



Hypertension Seoul 2022

In Conjunction with the 57th Scientific Meeting of the Korean Society of Hypertension

2022. 11. 4 (Fri) - 5 (Sat) | Conrad Hotel, Seoul, Korea



Emotional State of Stress and Coping Strategies in Newly-Diagnosed Hypertensive Young Adults; A Descriptive Study

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WHAT DO WE KNOW

- Prevalence of hypertension between 18-39 years in USA is 7.3%
- Hypertension at young age (YOH) increases risk of cardiovascular event in middle age
- Known risk factors of YOH include prematurity, fetal growth restriction, mother with hypertensive disease of pregnancy, low birth weight
- High stress is associated with hypertension in general population
- Current recommendation for YOH include lifestyle changes but not stress management

WHAT WE DON'T KNOW

Do young adults with newly-diagnosed hypertension have abnormal stress level?
What are the coping strategies that they adopt?



OBJECTIVE

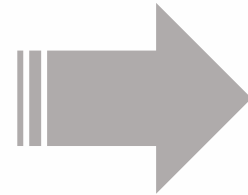
To evaluate the emotional state of STRESS and coping strategies adopted by young adults with newly-diagnosed hypertension.





Ethical approval

- ✓ IIUM (IREC544)
- ✓ Ministry of Health (NMRR-16-2572-32869)



n = 115

was recruited



Study design:

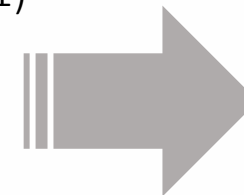
Observational cross-sectional study in Kuantan, Pahang, Malaysia

Inclusion criteria

- ✓ Age 18-45 years
- ✓ Was never diagnosed with hypertension and not on any anti-hypertensive medication
- ✓ Blood pressure $\geq 140/90$ mmHg on TWO (2) separate occasion as per JNC7².

Subjects completed

- ✓ 21-items Depression Anxiety Stress Scale (DASS-21)
- ✓ Abbreviated Coping Orientation to Problems Experiences (Brief-COPE) Inventory



Data analysis

- ✓ Tool: IBM SPSS 26.0
- ✓ Stress domain score > 14 considered as abnormal
- ✓ Descriptive analysis using mean (sd) or n (%)





Sociodemographic	Young adults with newly-diagnosed hypertension (YOH) n = 115		P-value
	Normal stress (Stress score \leq 14) (n = 87)	Abnormal stress (Stress score $>$ 14) (n = 28)	
	<i>Mean (sd)</i>		
Age (year)	35.9 (6.6)	34.0 (7.4)	0.205
Body mass index (kg/m ²)	29.7 (5.7)	29.4 (5.7)	0.825
Systolic blood pressure (mmHg)	143 (12)	144 (14)	0.793
Diastolic blood pressure (mmHg)	97 (8)	98 (9)	0.405
	<i>n (%)</i>		
Male	62 (71.3)	16 (57.1)	0.172
Unemployed	11 (12.6)	6 (21.4)	0.357
Less than tertiary education	60 (69.0)	19 (67.9)	1.000



Results



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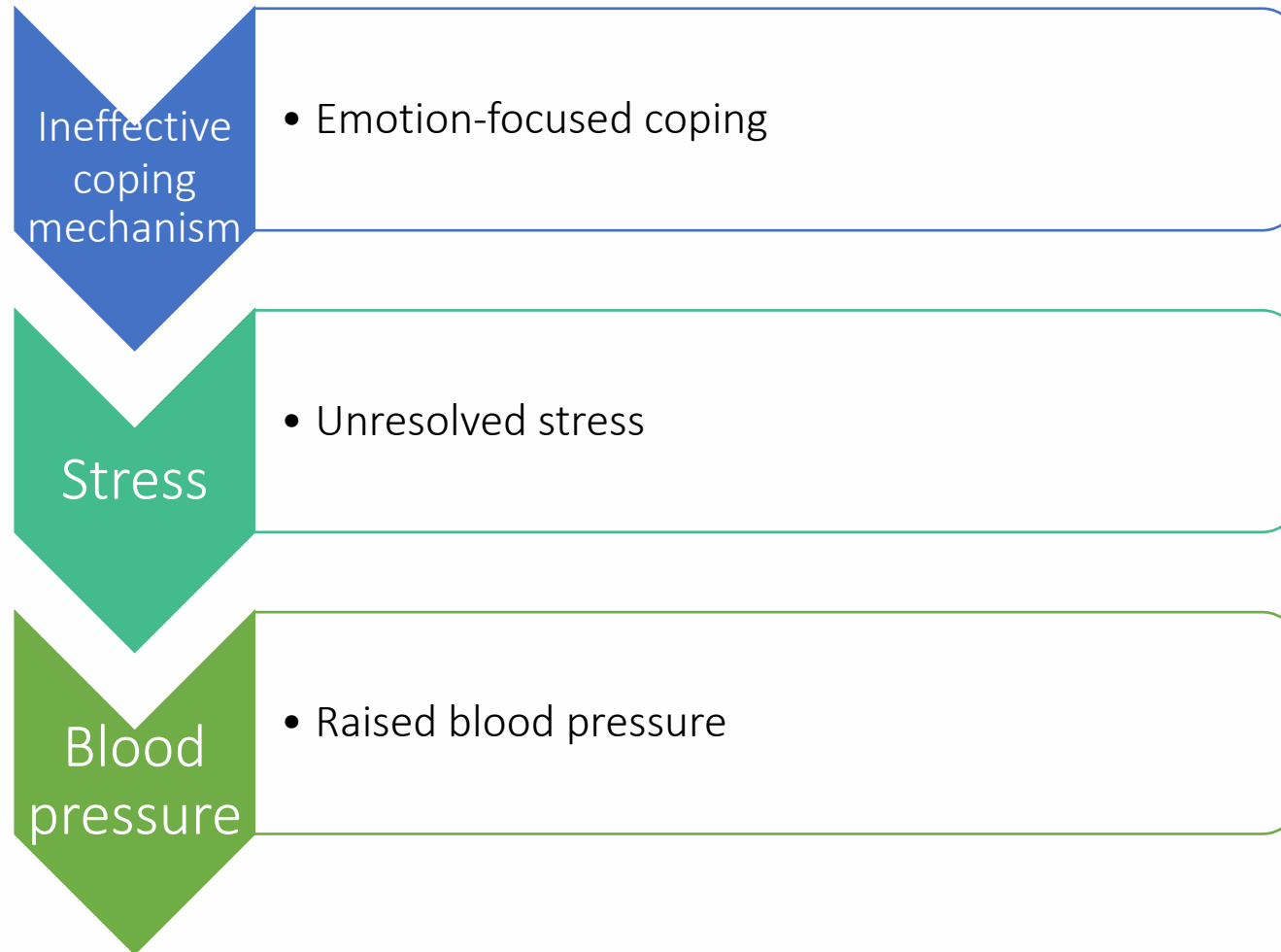
Coping mechanism	Young adults with newly-diagnosed hypertension (YOH) n = 115		P-value
	Normal stress (Stress score \leq 14) (n = 87)	Abnormal stress (Stress score >14) (n = 28)	
	Mean (sd)		
Self-distraction	5.31 (1.13)	5.29 (1.18)	0.921
Use of instrumental support	5.13 (1.28)	5.14 (1.18)	0.952
Active coping	3.55 (0.83)	3.89 (1.17)	0.092
Denial	3.74 (0.74)	3.68 (0.91)	0.737
Substance use	5.56 (1.25)	5.46 (1.23)	0.715
Emotional Support	3.77 (1.33)	4.39 (1.32)	0.033
Behavioral disengagement	3.69 (1.26)	4.36 (1.22)	0.016
Venting	4.59 (1.26)	4.86 (1.43)	0.341
Positive reframing	5.54 (1.30)	5.25 (1.21)	0.299
Planning	4.68 (0.87)	5.07 (0.77)	0.035
Humor	4.83 (1.04)	5.32 (0.95)	0.027
Acceptance	5.83 (1.16)	5.50 (1.04)	0.186
Religion	3.53 (1.27)	4.29 (1.30)	0.007
Self-blame	4.78 (0.80)	5.11 (0.92)	0.073





Coping mechanism	Young adults with newly-diagnosed hypertension (YOH) n = 115		P-value
	Normal stress (Stress score \leq 14) (n = 87)	Abnormal stress (Stress score $>$ 14) (n = 28)	
	Mean (sd)		
Emotion-focused strategies	23.49 (4.16)	24.75 (3.84)	0.160
Dysfunctional coping strategies	27.67 (4.21)	28.75 (4.55)	0.248
Problem-focused strategies	13.36 (2.30)	14.11 (2.01)	0.125





Conclusions



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- ✓ Young adults with newly-diagnosed hypertension (YOH) may or may not have abnormal stress level
- ✓ YOH with abnormal stress tend to use less appropriate coping strategies e.g. emotional-focused strategies
- ✓ Recommendation: To reinforce YOH to adopt better coping strategies, e.g. problem-oriented strategies to deal with stress.
- ✓ Further study: To study the mediating or moderating effect of coping strategy on stress and blood pressure



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References



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Best e-Poster Exhibition Award

Name : Wan Fatein Nabeila Wan Omar

Affiliation : International Islamic University Malaysia,
Malaysia

Title : Emotional State of Stress and Coping Strategies in Newly-Diagnosed Hypertensive Young Adults; A Descriptive Study

On behalf of the organizing committee of
the 57th Scientific Meeting of
the Korean Society of Hypertension,
We grant this award with great pleasure to
you for Best e-Poster Exhibition Award.

November 5, 2022

Sagn-Hyun Ihm

President

The Korean Society of Hypertension

Jin Ho Shin

Director, Scientific Committee

The Korean Society of Hypertension

Emotional State of Stress and Coping Strategies in Newly-Diagnosed Hypertensive Young Adults; A Descriptive Study

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Introduction This study aims to evaluate the emotional state of stress and coping strategies in newly-diagnosed hypertension in young adults (YOH) according to the presence of emotional stress symptoms.

Methods In a cross-sectional study in Kuantan, Pahang, Malaysia, we evaluated one hundred and fifteen individuals aged between 18 to 45 years. Individuals who had never been diagnosed with hypertension and satisfied the systolic blood pressure reading of at least 140 mmHg and/or diastolic blood pressure of at least 90 mmHg were included. The stress state was assessed using the 21-items Depression Anxiety Stress Scale and the abbreviated Coping Orientation to Problems Experiences (Brief-COPE) Inventory. A stress domain score above 14 was considered abnormal.

Results There was no significant difference in age, systolic blood pressure, diastolic blood pressure, employment status, and education status between YOH with normal and abnormal stress levels. YOH with abnormal stress ($n = 28$, 24.4%) presented higher use of dysfunctional coping strategy which is behavioural disengagement ($p = 0.016$). However, they also used emotional-focused coping strategies including use of emotional support ($p = 0.033$), humor ($p = 0.027$) and religion coping ($p = 0.007$). Besides that, YOH with abnormal stress also displayed a higher planning score ($p = 0.035$) as a problem-oriented coping strategy.

Conclusion These findings suggested that YOH with higher stress tend to use less appropriate coping strategies. It is recommended to reinforce the adoption of problem-oriented strategies to deal with stress to avoid the detrimental effects of emotional coping on blood pressure levels.

e-Poster Exhibition

- PE-01** Emotional State of Stress and Coping Strategies in Newly-Diagnosed Hypertensive Young Adults; A Descriptive Study
Wan Fatein Nabeila Wan Omar(Malaysia)
- PE-02** Probiotics and synbiotics supplementation effect on blood pressure : a systematic review and meta-analysis
Siti Zahra Afifah(Indonesia)
- PE-03** A study of obstructive sleep apnea syndrome in young hypertensive patients at Hue University of Medicine and Pharmacy Hospital
Hao Doan Thi Thien(Vietnam)
- PE-04** Large-scale transcriptome-wide association studies uncover new genes, tissues and therapeutic targets for blood pressure
Xiaoguang Xu(United Kingdom)
- PE-05** Gender difference in good practice in the management of hypertensive disorders in pregnancy among primary care physicians in Malaysia: a web-based cross-sectional study
Ching Siew Mooi(Malaysia)
- PE-06** Hypertension Risk Classification Based on Weighted Local Mean-Based k-Nearest Neighbors Algorithm
Rifaldy Fajar(Italy)
- PE-07** The Association Between Heart Exercise and Blood Lipid Profile in Indonesian Chronic Disease Management Program (Prolanis Club) Patient
Pratiwi Rulanny(Indonesia)
- PE-08** Perception and Hesitancy in practicing healthy living to prevent hypertension among young adults in Malaysia
Siew-Keah Lee(Malaysia)
- PE-09** Study of Risk Factors for Hypertension in Urban and Sub-Urban Societies in Indonesia
Zulfa Saumia(Indonesia)





Abstract Book

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Certificate of Attendance

On behalf of The Korean Society of Hypertension(KSH),
we hereby certify that

attend Hypertension Seoul 2022
which is held from 4 to 5 November, 2022 in Seoul, Korea.

Sang-Hyun Ihm
President

The Korean Society of Hypertension

Jinho Shin
Director of Scientific Committee
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