

FEASIBILITY AND ACCEPTABILITY OF A RESILIENCE TRAINING PROGRAM FOR INTENSIVE CARE UNIT NURSES

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Introduction

- ▶ 美國護理人員短缺,尤其 ICU NURSE
 - ▶ 每年25-65%離開職場
 - ▶ 降低護理人員流失，是護理領導者最優先關注的問題
- ▶ 制定復原關懷的因應策略
- ▶ 協助護理人員適應壓力的工作經驗
- ▶ 減輕適應不良的心理症狀



加護病房 護理師的壓力？

YouTube ^{TW}



NURSES CUT STRESS 40% WITH RELAXATION STEPS
AT WORK



<https://www.youtube.com/watch?v=ucbHPWGzuoo>

加護病房護理師離職原因



步驟 I：研究探討的問題為何？

■ 研究族群 / 問題 (Population/ Problem) : p 98

- ✓ ICU nurses

■ 介入措施 (Intervention) :

- ✓ multimodal resilience training (12-week intervention)
 - Two-Day Educational Workshop
 - Written Exposure Therapy
 - Mindfulness-based stress reduction (MBSR) Practice
 - Exercise (30 to 45 minutes of aerobic exercise at least 3 days per week)
 - Event-Triggered Counseling Sessions.

■ 比較 (Comparison) : No intervention

■ 結果 (Outcomes) :

- ✓ resilience, anxiety, depression, post-traumatic stress disorder (PTSD), and burnout syndrome
-



步驟 2：研究的品質有多好(內在效度)？

招募(Recruitment) - 受試者是否具有代表性？ (Methods p98)

評讀結果： ☒ 是 ☐ 否 ☐ 不清楚 說明：

1. This single-center, **randomized**, controlled study involved a 12-week intervention. ICU nurses were selected from an academic institution and were recruited from October 2012 to December 2012.
2. Nurses were eligible to participate if they (1) were currently **working 20 hours** per week at the ICU bedside, (2) had **no underlying** medical condition that would be a contraindication **to exercise**, and (3) **scored 82 or less on the Connor-Davidson Resilience Scale (CD-RISC)**. Nurses were excluded from participating if they (1) were **unable to participate in a 2-day educational** workshop or (2) had a medical condition that would **limit exercise**.
3. **Written informed** consent was obtained from all participants.

步驟 2：研究的品質有多好(內在效度)？

分派(Allocation) - 分派方式是否隨機且具隱匿性...？

評讀結果：☐ 是 ☒ 否 ☐ 不清楚 說明：無法blind

Description of Intervention (p.99)

- An **honest broker** was used to ensure that participants' responses remained anonymous(匿名)。
- The honest broker was not part of the study team (非研究團隊一員)，assigned unique identification numbers to participants, and then linked individual participants' information with those identification numbers. (給予一個數據代號)
- All data were entered into the REDCap data management system³⁰ by using unique study identification numbers so that study personnel remained blinded to the identity of the participants. (研究者無法辨識代號為何意義)



步驟 2：研究的品質有多好(內在效度)？

每個組別，在研究開始時的情況是否相同？

評讀結果：☒ 是 ☐ 否 ☐ 不清楚

Table 1
Demographics of the 27 participants in the study

Category	Intervention group (n = 13)	Control group (n = 14)
Sex, % Female	92	86
Marital status, % Single	42	50
Race, % White	100	100
Children, % Yes	25	14
Years practicing in intensive care unit, mean (SD)	4.88 (4.16)	5.81 (7.36)
Highest nursing degree, % Bachelor's	100	100

These 27 ICU nurses represented the medical, surgical, burn, and cardiac ICUs.

步驟 2：研究的品質有多好(內在效度)？

是否有足夠的追蹤(Follow up)？

評讀結果： ☒ 是 ☐ 否 ☐ 不清楚 說明

- We found 33 eligible ICU nurses who were interested in participating in the trial and provided informed consent.
- Four of these ICU nurses were subsequently excluded because they were scored as being resilient on the CD-RISC.
- Of the 29 remaining ICU nurses, 14 were randomized to the intervention arm and 15 were randomized to the control arm.
 - ✓ Two participants withdrew from the study before the start of the 12-week training period: 1 from the intervention arm and 1 from the control arm.
 - ✓ Therefore, 27 participants participated in the 12-week trial

步驟 2：研究的品質有多好(內在效度)？

評估(Measurement) - 受試者與評估者是否對治療方式及(或)評估目的維持盲法(blind)？

評讀結果： ☒ 是 ☐ 否 ☐ 不清楚 說明：

- An honest broker was used to ensure that participants' responses remained anonymous.
- The honest broker was not part of the study team, assigned unique identification numbers to participants, and then linked individual participants' information with those identification numbers.
- All data were entered into the REDCap data management system³⁰ by using unique study identification numbers so that study personnel remained blinded to the identity of the participants.

步驟 3：研究結果

Table 2
Repeated measures before and after the intervention

Category	Intervention group (n = 13)			Control group (n = 14)		
	Before	After	<i>P</i>	Before	After	<i>P</i>
HADS: anxiety scores, median score (25th-75th quartiles)	12 (10-13)	12 (10-13)	.62	11 (10-12)	11 (10-12)	.87
Positive for symptoms of anxiety on HADS, %	100	100		100	92	
HADS: depression scores, median score (25th-75th quartiles)	10 (8-13)	9.0 (7-10)	.03	10.0 (9-11)	9.0 (8-11)	.06
Positive for symptoms of depression on HADS, %	69	54		85	69	
MBI: emotional exhaustion, median score (25th-75th quartiles)	9 (5-16)	13.0 (8-28)	.14	10.0 (7-15)	25.0 (13-28)	.51
Positive for emotional exhaustion, %	69	38		92	69	
MBI: depersonalization, median score (25th-75th quartiles)	12.0 (7-13)	9 (5-16)	.09	12 (7-13)	10 (7-15)	.52
Positive for depersonalization, %	69	62		85	77	
MBI: lack of personal accomplishment, median score (25th-75th quartiles)	11 (10-13)	37 (30-42)	.61	12 (11-13)	32 (28-40)	.31
Positive for lack of personal accomplishment, %	77	69		77	69	
PTSD symptom score, median score (25th-75th quartiles)	11.0 (5-18)	2.0 (3-10)	.01	8.0 (4-16)	7.0 (3-10)	.02
CD-RISC, median score	71	78	.05	72	79	.03

Abbreviations: CD-RISC, Connor-Davidson Resilience Scale; HADS, Hospital Anxiety and Depression Scale; MBI, Maslach Burnout Inventory; PTSD, posttraumatic stress disorder.



步驟 3：研究結果

Table 3
Satisfaction with intervention^a

Category	Likert score, mean (range)			
	Introductory session	Counseling	Writing	Exercise
Would you <i>recom-mend</i> this training to another nurse?	4 (3-4)	3 (3-4)	4 (2-4)	4 (3-4)
How <i>satisfied</i> are you with the instruction that you received?	3 (3-4)	3 (3-4)	4 (2-4)	4 (3-4)
Did the training help you <i>deal more effec-tively</i> with work?	3 (3-4)	3 (2-4)	3 (1-4)	4 (3-4)
Overall, general <i>satisfaction</i> with this training.	3 (3-4)	3 (3-4)	3 (1-4)	4 (3-4)

^a Scored on a Likert scale of 1 to 4: 4 = excellent, 3 = good, 2 = fair, 1 = poor.



Conclusion

- ▶ A multifaceted resilience training program for ICU nurses was both feasible and acceptable.
- ▶ A sufficiently powered, randomized clinical trial is needed to assess the effect of the intervention on improving individuals' level of resilience and improving psychological outcomes such as symptoms of anxiety, depression, burnout syndrome, and PTSD.



I ♥ my job

討論：加護病房是否應安排多元化的彈力訓練計畫以協助護理師人員回復原動力？



A rectangular, light-brown cardboard tag with a hole on the left side, through which a piece of dark twine is threaded. The tag is placed on a rough, light-colored wooden surface. Several bright green, serrated leaves are scattered around the tag, some in the foreground and some in the background, creating a natural, rustic feel. The text "Thank you!" is written in a black, cursive script on the tag.

Thank
you!