# Herbal therapy and quality of life in hypertension patients at health facilities providing complementary therapy

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## Abstrak

***Latar belakang:*** *Hipertensi merupakan faktor risiko utama penyakit kardiovaskular yang berpengaruh penting terhadap beberapa organ (jantung, otak, ginjal dan pembuluh darah). Penelitian ini bertujuan untuk untuk mengidentifikasi faktor dominan yang berhubungan dengan kualitas hidup penderita hipertensi.*

***Metode:*** *Disain penelitian ini adalah cross-sectional dan menggunakan data sekunder. Data berasal dari catatan medis pasien hipertensi yang diberikan pengobatan komplementer di fasilitas kesehatan di provinsi: DKI Jakarta, Jawa Tengah, Jawa Barat, Jawa Timur, Bali, Banten, dan Sumatera. Wawancara dan pencatatan catatan medis pasien dilakukan oleh 77 dokter praktek jamu. Pengukuran kualitas hidup pada pasien hipertensi dengan menggunakan kuesioner Short Form 36 WHO. Faktor risiko yang berhubungan dengan kualitas hidup pada pasien hipertensi dianalisis menggunakan regresi Cox.*

***Hasil:*** *Sebanyak 187 subjek pada penelitian ini. Proporsi subjek yang memiliki kualitas hidup yang baik adalah 51,9% (97/187). Faktor risiko dominan yang berhubungan dengan kualitas hidup pada pasien hipertensi adalah tingkat pendidikan dan jenis pengobatan. Dibandingkan dengan subjek yang memiliki tingkat pendidikan rendah, subjek yang tingkat pendidikan menengah dan tinggi memiliki risiko 83% lebih tinggi mempunyai kualitas hidup yang baik. Subjek yang mendapatkan jenis pengobatan konvensional dan herbal/tradisional berisiko 29% lebih tinggi mempunyai kualitas hidup yang baik.*

***Kesimpulan:*** *Subjek yang memiliki tingkat pendidikan yang lebih tinggi dan mendapatkan pengobatan konvensional dan herbal/tradisional berisiko mempunyai kualitas hidup yang baik.* (**Health Science Journal of Indonesia 2016;7:32-6**)

***Kata kunci:*** *kualitas hidup, pasien hipertensi*

## Abstract

**Background:** Hypertension is a major cardiovascular risk factor that had serious consequences to some organs (heart, brain, kidneys and blood vessels). This study aimed to investigate the dominant risk factors that related to quality of life in hypertension subjects.

**Methods:** This cross-sectional study used secondary data from medical records in hypertension subjects health care facilities in provinces of: DKI Jakarta, Central Java, West Java, East Java, Bali, Banten, and South Sumatra which used complementary medicine for treatment patients. The interview and recording of patient's medical records was done by 77 medical doctors who practicing herbal medicine. The quality of life based on Short Form 36 WHO questionnaire for getting data quality of life of hypertension patients. Risk factors that related to quality of life in hypertension patients were analyzed using Cox regression.

**Results:** Total patients had been collected were 189 subjects. The proportion of those who had good quality of life were 51.9% (97/187). Dominant risk factors related to quality of life in hypertension patients were level of education and type of treatment. Compared with those who had low education level, those who had middle and high education level had 83% more risk to be good quality of life. Furthermore, in terms of type of treatment, those who had pharmaceutical and herbal/traditional had 29% more risk to be good quality of life.

**Conclusion:** Hypertension subjects who had higher level of education and had pharmaceutical and herbal/traditional had good quality of life. (**Health Science Journal of Indonesia 2016;7:32-6**)

**Keywords:** quality of life, hypertension patients

At least 7.1 million people in worldwide die each year as a consequence of hypertension.[1] Based on Riskesdas data Indonesia in 2013, prevalence of hypertension in Indonesian population who were aged ≥18 years was 25.8 percent.[2]

Hypertension is a major cardiovascular risk factor that can result in serious consequences for some organs (heart, brain, kidneys and blood vessels). It is considered a serious public health problem due to its chronicity, high costs of hospitalization, and for being the cause of early retirement and disability.[1]

The main risk factors for hypertension include: heredity, age, ethnicity, obesity, stress, sedentary lifestyle, alcohol consumption, gender, use of contraceptives and high sodium intake.[3,4,5] Other factors, both social and physical, are also emphasized not as causes of hypertension, but because they are often associated with it (low educational level, high cholesterol and diabetes mellitus).[3]

Quality of life relating to health is defined as the measurement of perceived functional status, impact, limitations, conditions and treatment perspective that patients with chronic diseases and heart disease have a cultural context and value system.[4]

Studies show that the side effects of hypertension treatment are associated with lower rates of acceptance to follow the treatment and drug treatment abandonment, and may affect the quality of life (QOL) of these patients. The WHO conceptualizes quality of life as "an individual's perception of their position in life, in the context of culture and system of values in which they live and in relation to their goals, expectations, standards and concerns."[5]

This study aimed to identify risk factors that related to quality of life in hypertension patients who get treatment with Pharmaceutical or herbal/traditional health

**METHODS**

This cross-sectional stud in health care facilities (hospital, community health service, herbal clinic, and private practitioners) in provinces of: DKI Jakarta, Central Java, West Java, East Java, Bali, Banten, and South Sumatra which used complementary medicine for treatment patients in 2014. The selection of health care facilities was conducted by purposive, which choose seven provinces that have used complementary medicine for treatment patients.

The selection of sample was conducted base on criteria that patients who have been diagnosed hypertension by a doctor and get complementary medicine for treatment. The criteria of diagnosis of hypertension refers to JNC (Joint National Committee) VII 2003, that measurement of systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg.[6]

Data collection was done by copying the data medical record subject into the questionnaires. The data consisted of demographic, anamnesis, diagnosis, type of treatment, and assessment of the quality of life of subjects.

The quality of life based on Short Form 36 WHO questionnaire for getting data quality of life of hypertension patients. The SF-36 (The Medical Outcomes Study 36-Item ShortForm Health Survey) is a tool widely used to reflect the QOL of patients in a wide variety of populations, including aspects such as function, dysfunction and emotional and physical well-being.

Quality of life questionnaire consists of four aspects; assessment of physical, psychological, spiritual, and social aspects. Physical aspects such as the value of the severity of the complaint, and how the patient dependent on others. Psychological aspects such as feeling sad/depressed, and worried about the conditions suffered. The spiritual aspect such as the spirit of life, and the meaning of life, would be a burden to others in the family or thereabouts.

Results of assessment of quality of life was a score between 1 and 4. The number of scores was categorized into 3 categories; poor, moderate and good. If the total score of 8-16, it was categorized as bad, if the total score of 17-24, it was categorized as moderate, and if a total score of 25-32 it was categorized as good.

Risk factors that related to quality of life in hypertension patients were analyzed using Cox regression.

Ethical clearance was granted from the Research Ethical Commission of Institute for Health Research and Development, Ministry of Health.

**RESULTS**

Table 1 showed that the proportion of those who had good quality of life were 51.85% (97/187). Those who had good quality of life and less/middle quality of life were similarly distributed with respect to age

group, occupation status, and heath care facility. However, compared with the labor and occupation status had more likely to be good quality of life.

Table 2, the final model, shows that level of education and type of treatment as dominant factors related to quality of life. Compared with those who had low education level, those who had middle and high education level had 83% more risk to be good quality of life. Furthermore, in terms of type of treatment, those who had pharmaceutical and herbal/traditional had 29% more risk to be good quality of life.

## DISCUSSION

The purpose of study was to identify potential risk factors affecting quality of life in hypertension subjects. In health, interest in the concept of quality of life is relatively recent and stems, in part, the new paradigms that have influenced policies and practices in the industry for decades. Thus health and disease processes configure understood as a continuum, related to economic, sociocultural, experience and personal lifestyles.

Table 1. Several characteristics of subjects and risk of quality of life

| Variabel | Quality of life | | | | Crude relative risk | 95% confidence interval | P |
|---|---|---|---|---|---|---|---|
| | Less/middle (n=90) | | Good | (n=97) | | | |
| | n | % | n | % | | | |
| Gender | | | | | | | |
| Male | 34 | 43.04 | 45 | 56.96 | 1.00 | Reference | |
| Female | 56 | 51.85 | 52 | 48.15 | 1.43 | 0.79 -2.55 | 0.234 |
| Age groups (years) | | | | | | | |
| >=50 | 59 | 46.09 | 69 | 53.91 | 1.00 | Reference | |
| < 50 | 31 | 52.54 | 28 | 47.46 | 1.30 | 0.70 - 2.40 | 0.413 |
| Level of education | | | | | | | |
| High | 9 | 25 | 27 | 75 | 1.00 | Reference | |
| Middle | 40 | 48.19 | 43 | 51.81 | 2.80 | 1.17 - 6.65 | 0.021 |
| Low | 41 | 60.29 | 27 | 39.71 | 4.56 | 1.86 - 11.17 | 0.001 |
| Occupation status | | | | | | | |
| Unemployed | 15 | 41.67 | 21 | 58.33 | 1.00 | Reference | |
| Military/police/civil Servants | 4 | 26.67 | 11 | 73.33 | 0.51 | 0.14 – 1.91 | 0.317 |
| Private employees | 32 | 47.76 | 35 | 52.24 | 1.28 | 0.56 – 2.90 | 0.554 |
| Labor and other | 39 | | 30 | | 1.82 | 0.80 – 4.11 | 0.150 |
| Health care facility | | | | | | | |
| Hospital | 4 | 44.44 | 5 | 55.56 | 1.00 | Reference | |
| Herbal clinic | 44 | 57.14 | 33 | 42.86 | 1.67 | 0.41 - 6.69 | 0.471 |
| Private practitioners | 25 | 37.88 | 41 | 62.12 | 0.76 | 0.19 - 3.11 | 0.705 |
| Community health Service | 17 | 48.57 | 18 | 51.43 | 1.18 | 0.27 - 5.15 | 0.825 |

Table 2. Several dominant factors and risk of quality of life

| Variabel | Quality of life | | | | Adjusted relative risk* | 95% confidence interval | p |
|---|---|---|---|---|---|---|---|
| | Less/middle | | Good | | | | |
| | n | % | n | % | | | |
| Level of education | | | | | | | |
| Low | 41 | 60.29 | 27 | 39.71 | 1.00 | Reference | |
| Middle | 40 | 48.19 | 43 | 51.81 | 1.26 | 0.88 – 1.81 | 0.202 |
| High | 9 | 25 | 27 | 75 | 1.83 | 1.29 – 2.59 | 0.001 |
| Type of treatment | | | | | | | |
| Herbal/traditional health | 61 | 54.46 | 51 | 45.54 | 1.00 | Reference | |
| Pharmaceutical and herbal/traditional health | 29 | 38.67 | 46 | 61.33 | 1.29 | 0.99 – 1.69 | 0.057 |

*Adjusted each other between variables listed on this paper

Quality of life is an important indicator to evaluate hypertensive treatment outcomes. A recent systematic review of 20 studies indicated that hypertensive patients had a lower quality of life compared with normotensive people.[7] The Quality 0f life of hypertensive patients tends to be worse among those with co-morbidity.[8,9,10]

The proportion of those who had good quality of life were 51.85% (97/187). Those who had good quality of life and less/middle quality of life were similarly distributed with respect to age group, occupation status, and heath care facility. However, compared with the labor and occupation status had more likely to be good quality of life.

The findings of other study showed that hypertensive males, younger individuals, those with higher income and level of education and who had a partner had better quality of life.[11]

Multivariate analysis showed that level of education and type of treatment were to dominant factors related to quality of life. Compared with those who had low education level, those who had middle and high education level had 83% more risk to be good quality of life. Furthermore, in terms of type of treatment, those who had pharmaceutical and herbal/traditional had 29% more risk to be good quality of life.

A higher level of education also meant higher quality of life when these were compared to subjects who had not finished elementary school.[11] The level of education influences the ability to understand information, which favors knowledge on the disease and treatment adherence.[9] Therefore, subjects with a higher level of education may have better quality of life.

Treatment of the disease state of the patient by choosing the suitable type of medications is a key strategy for the prevention of cardiovascular disease. Adverse effects are commonly a cause of therapy discontinuation in many conditions including hypertension. A treatment regimen that maintains patients' quality of life is more likely to be taken regularly, with potential additional benefits. Pharmacological interventions in patients with established hypertension with many medications.[12]

In conclusion, this study has identify factors affection quality of life in hypertension subjects. Hypertension subjects who had higher level of education and had pharmaceutical and herbal/traditional had more risk to be good quality of life. The strategies for the implementation of preventive measures of hypertension depend on the performance of interdisciplinary teams, adoption of public policies, community activities, organization and planning of health services. It is necessity for health professionals to put more attention to quality of life of hipertension patients, and develop of drugs that not only provide blood pressure control, but also show beneficial effects on quality of life.

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