群，由此結果可知數位教材確實可以提升學生的學習成效。

關鍵詞：數位教材、藥理學、學習動機、學習成效

A161

自動驗證錯誤因素之影響性研究

Influence of Error Factors on Autoverification

鄭鴻榕^a

^a義守大學醫務管理學系碩士在職專班

^asadel1981@yahoo.com.tw

摘要

依健保署統計之全民健保醫療費用申報狀況，全民使用健保點數自 99 年的 487,630 百萬點成長到 108 年的 773,103 百萬點，成長約 60%，另國內的評鑑，以及諸多品質指標的推廣，顯示臨床上除了需應付醫療服務量的成長，更須兼顧醫療品質的水準，而檢驗科為兼顧兩者的成長，在原有實驗室資訊系統(Laboratory Information System, LIS)的架構上發展了自動驗證(Autoverification, AV)，使 LIS 系統自動依循各種檢驗數據間的規則，將正常或符合預期變化的檢驗數據製作成報告自動發給醫療需求者，然而，許多研究表明，檢驗前、中、後階段所產生的錯誤，會影響檢驗數據準確性並造成報告延遲，且國際也未有規範詳述討論驗證準確性的標準流程，因此，本文將以回顧性研究分析南部某區域醫院 107~108 年的自動驗證資料庫，將 7598891 次檢驗項目通過 23 條驗證規則與手工驗證，以次數分配及根因樹等品管手法分析錯誤因子族群及成因，並以統計學進行自動驗證率、錯誤率、報告時間(TAT)進行比較，以提供在維持檢驗品質下調整自動驗證規則及全職工作當量(WTE)的依據。

關鍵詞：實驗室資訊系統、自動驗證、報告時間

A162

應用擴增實境技術提升學童環保知識之成效探討

The effect of applying the technology of augmented reality on improving students' knowledge of environment protection

劉孟勳^a 翁富美^{a*} 林俊昱^b

^a 吳鳳科技大學應用數位媒體系

^b 吳鳳科技大學消防系

zxc757767@gmail.com

摘要

生活中的食、衣、住、行、育、樂往往會產生出各式各樣的垃圾，而這些垃圾對於地球是有依定程度上的傷害，而為了降低對於地球的傷害，具備分類知識是必要的，而在學童時期的學生，往往對於垃圾的分類認知並沒有非常的了解，而造成會有許多垃圾誤丟的情況，而丟錯的垃圾往往卻是將資源給浪費掉或者將造成環境更加嚴重的傷害，因此了避免學童將垃圾給丟錯造成無法回收的窘境，為此需要提高學童對於垃圾分類的認知，本研究的目的是應用 AR 技術，結合生活中的垃圾分類，來製作出一個擴增實境的遊戲，並探討出學童對於垃圾分類的認知是否有所提升，在提升的同時希望能對地球的未來環境更加的貢獻出一點心力。

關鍵詞：AR、垃圾分類、ARCS

Abstract

Food, clothing, housing, transportation, education, and happiness in life often produce a variety of garbage, and these garbage have a certain degree of harm to the earth, and in order to reduce the harm to the earth, have the knowledge of classification. Importantly, the students have lack of the knowledgs about the classification of trash. It causes that students throw the trash, which can be recycled, in wrong trach can. This kind of impropriate behaviors, which the students have, harms our environments. Evenly, it cause that some trash, which can be recycled, cannot be recycled. In order to improve school children's awareness of garbage classification, the purpose of the research that the schoolchildren's awareness of garbage classification could be enhanced through a game of augmented reality. Through the reseach, the environment in the future could be improved.

Keywords: AR, garbage classification, ARCS

A163

軟體定義網路上的攻擊與防護之研析

Attack and Protection on SDN: A Survey

王成允^a 劉奕賢^b 劉川綱^c 李竹芬^d 李忠憲^e
^{abc} 國立成功大學 電機工程學系/電腦與通信工程研究所
^c 嘉南藥理大學 資訊多媒體應用系
^d 國立虎尾科技大學 財務金融系
^e jsli@mail.ncku.edu.tw

摘要

最近幾年，互聯網導致了一個數字社會的創建，所有事物都可以連接並且可以從任何地方訪問。雖然它們已經被廣泛的使用，但是傳統的 IP 網路十分複雜，難以管理。軟體定義網路 (Software defined networking, SDN) 是一種新興且有前途的網路體系結構。同時，SDN 必將成為網路攻擊者的目標。SDN 的用途十分廣泛又方便管理，但是在如此方便的情形下也意味著有著眾多安全隱憂的問題。本文將重點介紹 SDN 上各種攻擊以及漏洞，並進一步探討如何防護，讓其他研究者能對 SDN 有一定程度的了解。

關鍵詞： 軟體定義網路、網路安全、阻斷服務攻擊

Abstract

In recent years, the Internet has led to the creation of digital societies where everything can be connected and accessed from anywhere. Although they have been widely used, traditional IP networks are very complex and difficult to manage. Software defined networking (SDN) is a novel and promising network architecture. At the same time, SDN will surely become the target of cyber attackers. The use of SDN is very wide and convenient to manage, but in such a convenient situation, it also means that there are many security concerns. In this research, we will introduce various attacks and vulnerabilities on SDN, and discuss how to protect, so that other researchers can have a certain degree of understanding of SDN.

Keywords:. Software defined networking, SDN, Network Security, OpenFlow, DoS attack

A164

尿囊素之生物可利用性評估

Bioavailability of Allantoin

陳敏茹^a 林為森^b

^a 嘉南藥理大學醫務管理系暨碩士班

^b 嘉南藥理大學老人服務事業管理系

^a1661mp@gmail.com

摘要

背景：尿囊素是一種存在於甜菜、小麥芽、山藥等天然植物的物質，具促進細胞增殖、傷口癒合、增加細胞內水含量及抗發炎等作用，主要被廣泛運用於化妝品中，但是生物體對尿囊素的實際利用率及藥物動力學變化卻鮮少被了解，因此本試驗以動物模式探討尿囊素於生物體中之可利用性。

目的：利用動物模式評估尿囊素於生物體內的藥物動力學參數及生物可利用性。

方法：實驗以 Sprague-Dawley rats (SD rats, 八週齡, 體重 250 g) 為模式，將 allantoin 溶解於生理食鹽水，並以口服 (劑量: 50 mg/kg) 及靜脈注射 (劑量: 5 mg/kg) 兩種途徑給予動物並探討血液中 allantoin 濃度與時間變化之關係，藉此評估 allantoin 之口服生物可利用率。

結果：口服組 allantoin 於血液中的最大濃度(maximum concentration, C_{max})為 $8.24 \pm 2.51 \mu\text{g/mL}$ 、總吸收量(area under curve, AUC)為 $189.01 \pm 70.94 \text{ min} \cdot \mu\text{g/mL}$ 、達到最大濃度所需的時間(time of maximum concentration, T_{max})為 $20.54 \pm 2.05 \text{ min}$ 、半衰期($T_{1/2}$)為 $35.60 \pm 12.16 \text{ min}$ 。靜脈注射組血液中的 C_{max} 為 $4.31 \pm 1.03 \mu\text{g/mL}$ 、AUC 為 25.18 ± 13.64 、半衰期為 $9.35 \pm 3.65 \text{ min}$ ，口服生物可利用率為 2.07%。

結論：餵食 50 mg/kg 尿囊素後約 20.54 分鐘於血漿中達到最大值 $8.24 \mu\text{g/mL}$ ，口服生物可利用率為 2.07%，絕對生物可利用率為 62.77%。

關鍵詞： 尿囊素、生物利用、藥物動力

Abstract

Background: Allantoin is a substance found in natural plants such as sugar beet, wheat sprouts, and yam. It has the effects of promoting cell proliferation, wound healing, increasing intracellular water content, and anti-inflammatory. It is mainly used in cosmetics, but biological The actual utilization of allantoin and the pharmacokinetic changes of the body are rarely understood, so this experiment explores the availability of allantoin in organisms in an animal model.

Objective: To evaluate the pharmacokinetic parameters and bioavailability of allantoin in vivo using animal models.

Method: The experiment was based on Sprague-Dawley rats (SD rats, eight weeks old. Body weight 250 g). Allantoin was dissolved in normal saline and taken orally (dose: 50 mg / kg) and intravenously (dose: 5 mg / kg) Two ways to give animals and explore the relationship between the concentration of allantoin in the blood and the time, to evaluate the oral bioavailability of allantoin.

Results: The maximum concentration (C_{max}) of allantoin in the oral group was $8.24 \pm 2.51 \mu\text{g} / \text{mL}$, and the area under curve (AUC) was $189.01 \pm 70.94 \text{ min} \cdot \mu\text{g} / \text{mL}$, which was required to reach the maximum concentration. The time of maximum concentration (T_{max}) is $20.54 \pm 2.05 \text{ min}$, and the half-life ($T_{1/2}$) is $35.60 \pm 12.16 \text{ min}$. In the intravenous injection group, C_{max} in the blood was $4.31 \pm 1.03 \mu\text{g} / \text{mL}$, AUC was 25.18 ± 13.64 , half-life was $9.35 \pm 3.65 \text{ min}$, and oral bioavailability was 2.07%.

Conclusion: The maximum value of $8.24 \mu\text{g} / \text{mL}$ in plasma was reached in 20.54 minutes after feeding 50 mg / kg allantoin, and the oral bioavailability was 2.07%.

Keywords: allantoin, bioavailability, pharmacodynamics

A165

以深度學習增進情感分析為基礎之行動個人化情緒照護

Mobile Personalized Emotional Care based on Deep Learning to Enhance Sentiment Analysis

王淑玲 林靖雅

國立臺中科技大學 資訊管理學系

shulin@nutc.edu.tw

摘要

全球性疫情對醫療系統及經濟都造成了嚴重的影響，經過調查發現在疾病盛行期間，人們除了生理方面受影響，心理層面受到的影響也不容忽視，且隨著疫情預防措施在衛生保健機構中的發展，必須考慮潛在精神衛生危機的個人之心理健康照護，本研究運用行動心智健康照護系統幫助使用者做好個人化情緒照護，運用深度學習、情感分析技術發展互動式的個人化情緒照護功能。本系統之目標在輔助使用者日常自我情緒管理照護。因此，本系統依據認知行為治療(CBT)架構，建立個人情緒歷程記錄功能。系統的記錄資訊與分析結果可作為使用者進一步接受心理諮商或治療之參考資訊。整體而言，本系統將有助於增進個人日常自我情緒管理照護效能。

關鍵詞：情感分析、深度學習、認知行為治療(CBT)、行動心智健康照護

Abstract

Global epidemic has caused serious impact on the medical system and economy, after the investigation found that during the prevalence of disease, people in addition to the physiological impact, psychological influence also can not be ignored. Especially, the development of epidemic prevention measures in health care institutions should put in the development of potential mental health care for residents. Therefore, this study applies the Mobile mental health care system to help users for personalized emotional care, the mobile emotional care system integrates deep learning, sentiment analysis technology to develop interactive personalized emotional care function. The goal of this system is to assist the user's daily self-emotional preventive care. Therefore, the system establishes a personal emotional profile record function based on the Cognitive Behavioral Therapy (CBT) architecture. The system's record information and analysis results can be used as reference information for further psychological counseling or treatment. Overall, the system will improve the effectiveness of personal self-emotional preventive care.

Keywords: Sentiment Analysis、Deep Learning、Cognitive Behavioral Therapy、Mobile healthcare、Self-emotional Preventive Care

A166

系統性文獻回顧探討醫院快速反應團隊配合早期警示評分

Rapid Response Team with Modified Early Warning Score in Hospital :

A Systematic Review

陳思伶^a 陳俞成^b

^a 嘉南藥理大學醫務管理系暨碩士班 研究生

^b 嘉南藥理大學醫務管理系暨碩士班 副教授

^a cclinewawa0115@gmail.com

摘要

病情的惡化並不是一朝一夕突然發生的，常常是一個隨時間演進的過程。在有限的時間內，使用快速反應團隊、早期警示系統，忠實地系統化呈現數據反應，配合資深團隊人員的現場判斷，能有效減少急救事件發生及改善病人預後。除針對病人病情的初步預估及持續性監測住院病人健康狀況，也可預測急重症病人的死亡率。對於醫護人員能大幅節省時間查看病人情況，並能以數據有效呈現。本研究目的為一、以系統性文獻回顧之實證模式，探討醫院內快速反應團隊配合早期警示評分系統措施；二、探討醫院內快速反應團隊配合早期警示評分系統成效。本研究採用系統性文獻回顧法，收錄發表於 PubMed、EBSCOHOST(Academic Search Complete, CINAHL Complete, CINAHL Plus with Full Text, MEDLINE)等資料庫的實證文獻，設立文章搜尋之關鍵字與同義字為 Early Warning Score、Modified Early Warning Score、Rapid Response Team、Medical Emergency Team，發布時間以 2016 年 5 月到 2020 年 5 月，應用納入標準及排除條件，逐一閱讀題目及摘要，過濾符合之文獻後，共搜尋出 6732 篇文獻，將符合主題之文章以喬安納布里格斯學會(Joanna Briggs Institute)出版的評讀工具進行評析文獻品質。

關鍵詞：快速反應團隊、早期警示評分、系統性文獻回顧

Abstract

The deterioration of the disease does not happen overnight, instead it is often a process of evolution over time. In a limited time of the use of the rapid response team, the Early Warning System, the system presents a faithful data response, with senior team members on-site judgment, and can effectively reduce the incidence of first aid incidents and improve patient prognosis. In addition to the initial assessment of the patient's condition and continuous monitoring of in-patient health status, the mortality of acute and severe patients can also be predicted. For health care workers can greatly save time to see the patient situation, and can be effectively presented with data. The purpose of this study is to explore the effect of the Modified Early Warning Score and the rapid response team in hospital by a systematic review of the literature. In this study, we used the systematic literature review to collect the empirical literatures published in PubMed, EBSCOHOST(Academic Search Complete, CINAHL Complete, CINAHL Plus with Full Text, MEDLINE). The keywords and synonyms of the articles were Early Warning Score, Modified Early Warning Score, Rapid Response Team, and Medical Emergency Team, published from May 2016 to May 2020, the inclusion criteria and exclusion criteria were used to read the titles and abstracts one by one. A total of 6,732 articles were found after searching the name of a river-compliant literature, the quality of the literatures is assessed using a reader tool published by the Joanna Briggs Institute that corresponds to the topic of the article.

Keywords: Rapid Response Team, Modified Early Warning Score, Systematic Review

A167

資訊防疫 - 醫院防疫守門員

蘇鴻儒^a、郭淑文^a、郭乃華^a、洪麗雯^a、莊仙妃^a
高雄醫學大學附設中和紀念醫院資訊室^a

^a 郭淑文 ant@ms.kmuh.org.tw

摘要

[目的]

根據疾病管制署公告醫療機構因應 COVID-19 感染管制措施指引，首要應規劃病人分流避免候診區擁擠情形出現，落實適當的病人安置、工作人員體溫監測與健康管理機制、感染管制訓練與最新訊息宣導等行政策略。為避免高風險個案進入醫院未事先採取適當防護措施，讓第一關人員可快速得到所需資訊進行病人分流為主要任務目標。

[方法] 建置防疫守門員系統

1. 系統帳號權限管控
2. 健保卡讀取，整合健保「特定地區旅遊及接觸史提示功能」Web service 介接及來院者院內資訊(如：掛號、陪病、外包等)，進一步確認來院目的(如：門診、住院、檢查、領藥..等)。
3. 智能輔助簡化流程：來院時間、目的、TOCC、分流指引、14天、顏色提醒紀錄等。

[結果]

1. 依疫情管制策略系統快速調整，除提供人力彈性參考外並累計阻擋約8000位不需進入醫院者。
2. 減少來院等待時間：上線前約2分/人(含TOCC確認)，上線後僅需15秒，下降率達87.5%。
3. 智慧判讀來院目的，減少手動操作。

[結論]

整合健保雲端旅遊接觸史及就診資訊，並由系統提供標準化 TOCC 詢問準則、分流指引、顏色提醒等標準，判斷是否可進入院區或需戶外門診急診等分流措施，達到資訊防疫守護醫院把關目標，實為防疫最佳守門員。

關鍵詞：COVID-19、TOCC、健保雲端旅遊史、防疫篩檢

A168

探討推動社區中高齡者手機學習之成效

Paper Format for International Conference on Healthcare Information Management

鄭秦佳^a 蔡明冀^b

^a 高雄市立大同醫院(委託財團法人私立高雄醫學大學經營) 社區健康發展中心

^b 高雄市立大同醫院(委託財團法人私立高雄醫學大學經營) 資訊室

^acyhnblan209@yahoo.com.tw

摘要

背景：隨著科技進步，透過媒體傳達各類的資訊，而智慧型手機的發展使 QR-code 的運用也越來越廣泛，不論在加好友、問卷調查、訊息連結等。有研究顯示以 40 歲以上民眾從未使用過的 QR-code 比例最高。而高雄市某社區高齡者達 22%，為超高齡社會，如何讓高齡者能透過智慧型手機獲得資訊更是一大考驗。為提升高齡者使用 QR-code 獲得健康資訊，透過辦理手機課程，因此本研究目的主要探討民眾在接受智慧型手機課程後，手機使用情形與學習成效。研究方法：以 108 年曾參與為期 4 個月的社區手機課程之學員為對象，於課程前、後，以問卷進行調查，內容包含基本資料、上網情形、課後 app 使用情形、課程學習成效評值等。研究結果顯示以女性較多，佔 20%，年齡中以 65~69 歲居多，有 44%，在前測發現，有 81% 的學員會使用手機上網，最常使用的功能為 line 與拍照。所有學員皆曾經參加過相關的手機課程。課程前評估民眾對於手機功能之認知程度，平均答對率為 74.8%，課後為 88.3%。87% 民眾在課程後會使用 QR-code 掃描各種連結，82.6% 民眾表示會使用 QR-code 報名課程。結論：透過手機課程教學能提升民眾對於手機功能的認知程度，而提升民眾使用 QR-code 的能力，對於課程報名、訊息獲得將能提升參與率，未來將進一步評估民眾透過 QR-code 獲得訊息之相關性與成效。

關鍵詞：中高齡者、智慧型手機、QR-code

A169

運用智慧結構化設計提升病歷標準化完整性

陳英嵐^a、郭淑文^a、張瑛真^a、蔡明儒^b、莊仙妃^a、郭耀仁^c

高雄醫學大學附設中和紀念醫院 資訊室^a

高雄醫學大學附設中和紀念醫院 院長室^b

高雄醫學大學附設中和紀念醫院 外科部^c

^a 郭淑文 ant@ms.kmuh.org.tw

摘要

[目的]

病歷記錄著病人健康狀況的時間、地點、變化、原因與診斷處置方式，包括病人所有病情與變化、檢查（驗）結果、診斷、治療、護理等相關的各種資訊，它對病人、醫護人員、醫療機構、保險單位以及司法檢察等單位等扮演非常重要角色。清晰、詳實、完整之病歷有助於醫院醫療品質的提升，本案以門診病人身體檢查評估做為首次推動里程碑。

[方法]

4. 成立專案小組。
5. 擬定門診病人初診複診結構式評估項目，並可專科化。
6. 資訊系統設計及階段性上線推動。

[結果]

4. 建立病人身體評估項目標準：訂定目標90%，實際完成100%，並於病歷管理委員會通過。
5. 完成門診各臨床科病人身體評估項目系統上線 100%。
6. 智慧動態結構化設計：可快速以設定方式修改項目、可專科化設定、具檢核功能、提供預設值功能、快選模式等提升病歷完整性。

[結論]

系統重新設計，將原為空白病歷改為彈性結構化設計，達到資料可再利用，讓儲存的資料做為大數據分析，提供有效的資料做為 AI 預測運用，透過資訊為未來醫療盡一份心力。

關鍵詞：結構化、表單設計、大數據

探討中年工作者對於退休後的生涯規劃

Discussing of middle-aged workers for the retirement career planning

游卉君^a 賴柔秀^a 林翊婷^a 張碩芳^b

^a 嘉南藥理大學醫務管理系暨碩士班研究生

^b 嘉南藥理大學醫務管理系副教授

^aa0912750471@gmail.com

摘要

目的：退休意味著人生軌道的轉換，勞基法規定當勞工年滿 65 歲、工作 10 年以上滿 60 歲、工作 15 年以上滿 55 歲或工作 25 年以上，即達退休年齡。在中年時就應開始規劃以銜接退休的生活。本研究是探討中年工作者對自己退休生活的規劃方向。

方法：採橫斷面研究，樣本為便利取樣，以個別訪談法，訪談五名中年工作者對退休的生涯規劃，訪談地點為家中與工作場所，訪談內容包含生涯規劃的面向、為退休所做的準備等。訪談後，將觀察、訪談所得資料整理成逐字稿，再針對逐字稿的描述以紮根理論進行三階段開放性、主軸性、選擇性的譯碼，將逐字稿整理成語幹進行編碼，再把語幹歸納出類別，最後再統整成主題。

結果：本研究結果依訪談內容將受訪者的退休規劃分為夢想、服務、社交、興趣、財務、家庭、學習、身體照顧，共八個面向，其中財務、社會服務與終身學習為中年工作者退休後的考量重點。

結論：中年工作者在退休後期望各面向能不受現實的限制，並且有能力安排生活直到終老，在職時即為自己的生涯規劃找尋資源做準備。本研究結果希望可作為個人退休規劃和政府提供社會資源的參考。

關鍵詞：中年工作者、退休、生涯規劃

Abstract

Objective: Retirement means the change of life. The Labor Law stipulates that when a worker reaches 65 years of age, works over 10 years to reach 60 years of age, works over 15 years to reach 55 years of age, or works over 25 years, the retirement age is reached. In middle age, should be start planning to connect the retirement life. This study is to explore the direction of middle-aged workers planning own retirement life.

Methods: A cross-sectional study was conducted. The sample has use for convenient sampling. To Interview five middle-aged workers for their retirement career planning. The interviews are conducted at home and in the workplace. The content of the interview includes the orientation of career planning and preparation for retirement. After the interview, the observation and interview data are organized into verbatim drafts. Then, the three-phase open coding, axial coding and selective coding of the verbatim drafts is based on grounded theory. And the verbatim drafts are organized into stems for coding. Then summarize the words into categories, and finally integrate them into themes.

Results: The results of this study into eight aspects divide the interview of retirement planning into dream, service, social, interest, finance, family, learning, and physical care according to the content of the interview. Among them, the key considerations retirement life of middle-aged workers are finance, social services and life-long learning.

Conclusion: After retirement, middle-aged workers expect that all aspects will not be restricted by reality, and have the ability to arrange life until they are old. Ready to find out the resources for life-planning when during the job. The results of this study are expected for individual retirement planning and the government to provid social resources.

Keywords: Middle-aged Worker, Retirement, Career Planning

A171

探討民眾對智慧醫院就醫之行為意圖：延伸計畫行為理論之觀點

An Empirical Investigation of Citizens' Behavioral Intention for Smart Hospital: An Extension of Theory of Planned Behavior.

謝碧容 劉芝呈 陳水錦^a

嘉南藥理大學醫務管理系

^ab0505106@gm.cnu.edu.tw

摘要

隨著醫療科技進步，從全球環境、醫院需求、政策方向、產業經驗等面向，在醫療環境的變遷與法規改變，為提升醫療品質與病人安全，智慧醫療已成為必然的發展趨勢。但回顧過去研究主要探討智慧醫院對醫療安全的監測以及資訊安全程度之研究等，缺乏解釋民眾對智慧醫院就醫之行為意圖。有鑑於此，本研究目的在於瞭解民眾到智慧醫院就醫的行為意圖，進而瞭解哪些因素會影響行為意圖。本研究整合計畫行為理論、知覺風險以及健康識能，探討民眾到智慧醫院就醫的行為意圖。因此，本研究採用問卷調查法，針對 20 歲以上的民眾為研究對象，進行問卷調查，回收有效樣本 218 份，回收率為 87.2%。研究結果：態度、主觀規範、知覺行為控制以及健康識能對行為意圖有正向顯著影響。綜言之，本研究結果可提供學術與實務界參考或運用。因此，期望本研究成果能作為政府相關單位、科技業者以及醫院管理者對醫院未來方向的需求預測作為重要參考依據。

關鍵字：智慧醫院、計畫行為理論、知覺風險、健康識能

Abstract

With the advancement of medical technology, the aspects of global environment, hospital demand, policy direction, industrial experience, and regulations, in order to improve quality of care and patient safety, smart medical care has become an inevitable development trend. Prior studies have focused on which factors impact Smart hospital's monitoring of medical safety and Information security level etc. However, these studies have concentrated on the impact of technology or health care utilization aspects, and therefore are insufficient for fully explaining people go to Smart Hospital sharing behaviors. This study develops an integrated theory of planned behavior, perceived risk, and health literacy to explain people go to Smart Hospital. This theoretical model was empirically validated via survey data from Taiwanese citizens of at least 20 years of age. The results also indicated that attitude, subjective norm, perceived behavioral control, and health literacy have positive effect on intention to use. In summary, the results of this study can practical and provide to reference or application for academic. The results of this study provide useful insights that can not only help hospital managers choose an appropriate promotion strategy but also enables technologist and government agencies to hospital demand forecast as an important reference for the future.

A172

提升主要照顧者鼻胃管照護技能之衛教方案

The health education Program to improve the care skills of Nasogastric-tube care of the main caregivers

游卉君^a 陳美芳^b^a 嘉南藥理大學醫務管理系暨碩士班研究生^b 國立臺南護理專科學校護理系教授^aa0912750471@gmail.com

摘要

目的：在耳鼻喉科單位中，約4成的主要照顧者需學習返家後鼻胃管的照護技巧。臨床因假人模型價格昂貴，主要衛教為護理師直接於個案身上示範鼻胃管灌食及清潔等技巧，然而，主要照顧者要面臨「直接」執行在自己家人的壓力，且練習機會不多，故在出院前要熟練鼻胃管照護是件困難的事。鼻胃管照護執行不當會造成患者噎咳、管路滑脫或阻塞等問題而影響身心不適。本專案以 Ruduse、Recycle、Reuse 環保概念，發展「新型不 NG 模具」方案，以提升主要照顧者的鼻胃管照護技能與滿意度。

方法：採單組前後測設計，針對返家後需留置鼻胃管患者，給予「新型不 NG 模具」方案，包括(1)具體了解鼻、食道、胃的解剖位置；(2)模型微笑表情與髮型設計：緩和緊張害怕的心情。(3)由模具進行清潔、固定與灌食衛教，並提供模具供練習；(4)由模具抽出 coffee ground 與 blood，具體了解腸胃道出血狀況；(5)模具衣服內放置衛教單張，讓其有參考依據。於返家前一天，訪問並觀察照護技能與滿意度。

結果：10位主要照顧者表示鼻胃管實務知識增進、清潔、固定與灌食技能熟練、整體滿意度與自信心增加。

結論：本專案可提升主要照顧者在鼻胃管的知識技能與滿意度並進一步增加個案生理舒適與安全，其可供醫護人員在衛教上之參考。

關鍵詞：鼻胃管、管路滑脫

Abstract

Objective: In the ENT unit, about 40% of the primary caregivers need to learn the nursing skills of the nasogastric tube after returning home. Due to the high price of the dummy model in clinical practice, the main health education is to demonstrate the skills of nasogastric tube feeding and cleaning directly on the case for the nurse. However, the primary caregivers have to face the pressure of "direct" execution in their own family, and there are not many opportunities for practice, so it is difficult to be skilled in nasogastric tube care before discharge. Improper care of the nasogastric tube can cause problems such as choking, slipping, or blockage of the patient's body and affect physical and mental discomfort. This project uses Ruduse, Recycle, and Reuse environmental protection concepts to develop a "new non-NG mold" program to enhance the caregiver's skills and satisfaction in nasogastric tube care for primary caregivers.

Methods: The single-group pre- and post-test design is adopted. For patients who need to have a nasogastric tube after returning home, a "new non-NG mold" solution is given, including (1) specific understanding of the anatomical position of the nose, esophagus, and stomach; (2) model smile expression and hairstyle Design: ease tension and fear. (3) The mold is used for cleaning, fixing and feeding health education, and the mold is provided for practice; (4) The coffee ground and blood are extracted from the mold to understand the gastrointestinal bleeding situation; (5) The health education leaflet is placed in the mold clothes So that it has a basis for reference. On the day before returning home, visit and observe care skills and satisfaction.

Results: The 10 main caregivers indicated that the knowledge of nasogastric tube practice was improved, the cleaning, fixation and feeding skills were trained, and overall satisfaction and self-confidence were increased.

Conclusion: This project can improve the knowledge skills and satisfaction of the main caregivers in the nasogastric tube and further increase the physical comfort and safety of the case.

Keywords: Nasogastric-tube, Pipeline slippage

A173

Study on Artificial Intelligence Education in an AI Society

Chia-Sui Wang^a Wei-Neng Huang^{b*}

^{a,b} Chia Nan University of Pharmacy & Science

*corresponding author

nicedodolong@gmail.com

Abstract

In 2019, Mr. Kai-fu Lee, an artificial intelligence (AI) expert, said that in the next 15 years, half of the human work would be replaced by AI; that is, human work will constantly be affected and replaced as technology advances. In the future society created by supercities and global supply chains, we need not only more education or free education, but also entirely different education. In other words, the new work pattern will be a singularity unknown to humans. Such a society is coming, but human beings have not yet known how to deal with it.

Applications in the era of combining 5G with AI include, but are not limited, to big data, the Internet of things, robotics, 3D printing and other emerging technologies. In the future, we not only need AI programmers, but also need to cultivate a large number of talents with digital structure intelligence literacy ability. In this paper, it is proposed that the digital structure intelligence literacy is composed of five aspects: information technology, intelligence technology, creative ability, management ability and domain knowledge. It is a unique human ability to solve the problem of "contextualization", "cross-domain", "integration" and "expression". This ability is the literacy ability that cannot be replaced by AI. The society of Internet+ is followed by the society of AI+, so we need a brand-new education of AI+. The leading European and American countries have cultivated children's creative thinking since their childhood. Scratch, Python, App Inventer and other software are the creativity development tools designed with programming for cultivating the next generation with the ability of digital structure intelligence which cannot be copied by AI.

Keywords: artificial intelligence education, digital structure intelligence literacy, AI+

A174

Study on the Construction of Intelligent and Healthy with Social Innovation to Promote the Ecosystem of Innovation, Entrepreneurship and Creation

Chia-Sui Wang^a Wei-Neng Huang^{b*} Yih-fen Chang^c Zhi-Yuan Su^d

^{a,b,c,d} Chia Nan University of Pharmacy & Science

*corresponding author

nicedodolong@gmail.com

Abstract

This study aims to analyze the health spectrum and disease pyramid formed from the health promotion of before-care to the medical care of after-care as the situational conditions of social innovation. First, after-care clinics, regional hospitals, teaching hospitals, medical centers and other four levels of hierarchical medical resources, as the growth center of the ecosystem, the long-term care system between after-care and before-care should be expanded, as well as the health promotion of before care. Second, it mainly focuses on artificial intelligence and health promotion technology, including but not limited to the double ecosystem formed by innovation, entrepreneurship, and creation. The mixed research methods, such as qualitative research and social judgment theory analysis, were adopted. The results of qualitative research were taken as the clue of the social judgment theory to measure the cognitive analysis of the subjects, and the feasible framework of constructing intelligent and healthy with social innovation, in order to promote the ecosystem of innovation, entrepreneurship and creation was explored.

In this paper, the Siaogang regional hospital hosted by the Kaohsiung Medical University's College of Medicine was taken as the experiment platform. It is hoped to adopt intelligent and information technology to develop application technologies, such as physiological sensing extraction technology, intelligent health cloud platform and offline health value-added services, in combination with public health and information humanities, through subjects such as senior care, maternal and infant health management, sleep monitoring, sports management, chronic disease management, and disease prevention, so as to realize the humanistic medicine idea of Hippocrates, the father of modern medicine, and build the technology research and development and talent cultivation center needed by the health industry.

Keywords: artificial intelligence, health promotion technology, social judgment theory

A175

Study on the Identification of Tea Species and Producing Areas by DNA SNP and a Large Database of Dual-wavelength Proteomics Fingerprints

Ya-Ming Hsueh^a Wei-Neng Huang^{b*}

^{a,b} Chia Nan University of Pharmacy & Science

*corresponding author

nicedodolong@gmail.com

Abstract

In the tea market, the price and value of tea products are generally judged by tea lovers through distinguishing the "aroma of tea". Therefore, the identification of tea species and producing area is the main way for tea lovers to identify the aroma of tea. In the past, the "aroma of tea" was mainly identified in a subjective way, however, the subjective identification is controversial. In this paper, an objective and scientific method was proposed to identify the tea species and its producing area. The DNA molecular marker method of DNA fingerprinting is mainly used in the molecular identification and analysis of tea tree varieties, including SSR, ISSR, SRAP and other molecular marker methods. The intuitive, clear and simple DNA fingerprinting can be obtained to identify tea varieties. However, because tea trees can be asexually propagated from one location to another after pruning, it is difficult to determine the authenticity of the producing area if only DNA fingerprinting is used. In this paper, it is proposed that proteomics change with different physiological metabolism and environment. Therefore, to distinguish the producing area, trace element analysis and proteomics analysis are needed. For example, trace element analysis can be performed by using an electronic tongue or electronic nose, and proteomics analysis can be performed by combining two-dimensional colloidal electrophoresis with liquid chromatography-tandem high-resolution mass spectrometer to obtain fingerprint.

In this way, DNA SNP and dual-wavelength proteomics fingerprints were used to construct a large database of tea species and producing area information, so that we could objectively and scientifically identify the authenticity of tea species and producing areas. In addition, the application of QR-Code can strengthen the original certificate of origin issued by the Department of Agriculture or local governments, and enhance the authenticity identification and anti-counterfeiting effect of high-value agricultural products.

Keywords: DNA fingerprint, proteomics fingerprint, big data, QR-Code, tea

A176

System of Multi-level Authenticity Identification of High-value Natural Products

Yih-fen Chang^a Wei-Neng Huang^{b*}

^{a,b} Chia Nan University of Pharmacy & Science

*corresponding author

nicedodolong@gmail.com

Abstract

Taiwan is dominated by small-scale peasant economy, so it is difficult to increase its output value because of its uncoordinated production scale. Trade is the main source of Taiwan's GDP. In terms of ways to increase agricultural output value, trade value-added technology based on global high-value agricultural products, such as the combination of anti-counterfeiting technology and health management, may be one of the effective ways to break through Taiwan's agricultural dilemma. In addition, in the past, high-value natural products were mainly identified in subjective ways, and the results of price evaluation were controversial. The objective and scientific identification method can be used to improve the market's acceptance of identification results.

Due to the characteristics of high-value natural products, the identification of the authenticity of high-value natural products must include the authenticity of the product (the first cause) and the authenticity of the producing area (the second cause). Therefore, a multi-level identification system is proposed in this paper. In the first level of the design, we mainly use biotechnology instruments to identify the authenticity of products and the producing area, such as DNA SNP fingerprints, proteomics fingerprints, electronic nose, electronic tongue, spectrometer and mass spectrometer. In the second level of the design, the anti-counterfeiting design is adopted in the commercial packaging of high-value natural products. Firstly, the QR-Code with feature information is printed on the outer package of the product by using the characteristic database. Then, the QR-Code is integrated into the traceability system of natural products through block chain technology and intelligent contract to the platform that cannot be tampered with. In the third level of the design, a membership-style APP or Line e-commerce group is designed. In the closed environment, it is possible to purchase natural products and complete multi-level anti-counterfeiting processing procedures, which may be a feasible way in the anti-counterfeiting processing of high-value natural products at present.

Keywords: high-value natural products, authenticity identification, multi-level anti-counterfeiting

A177

利用智慧眼鏡建立科技輔具

王嘉穗^a 黃煒盛^{a,*} 張翊峰^a 許足子^a 葉家茂^b

^a嘉南藥理大學

^b國立中山大學

^{a,*}wasener@gmail.com

摘要

本研究以智慧眼鏡為載體，發展以銀髮族為目標之三種應用發展。台灣 107 年已邁入高齡社會（老年人口比率超過 14%），預計 115 年老年人口將超過 20%，進入超高齡社會。為了改善高齡者的生活品質，重視高齡者的健康照護，生活、消費方式越發仰賴科技產物，智慧型穿戴裝置以及感測技術因而普及化。有鑑於此，本研究主要發展以智慧眼鏡為基體，開發相關功能應用。其一，以人臉辨識為基礎的記憶喚醒機制，當使用者利用此一功能時，會開啟攝影機拍攝對象，並利用 KNN 機器學習，辨別該對象，並透過雲端資料庫，帶入對方資料，同時可透過電腦端新增、刪除、修改對象資料。其二，透過影像強化功能，進行文字功能擴視並放大影像於投射眼鏡片。其三，透過智慧眼鏡的麥克風，進行語音指令的建構。研究結果顯示，KNN 臉部辨識準確率為 93.3%，可應用於一般生活情境中。

關鍵詞：輔具，人臉辨識，智慧眼鏡，機器學習

A178

利用即時影像辨識建置捷運站人員跌倒警示系統之研究

郭庭歡^a 黃煒盛^b 王嘉穗^b 彭煜庭^a 張翊峰^b

^a財團法人資訊工業策進會

^b嘉南藥理大學

^{b,*}wasener@gmail.com

摘要

本研究以人工智慧(AI)的方式進行多人人體骨架的建立。動作骨架模型架構運作的模型從擷取到的影像資訊進行人物的偵測，過濾掉非人的狀態，透過深度模型的架構進行場域中的情境學習，將模型的準確度進行提升。本研究使用 RES-Net 101 來進行模型建立與預測。在人物骨架偵測主要分為兩個階段進行處理：(1)人物偵測，(2)骨架偵測。先使用物體偵測模型找出畫面中為人物的位置，再將人物畫面透過骨架偵測模型找出人物的各部位關鍵點，連結各部位的點後，即可畫出人物的骨架示意圖。研究結果顯示，人物偵測的資料共包含八天的影像，總計處理 2,925 張影像，整體人物偵測的準確度為 85.7%；骨架偵測總計處理 5,217 張人物影像，骨架偵測在誤差容許 30% 以內時，準確度可達 9 成以上。

關鍵詞：跌倒警示，RES-Net，捷運站，深度學習

A179

利用邊緣運算進行禁止進入場域之人物偵測

黃煒盛^a 王嘉穗^{a,*} 張翊峰^a 林鈺皓^b 葉家茂^c

^a嘉南藥理大學

^b瀚銘科技股份有限公司

^c國立中山大學

^{a,*}box1025@mail.cnu.edu.tw

摘要

本研究討論利用機器視覺方式，檢測人員入侵與人員分類。在公共領域中，如何提供安全環境與便民服務，是政府、警務單位與民眾都很關心的議題。以往在廠區週邊入侵偵測管理，多半採用建構紅外線感測、埋線感應物體經過等方式，除有建置成本過高的問題外，也難以區別人、動物、物體等。本研究透過影像分析，利用 DVR 中的 VPU 進行機器學習，設定禁止進入區域。當有人進入禁止進入區域時，進行圖像標記並計數。研究結果顯示，在人員進入禁入場域方面，準確率為 96.82 %，主要錯誤發生於人員重複標記，還有多人重疊標記；在人員分類方面，準確率為 91.25 %，主要錯誤發生於類似穿著人員。

關鍵詞：禁止進入場域，No-Entry Area，捷運站，邊緣運算

A180

輔具鍛造件之數位化金相辨識方法

黃煒盛^a 王嘉穗^{a,*} 張翊峰^a 許足子^a 葉家茂^b

^a嘉南藥理大學

^b國立中山大學

^{a,*}wasener@mail.cnu.edu.tw

摘要

本研究利用特徵影像法來分析鋼材鍛造輔具中金相特徵，藉以評估材料球化處理(Spheroidization Annealing)的優劣。材料的品質檢測方法，除了一般物性化性及機械性質量測外，還包含使用金相檢測；本研究應用影像辨識中的形態學方式，來確保輔具的材料品質，主要應用在低合金中碳鋼的金相分析。低合金中碳鋼係屬亞共析鋼的球化退火，在退火完成後，波來鐵組織會形成肥粒鐵包含球狀碳化物的組織，其線材球化率即表示球狀碳化物的球化情形。低合金中碳鋼線材球化率可以標準照片比對及數位化判定等兩種方式檢測：。在標準圖片比對中，常用到的為 JIS G3507-2:2005、JB/T 5074-2007 以及 ASTM A892-88 等三種標準；而在數位化判定部分，一般公認使用球狀碳化物的長寬比比例計算之並以標準檢測圖片進行人工比對，其結果精確度有待商榷，且較易受個人主觀判定影響，而以電腦進行自動掃描判定的數位化判定方式之結果則相對較為精確且客觀。

關鍵詞：鍛造，輔具，球化率，金相分析

A181

雷射針灸治療耳鳴之系統性回顧及薈萃分析

Effect of low-level laser therapy in the treatment of tinnitus :

A systematic review and meta-analysis

蔡珮雯^a 吳峻誠^b、陳光庭^b、許昇峰^{a*}

^a 中國醫藥大學 中醫學院針灸研究所 台中台灣

^b 中國醫藥大學 中醫學系 台中台灣

^a 聯絡人 u107074203@cmu.edu.tw

摘要

目的 探討雷射針灸治療耳鳴的效果。方法 透過檢索近十年內Pub Med、Embase、Cochrane Library以雷射針灸治療耳鳴的隨機對照實驗，根據納入和排除標準，選擇符合研究標準的文獻，根據Cochrane系統評價手冊5.0版推薦的方法進行文獻質量分析，並採用RevMan5.3進行薈萃分析。結果 共納入文獻3篇進行薈萃分析，共188例患者，雷射針灸治療耳鳴之療效並沒有優於對照組。結論 根據納入的雷射針灸治療耳鳴的文獻所進行的分析結果，統計上並不具意義，但由於目前文獻質量的限制，建議待將來更多大樣本隨機對照實驗進行後，再進一步論證。

關鍵詞：耳鳴、雷射針灸、系統性回顧

Abstract

This study aimed at a systematic review and meta-analysis of all available randomized controlled trials (RCTs) using laser acupuncture to treat tinnitus. Three electronic databases, Pub Med, Embase and Cochrane Library, were searched. A meta-analysis was conducted according to the Cochrane systematic review method using RevMan 5.3 software. Three articles were included in the meta-analysis. A total of 188 patients were found. The therapeutic effect of laser acupuncture on tinnitus was not better than that of the control group. According to the analysis results of the included literature on laser acupuncture treatment of tinnitus, it is not statistically significant. As the limitation of the quality of the current literature, we recommend to wait for larger sample size of randomized controlled trials (RCTs) in the future before further demonstration.

Keywords: *tinnitus* 、 *low level laser acupuncture* 、 *systematic review*

A182

以人臉辨識為基礎之智慧藥盒系統設計與實作

The Design and Implementation of An Intelligent Pill Box Management System based on Facial Recognition Techniques

陳瑞甫^a 方義順^a 吳敏銓^a 謝宗翰^a 蘇育萱^a 蔡旻軒^a 龐惟騰^a

^a嘉南藥理大學資訊管理系

^arafuchen@mail.cnu.edu.tw

摘要

隨著高齡化社會來臨，高齡患者由於身體機能老化，慢性疾病發生率也隨之上升，而慢性病者需長期服用藥物，而目前存在許多服藥問題困擾著病患及其家屬，例如：患者工作忙碌而忘記服藥、因病導致記憶問題吃錯藥、重複吃藥等，若能針對這些問題找出適當的解決方案，則可達到有效控制病情效果。為達到上述目的，本研究結合人臉偵測技術去拍照記錄用藥狀況以及身分辨識。透過觸控螢幕的圖形化界面，使用者可以進行新增修改刪除查詢裡面的用藥狀況，即使非使用者本人在需要瞭解對方的情況還有服用情形也能夠點選藥盒記錄及病患基本資料中查閱，對於用藥有疑惑或使不適時可以從藥物管理中得到整理過後的資訊，以利後續判斷。本研究所發展之智慧藥盒系統共包含四項基本功能：分別為病歷管理、藥品基本資料管理、用藥紀錄管理及藥盒設定，透過相關功能的設計與實作，本系統開發出一個以人臉辨識為基礎之智慧藥盒系統雛形，透過本系統之設計與實作，希望能提供一個有效且實用之智慧藥盒管理系統，以提升用藥安全。

關鍵詞：智慧藥盒、人臉辨識、高齡化社會、慢性病、藥物管理

B001

病人急救記錄與出院狀況之探討-以中部某醫院為例

校名與科系：嘉南藥理大學

指導教師：洪萬吉

聯絡人姓名與 E-mail：hwj7902@mail.cnu.edu.tw

團員成員：何虹慧、梁逸璇、陳水錦

摘要

目的：在這科技發達的時代，人們的生活越來越便利，而在現代豐衣足食的世代，人們的生活、飲食、娛樂等越來越高級、精緻，因種種因素造成身體有許多疾病，有時可能成為慢性疾病、有時可能發生太突然而需要急救，因此本研究探討病人的急救紀錄與出院狀況之關聯性，作為提高病人的存活率與醫療品質，達到以病人為中心的目標。

方法：本研究採問卷調查，分析工具為 SPSS 12.0 統計軟體，及描述性統計分析與卡方及學生氏 t 檢定。問卷回收 633 份問卷，問卷回收率為 100%。

結果：研究結果顯示有意識佔(42.1%)，無意識比率佔(57.9%)，有呼吸則佔(65.0%)，無呼吸比率佔(35.0%)。以發生時間進行分類，分別有白班、小夜班及大夜班這三大類，結果顯示白班(42.7%)是最常發生的時間，其次是小夜班(32.5%)。以出院狀況的分布統計結果顯示最高的是準許出院(40.4%)，其次是死亡(32.9%)和瀕死自動出院(22.6%)。每個急救過程平均急救時間為 43.19 分鐘，急救時間花費最長時間有達到超過 20 個小時。病人在急救時有無意識、呼吸、有沒有測到最初心跳、最初血壓與平均急救時間經獨立樣本 T 檢定後，得知有無意識與平均急救時間是有顯著差異，顯示意識與平均急救時間之間有顯著關係，而有無呼吸、有沒有測到最初心跳、最初血壓與平均急救時間是沒有顯著差異，顯示呼吸、最初心跳、最初血壓與平均急救時間之間沒有顯著關係，結論得出無意識、無呼吸、測不到心跳、測不到血壓的病人在急救時所花費的時間比較長。病人在急救時有無意識與出院狀況分組經過卡方檢定值是 39.585，有顯著差異，表示有無意識與出院狀況分組之間有關係。病人在急救時有沒有測到最初血壓與出院狀況分組經過卡方檢定值是 37.252，有顯著差異，表示有沒有測到最初血壓與出院狀況分組之間有關係。

結論：急救前無意識、無呼吸、測不到心跳、測不到血壓的病人，在急救時所花費的時比較長，急救後存活機率也較低，希望在病人發生非預期心跳停止前可以提早發現異常，進而發展出早期警示系統，提高病人的存活率。

關鍵詞：急救、醫療品質、SPSS

B002

探討敲擊音樂對社區住民情緒慰藉之成效

Exploring the effect of percussion music on the emotional comfort of community residents

龔玉齡^{a*} 鄭書羽^b 林盈甄^b 張雅婷^b

^a 嘉南藥理大學老人服務事業管理系 副教授

^b 嘉南藥理大學老人服務事業管理系 大專生

摘要

本研究在於探討敲擊音樂對社區住民情緒慰藉情況，以臺南市南區新生里(都市型長輩)、官田區渡頭里(城鄉型長輩)中 50 位社區長輩為研究之對象，其中女性為 42 人 (佔 84%)，男性為 8 人 (佔 16%)。受問卷者大多數為退休後的家管，年齡分布在 71-75 歲 16 人 (佔 32%) 閩南人，而鄉村型長輩學歷較多為國小，城市型長輩學歷為高中(職)。

在 50 份問卷中有 21 位長輩使用改良版和傳統版鈴鼓後的比較回應，從改良版鈴鼓的外型及觸感對長輩較喜歡者為 16 人 (佔 76.2%)；傳統版為 5 人 (佔 23.8%)。從改良版鈴鼓的聲音對長輩較喜歡者為 14 人 (佔 66.7%)；傳統版為 7 人 (佔 33.3%)。根據以上改良版鈴鼓來說，大多數長輩們喜歡有花樣的鈴鼓，可增添不一樣的風格，對於改良版的喜好度偏大，不論是外觀、觸感、聲音甚至使用起來的感覺都獲得長輩們的青睞。

在 50 份問卷中有 29 位長輩使用改良版和傳統版手搖鈴後的比較回應，從改良版手搖鈴的外型對長輩喜歡者為 12 人 (佔 41.4%)；傳統版為 17 人 (佔 58.6%)。改良版手搖鈴的使用度對長輩較喜歡者為 13 人 (佔 44.8%)；傳統版為 16 人 (佔 55.2%)。改良版手搖鈴的聲音對長輩喜歡者為 11 人 (佔 37.9%)；傳統版為 18 人 (佔 62.1%)。根據以上改良版手搖鈴，大多數長輩們都喜歡傳統的手搖鈴外觀、使用度，但長輩們較喜歡傳統手搖鈴響亮的聲音。

經本研究可知，社區長輩藉由敲擊樂器活動中認識敲擊樂器、體驗音樂和社區長輩能共同參與活動。並且觀察到使用音樂輔療活動，長輩們的情緒有得到慰藉，另外，對於長輩們認知能力也有正向的影響。

關鍵字：敲擊音樂、社區長輩、喜歡。

B003

民眾對醫院自助式服務科技使用之研究－以某區域醫院為例

校名與科系：嘉南藥理大學 醫務管理系

指導教師：潘大永

聯絡人姓名與 E-mail：徐紫芸、sled01122@gmail.com

團員成員：陳意蓁、洪琬琳、徐紫芸、陳薪伊、錢姿尹

摘要

近年來自助式服務科技(SST)被醫療產業引進使用，為達便民省時目的。SST 可帶來許多便利性，但民眾使用過程中，其感受與滿意度程度，卻鮮為醫療產業所重視及了解，為此是否有顧慮到民眾使用時的接受度及滿意度，達提升醫療服務效果，去了解民眾使用時的現況內容是我們該去探討。

本研究欲探討民眾對醫院 SST 的使用滿意度以及對該機器的認知易用性、認知有用性、使用態度與使用意圖間的關係，本研究以高雄某區域醫院為例，針對民眾實際情形，收集相關資料進行統計分析，實證結果顯示：

(一) 認知易用性正向影響認知有用性 (二) 認知有用性正向影響使用態度 (三) 使用態度正向影響行為意圖 (四) 行為意圖正向影響使用行為 (五) 滿意度正向影響使用行為。

關鍵詞：自助式服務科技、滿意度、科技接受模式

Abstract

In recent years, self-service technology has introduced into the medical industry for the purpose of convenience and time saving. SST can bring many conveniences, but the feeling and satisfaction degree of the people in the process of use it are seldom valued and understood by the medical industry.

The purpose of this study is to explore the satisfaction of the SST in hospital and the relationship between the perceived ease of use, perceived usefulness, attitude toward using and behavioral intention to use of this machine. The empirical results show that : (1)perceived ease of use positively affects perceived usefulness (2) perceived usefulness positively affects attitude toward using (3) attitude toward using positively affects behavioral intention to use(4) behavioral intention to use positively affects behavior (5) satisfaction positive affect the behavior.

Keywords: self-service technology, satisfaction, technology acceptance model

B004

肢體語言辨識系統的加值應用—與機共舞

校名與科系：樹人醫護管理專科學校 資訊管理科

指導教師：王士豪

聯絡人姓名與 E-mail：董姿妤、s50505002@student.szmc.edu.tw

團員成員：董姿妤、林毅威、吳勁緯、鄭茵之、盧威銘

摘要

近年來人工智慧 (Artificial intelligence) 與機器學習的進步，使得使用資訊科技來進行物體、動作、肢體等之識別與應用也逐漸變為一種趨勢，而肢體語言辨識系統即為其中的一個例子。另外無人多旋翼機技術逐漸成熟，由於它的攜帶方便性與機動性等要素，從剛開始的娛樂，逐漸運用到貨品運送、空中畫面捕捉、甚至是災難救援都可以看見無人多旋翼的蹤影，本專題嘗試將肢體辨識系統結合無人多旋翼機，藉由偵測肢體動作進而操作無人多旋翼機，提供多一種不同的方式操作無人多旋翼機，降低操作無人多旋翼機的門檻，使一般大眾皆能輕易使用，尤其對於手部受傷、無法靈活使用遙控器或是手機 APP 的身障人士更是一大福音，透過本專題所應用的肢體辨識系統，就能將肢體動作轉為無人多旋翼機的控制指令對它進行操作與互動，並進而與之共舞。

關鍵詞：無人多旋翼機、肢體辨識系統、體感操作