科技部補助專題研究計畫報告

心房顫動患者疾病表述之追蹤研究－性別差異及自我管理介入課程前後之比較 (L03)

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本研究具有政策應用參考價值：□否　■是，建議提供機關衛生福利部
（勾選「是」者，請列舉建議可提供施政參考之業務主管機關）
本研究具影響公共利益之重大發現：■否　□是

中 華 民 國 109 年 10 月 31 日

中 文 摘 要 ： 背景：心房顫動(atrial fibrillation, AFib)患者對疾病表述隨性別或時間變化而差異，生活品質受疾病表述及其他因素影響。

目的：(1) 追蹤107年度計畫個案症狀發生與對疾病及症狀感知狀況，並比較107及108年度差異。(2) 探討108年度個案症狀情況、疾病及症狀感知及生活品質於性別的差異。(3) 探討108年度個案生活品質映像因素及預測因子。

方法：追蹤107年度AFib個案。研究工具：基本資料及病史、AFib症狀、疾病及症狀感知及生活品質量表。描述性及推論性統計比較組間與組內的差異，複迴歸分析生活品質預測因子 。

結果：追蹤110位個案12.1±1.7月。男性71位(64.5%)，女性39位(35.5%)。平均年齡64.0±0.8歲。基本資料及疾病史只有職業具性別差異。症狀：兩年度中4項症狀的人數於108比107年度少，包含心臟、胸部症狀、胸痛及頭暈。疾病及症狀負向感知程度有3項為女性高於男性，包含「AFib發作是非常難預料」，「當我想到我的AFib時，我會心情煩亂」及「我的AFib使我感到挫折沮喪」。108年度感知負向程度低於107年度的有3項，包含「AFib造成的影響總分」、「對AFib的理解總分」及「病程循環總分」；108年度負向程度高於107年度的有2項，含「對AFib控制的總分」及「治療控制度總分」。生活品質：2項分數為女性高於男性，包含「快步行走造成的困難」，及「快步上坡或提著雜貨或其他物件，不停止爬上一段樓梯造成的困難」。生活品質的單變量分析呈現有統計意義之變項：症狀感知的各次量表總分(症狀的時間特性、AFib造成的影響、對AFib的理解、病程循環、情緒表徵及治療的控制度)與整體感知總分等負向感知程度越高則生活品質總分越低。症狀變項：生活品質於症狀數愈多時愈差；目前無症狀者比有症狀者生活品質高；有胸部被敲打感、心跳不規則、胸痛、呼吸症狀、頭暈及身體疲憊症狀比無以上症狀者生活品質差。曾服用Amiodarone及乙型交感神經阻斷劑者比未曾服用此二種藥物者的生活品質分數低。生活品質有5項預測因子，總解釋力為63%，最強解釋力的為「AFib造成影響的總分」，其次依序為「情緒表徵總分」、「症狀總數」，「服用Amiodarone」及「治療的控制度總分」。

結論：108比107年度好的有症狀的發生率及對AFib造成影響、疾病理解與病程循環感等的負向感知程度。108年度負向感知高於107年度的有對疾病及治療的控制感。女性高於男性負向感知的有對AFib發作難預料、會心情煩亂及挫折沮喪。女性高於男性生活品質的為體能的限制。生活品質預測因子：AFib造成影響越大、情緒及治療的控制感越負向、出現症狀越多及服用Amiodarone者生活品質較差。健康照顧者宜注意以上性別差異及生或品質影響因素，並將個別性及重要預測因子考慮於AFib健康照護計畫中

中文關鍵詞 ： 心房顫動、性別差異、追蹤研究、疾病表述、生活品質

英 文 摘 要 ： Aim: A project in 2018 followed patients with AFib and accessed their perception about AFib and their symptoms. Differences were compared between cases in 2018 and 2019. Regarding cases in 2019, their symptom conditions, AFib and symptom perception, and QOL were accessed based on their sexes. Factors affecting QOL and prediction factors of

cases in 2019 were accessed.
Methodology: AFib cases in 2018 were traced. Research tools included demographic data, disease history, AFib symptoms, perceptions of AFib and its symptoms and QOL. Descriptive and inferential statistics were used to compare within-group and between-group differences. A multiple regression analysis was conducted to analyze predicters for QOL.
Result: A total of 110 cases were included for analysis. 71 (64.5%) were men and 39 (35.5%) were women. They averaged 64.0±0.8 years old. Only participants' occupation exhibited gender differences. Shared symptoms were investigated and the number of patients aware of 4 symptoms in 2019 was less than that in 2018 (heart symptoms, chest symptoms, chest pain, and lightheartedness). Negative perception of AFib and its symptoms: in 3 items, women scored higher than men did: "AFib is very unpredictable", "I get upset" and "I feel frustrated". In 2019, patients' negative perception on 3 items were lower than those in 2018: total score of consequences, illness coherence and cyclic timeline. In 2019, 2 items ranked higher than in 2018 regarding the degree of negativity: total score of personal and treatment control. QOL: women scored higher than men did in 2 items: difficulty in walking briskly and uphill or carrying groceries. Statistically significant of univariate analysis on QOL: participants who scored higher in the negative perceptions(timeline of AFib, consequences of AFib, illness coherence of AFib, cyclic timeline, emotional representations, treatment control and overall perception) had a lower total score in QOL; more symptoms had a lower QOL, not having any symptoms currently had a higher QOL than those who did, with palpitations or skipping, irregular heartbeat, chest pain, breathing symptoms, lightheadedness and fatigue had a lower QOL than those without those symptoms; had taken Amiodarone and beta blockers had a lower QOL score than did those who had not. QOL had 5 significant predictors (total score of consequences, emotional representations, treatment control of AFib, total number of symptoms and taking Amiodarone), and their total variance explained was 63%.
Conclusion: In 2019, patients exhibited a lower occurrence rate of AFib symptoms than did in 2018. Their degrees of 3 negative perception were also less. In 2019, 2 patients' negative perceptions were higher than in 2018. Women scored higher than men in 2 emotional items of negative perception. Women also scored higher in 2 QOL items related to physical constraints. Patients who strongly felt the consequences caused by AFib, had negative emotional

representations, had negative sense of treatment control, perceived more symptoms, and took Amiodarone had low QOL. Health provider should pay more attention in aforementioned gender differences and influencing factors of QOL, and consider these individual and essential predictive factors in health care.

中文摘要

背景：心房顫動(atrial fibrillation, AFib)患者對其疾病的表述隨著性別或時間變化而有所差異，生活品質則受其對疾病的表述及其他因素影響。

研究目的：(1)針對107年度計畫的個案追蹤症狀發生與其對AFib疾病及症狀的感知狀況，比較107及108兩個年度的差異。(2)針對108年度的個案探討其症狀情況、AFib疾病及症狀感知及生活品質於性別上的差異。(3)針對108年度的個案探討其生活品質影響變項及其預測因子。

研究方法：針對107年度於一所醫學中心之心臟科AFib個案追蹤。研究工具包括基本資料及疾病史、AFib症狀狀況、AFib疾病及症狀的感知(修改之AFib Illness Perception Questionnaire-Revised, AFib IPQ-R)，及AFib的生活品質量表(Atrial Fibrillation Effect on QualiTy-of-life, AFEQT)。以SPSS 24版，採統計顯著水準為0.05雙尾檢定分析，以描述性及推論性統計比較組間與組內的差異，以複迴歸分析生活品質的預測因子 。

結果：以追蹤的110位個案作分析，平均追蹤12.1±1.7月(8.80~17.5月)。男性71位(64.5%)，女性39位(35.5%)。平均年齡整體為64.0±0.8歲（33-87歲），女性62.0±10.5歲（33-80歲），男性65.1±10.9歲（36-87歲）。基本資料及疾病史只有職業具性別差異（χ^2=22.59，p<0.01），退休比例女性(12人，10.9%）少於男性(34人，30.9%)；男性工作上以工業為主（16人，14.5%），女性則從事家管為主（11人，10%）。症狀方面，兩個年度共同的症狀中，4項自覺有症狀的人數於108年度比107年度少（p<0.05），包括心臟症狀（心悸、心跳不規則、暫停）為35人（32.1%）比69人（63.3%），胸部症狀的胸口悶或有壓迫感為40人（39.6%）比58人（57.4%）及胸痛為14人（12.8%）比31人（28.4%），頭暈（昏）則是28人（25.7%）比43人（39.4%）。對AFib疾病及其症狀負向感知的程度有3項為女性高於男性（p<0.05），分別是「心房顫動的發作是非常難預料」（3.85±0.78，3.47±1.06；t=2.11），「當我想到我的心房顫動時，我會心情煩亂」（2.95±1.15，2.74±0.91，t=2.24）及「我的心房顫動使我感到挫折沮喪」（2.74±1.07，2.23±0.76，t=2.65）。108年度感知負向程度低於107年度的有3項，分別是「心房顫動造成的影響總分」（14.68±4.04，16.53±4.55，t=4.34，p<0.01）、「對心房顫動的理解總分」（15.61±2.90，18.89±4.81，t=6.82，p<0.01）及「病程循環總分」（11.38±3.08，12.41±2.77，t=3.43，p<0.01）；108年度負向程度高於107年度的有2項，分別是「對心房顫動控制的總分」（20.40±4.16，t=-3.11，p<0.01）及「治療的控制度總分」（20.24±4.05，17.91±3.65，t=-5.58，p<0.01）。生活品質方面，有2項分數為女性高於男性，分別是「快步行走造成的困難」（3.47±1.91，2.69±1.68，t=2.21，p=0.03），及「快步上坡或提著雜貨或其他物件，不停止地爬上一段樓梯造成的困難」（4.18±2.01，3.35±1.84，t=2.18，p=0.03）。關於生活品質單變量分析呈現有統計意義的變項，於AFib及其症狀感知的各次量表總分為：症狀的時間特性

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（r=-0.26）、AFib 造成的影響（r=-0.64）、對 AFib 的理解（r=-0.45）、病程循環（r=-0.48）、情緒表徵（r=-0.54）及治療的控制度（r=-0.30）與整體感知總分（r=-0.65）等負向感知程度越高則生活品質總分越低（p<0.01）。在症狀相關變項中，生活品質於症狀數愈多時愈差（r=-0.55，p<0.01）；目前無症狀者比有症狀者高（t=3.83，p<0.01）；有胸部被敲打感覺、心跳不規則、胸痛、呼吸症狀、頭暈（昏）及身體疲憊等症狀者比無以上症狀者生活品質差(t=2.67~4.56，p<0.05)。病史上則為曾服用 Amiodarone（t=3.22）及乙型交感神經阻斷劑（t=3.70）者比未曾服用此二種藥物者的生活品質分數低（p<0.01）。生活品質有 5 項顯著預測因子，總解釋力為 63%，最強解釋力的變項為「AFib 造成影響的總分」 (B =-1.36, R^2 改變量= 41.6%)，其次依序為「情緒表徵總分」 (B = -0.80, R^2 改變量= 8.5%)、「症狀總數」 (B = -3.00, R^2 改變量= 5.7%)，「服用 Amiodarone」 (B = -8.69, R^2 改變量= 4.2%)及「治療的控制度總分」 (B = -1.23, R^2 改變量= 3.0%)。

結論：108 比 107 年度好的有心臟症狀、胸悶、胸痛及頭暈的發生率；對 AFib 造成的影響、疾病理解及病程循環感的負向感知程度。108 年度負向感知高於 107 年度的有 AFib 的疾病及治療的控制感。性別比較中，女性高於男性的負向感知有：AFib 發作難預料、想到 AFib 時會心情煩亂及 AFib 使我挫折沮喪。女性高於男性生活品質為體能的限制，如快步行走及爬坡或提物品不停止爬樓梯。生活品質的預測因子為：感受 AFib 造成的影響越大、情緒及治療的控制感越負向、出現的症狀數越多及服用 Amiodarone 者其生活品質越差。健康照顧者宜注意以上性別差異及生或品質的影響因素，並將其個別性及重要預測因子考慮於 AFib 的健康照護計畫中。

Abstract

Background: Symptoms of atrial fibrillation (AFib) described by patients can vary with patients' sexes and time. Patients' quality of life (QOL) is affected by their disease description and other factors.

Aim: A project in 2018 followed patients with AFib and accessed their perception about AFib and their symptoms. Differences were compared between cases in 2018 and 2019. Regarding cases in 2019, their symptom conditions, AFib and symptom perception, and QOL were accessed based on their sexes. In addition, factors affecting QOL and prediction factors of cases in 2019 were accessed.

Methodology: AFib cases at the cardiology department of a medical center in 2018 were traced. Research tools included demographic data, disease history, AFib symptoms and conditions, perceptions of AFib and its symptoms (modified from AFib Illness Perception Questionnaire-Revised, AFib IPQ-R), and QOL (Atrial Fibrillation Effect on QualiTy-of-life, AFEQT). SPSS 24 was used, and a two-tailed test was adopted, with 0.05 being statistically significant. Descriptive and inferential statistics were used to compare within-group and between-group differences. A multiple regression analysis was conducted to analyze predictive factors for QOL.

Result: A total of 110 cases were included for analysis. They were followed-up for an average of 12.1 ± 1.7 (8.80~17.5) months. Among the participants, 71 (64.5%) were men and 39 (35.5%) were women. They averaged 64.0 ± 0.8 (33-87) years old. Among their demographic information and disease history, only their occupation exhibited gender differences ($\chi^2 = 22.59$，$p < 0.01$). More men (34, 30.9%) than women (12, 10.9%) have retired. Most men held a job as industrial workers (16, 14.5%), whereas most women were housekeepers (11, 10%). Regarding symptoms, shared symptoms were investigated and the number of patients aware of 4 symptoms in 2019 was less than that in 2018 ($p < 0.05$). Specifically, the number of patients reporting heart symptoms (palpitations or irregular pauses), chest symptoms (chest tightness or pressure), chest pain, and lightheartedness or dizziness in 2019 and 2018 were 35 (32.1%) versus 69 (63.3%), 40 (39.6%) versus 58 (57.4%), 14（12.8%）versus 31 (28.4%)，and 28（25.7%）versus 43 (39.4%), respectively. Regarding negative perception of AFib and its symptoms, in 3 items, women scored higher than men did ($p < 0.05$)："*AFib is very unpredictable*"（3.85 ± 0.78，3.47 ± 1.06；$t = 2.11$）*, "When I think about my AFib I get upset*" (2.95 ± 1.15，2.74 ± 0.91，$t = 2.24$）and "*My AFib makes me feel frustrated*" (2.74 ± 1.07，2.23 ± 0.76，$t = 2.65$）. In 2019, patients' negative perception on 3 items were lower than those in 2018: "*total score of consequences*" (14.68 ± 4.04，16.53 ± 4.55，$t = 4.34$，$p < 0.01$）, "*total score of illness coherence*" (15.61 ± 2.90，18.89 ± 4.81，$t = 6.82$，$p < 0.01$）, and "*total score of cyclic*

timeline"（11.38±3.08，12.41±2.77，t=3.43，p<0.01）. In 2019, 2 items ranked higher than in 2018 regarding the degree of negativity: "*total score of personal control*" (20.40±4.16，t=-3.11，p<0.01）and "*total score of treatment control*" (20.24±4.05，17.91±3.65，t=-5.58，p<0.01）. Regarding <u>QOL</u>, women scored higher than men did in 2 items: "*difficulty in walking briskly*" (3.47±1.91，2.69±1.68，t=2.21，p=0.03）and "*difficulty in walking briskly uphill or carrying groceries or other items, up a flight of stairs without stopping*" (4.18±2.01，3.35±1.84，t=2.18，p=0.03）. Regarding univariate analysis on QOL, variables that were statistically significant were the following: the total scores in each subscale of AFib and its symptoms, including timeline of AFib（r=-0.26）, consequences of AFib（r=-0.64）, illness coherence of AFib（r=-0.45）, cyclic timeline（r=-0.48）, emotional representations（r=-0.54）and treatment control（r=-0.30）, and the total score of overall perception（r=-0.65）, participants who scored higher in the aforementioned negative perceptions had a lower total score in QOL（p<0.01）; regarding variables related to symptoms, patients with more symptoms had a lower QOL（r=-0.55，p<0.01）, patients not having any symptoms currently had a higher QOL than those who did（t=3.83，p<0.01）, patients with palpitations or skipping, irregular heartbeat, chest pain, breathing symptoms, lightheadedness or dizziness and fatigue had a lower QOL than those without those symptoms（t=2.67~4.56，p<0.05）; regarding disease history, patients who had taken Amiodarone（t=3.22）and beta blockers（t=3.70）had a lower QOL score than did those who had not （p<0.01）. QOL had 5 significant predictive factors, and their total variance explained was 63%. The item with the strongest explanatory factor was "*total score of consequences due to AFib*" (B =-1.36, variance of R^2 change=41.6%), followed by "*total score of emotional representations due to AFib*" (B =-0.80, variance of R^2 change=8.5%), "*total number of symptoms*" (B=-3.00, variance of R^2 change=5.7%), "*taking Amiodarone*" (B=-8.69, variance of R^2 change=4.2%), and "*total score of treatment control of AFib*" (B=-1.23, R^2 variance of R^2 change=3.0%).

Conclusion: In 2019, patients exhibited a lower occurrence rate of heart symptoms, chest tightness, chest pain and lightheartedness or dizziness than did in 2018. Their degrees of negative perception on consequences caused by AFib, illness coherence and cyclic timeline were also less. In 2019, patients' negative perceptions on personal and treatment control of AFib were higher than in 2018. When patients were compared based on sex, women scored higher than men in the negative perception of "*AFib is very unpredictable*" and "*When I think about my AFib, I get upset and makes me feel frustrated.*" Women also scored higher in QOL items related to physical constraints, such as "*difficulty in walking briskly or walking briskly uphill or carrying items, up a flight of stairs without stopping.*" Regarding predictive factors for QOL,

patients who strongly felt the consequences caused by AFib, had negative emotional representations, had negative sense of treatment control, perceived more symptoms, and took Amiodarone had low QOL. Health provider should pay more attention in aforementioned gender differences and influencing factors of QOL, and consider these individual and essential predictive factors in health care.

108年度專題研究計畫成果彙整表

計畫主持人：蔡玉霞			計畫編號：108-2629-B-182-001-	
計畫名稱：心房顫動患者疾病表述之追蹤研究—性別差異及自我管理介入課程前後之比較（L03）				
成果項目			量化	單位	質化 （說明：各成果項目請附佐證資料或細項說明，如期刊名稱、年份、卷期、起訖頁數、證號...等）

		成果項目	量化	單位	質化
國內	學術性論文	期刊論文	0	篇	
		研討會論文	0		
		專書	0	本	
		專書論文	0	章	
		技術報告	0	篇	
		其他	0	篇	
國外	學術性論文	期刊論文	0	篇	
		研討會論文	0		
		專書	0	本	
		專書論文	0	章	
		技術報告	0	篇	
		其他	0	篇	
參與計畫人力	本國籍	大專生	0	人次	
		碩士生	0		
		博士生	0		
		博士級研究人員	4		3位教授，1位助理教授
		專任人員	2		2位講師
	非本國籍	大專生	0		
		碩士生	0		
		博士生	0		
		博士級研究人員	0		
		專任人員	0		
其他成果 （無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。）					