

## Research Article

## The Menopausal Symptoms of Paramedics at a Tertiary Care Center

*Gejala Menopause Paramedis pada suatu Layanan Kesehatan Tersier*

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## Abstract

**Objective:** To assess paramedic menopausal symptoms on the inpatient unit and outpatient unit.**Methods:** This was a cross sectional study. Data collect by fill the questioner, the questioner fill by menopausal paramedic on Prof. Dr. R. D. Kandou Manado Hospital from October 2016 to January 2017. Data were analyzed using SPSS 22.0 for Windows.**Results:** Of 60 paramedics, 30 were divided to inpatient unit and the other 30 were divided to outpatient unit. By the menopause rating scale, somatic and urogenital complaint in statistical test have no significant differences. Psychology complaint with a moderate complaints on inpatient unit have 19 paramedic (63%) and 12 paramedic (40%) on outpatient paramedic, in statistical have a significant differences ( $\chi^2=9.62$ ,  $p=0.022$ ). On the total score menopausal complaints, the moderate complaints 18 paramedic (60%) on the inpatient unit and the minor complaints 21 paramedic (70%) on the outpatient unit, in statistical have a significant differences ( $\chi^2=6.97$ ,  $p=0.031$ ).**Conclusion:** There is no significant difference in somatic and urogenital complaints on paramedic inpatient unit and outpatient unit. There is a significant difference in psychological complaints and total score menopausal complaints on paramedic inpatient unit and outpatient unit.

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**Keywords:** menopause, menopause rating scale, paramedic

## Abstrak

**Tujuan:** Membandingkan keluhan menopause pada paramedik instalasi rawat inap dan rawat jalan.**Metode:** Penelitian ini adalah deskriptif analitik dengan rancangan potong lintang. Pengumpulan data berupa pengisian kuesioner, kuesioner diisi oleh paramedik instalasi rawat inap dan rawat jalan masa menopause di RSUP Prof. Dr. R.D. Kandou Manado yang memenuhi kriteria inklusi dan eksklusi, penelitian ini dilakukan sejak bulan Oktober 2016 sampai bulan Januari 2017. Data dianalisis dengan SPSS versi 22.0.**Hasil:** Dari 60 orang paramedis yang memenuhi kriteria inklusi, terbagi menjadi 30 paramedis instalasi rawat inap dan 30 paramedis instalasi rawat jalan. Berdasarkan skala menopause skala rating, keluhan somatik dan keluhan urogenital dari uji statistik tidak terdapat perbedaan yang bermakna. Keluhan psikologis dengan keluhan sedang pada paramedik instalasi rawat inap 19 orang (63%) dan 12 orang (40%) pada paramedik instalasi rawat jalan, secara statistik terdapat perbedaan yang bermakna ( $\chi^2=9.62$ ,  $p=0.022$ ). Pada total skor keluhan menopause didapatkan keluhan sedang 18 orang (60%) pada paramedik instalasi rawat inap dan keluhan ringan 21 orang (70%) pada paramedik instalasi rawat jalan, secara statistik terdapat perbedaan yang bermakna ( $\chi^2=6.97$ ,  $p=0.031$ ).**Kesimpulan:** Tidak terdapat perbedaan bermakna pada keluhan somatik dan urogenital paramedik instalasi rawat inap dan rawat jalan masa menopause. Terdapat perbedaan yang bermakna pada keluhan psikologis dan skor total keluhan menopause paramedik instalasi rawat inap dan instalasi rawat jalan masa menopause.

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**Kata kunci:** menopause, menopause rating scale (MRS), paramedik**Correspondence:** Toar A Kumaat. tox2287@yahoo.co.uk

## INTRODUCTION

Menopause, a permanent cessation of the menstrual cycle, is feared by majority of the women worldwide. Several symptoms of menopause can affect daily activities. Unfortunately, most women are not aware of the changes that are caused by menopause. These symptoms occurred due to decreased estrogen levels in women during peri-menopause, menopause, and post menopause.<sup>1</sup>

Each year, approximately 25 million women around the world would enter menopausal phase. Women aged over 50 years around the world increased from 500 million to over one billion in 2030. According to the World Health Organization (WHO), in 2025 the number of older women will increase from 107 million to 373 million in Asian countries.<sup>2</sup> In Indonesia, based on the population census in 2000, the number of women over 50 years old who have entered menopause as many

as 15.5 million people, and in 2020 an estimated 30.3 million person.<sup>3</sup> Data derived from Yasmin Clinic in 2010-2012 suggested that the average age of menopause was 51.38.<sup>4</sup> Deddy et al, in a study on the quality of life menopausal women with menqol scale on Manado in 2015 mention that the average age of menopause in Manado was 50.81 and that most complaints were physical complaints (93% of 563 subjects).<sup>5</sup>

There are various scales to measure level of the menopause complaints, but menopause rating scale (MRS) is the most efficient scale compared to the other scales because the scale only 11 assessment. Menopause rating scale (MRS) was developed in the early 90s to measure level of the complaints, and was associated with menopause age, by assessing a number of specific symptoms. To determine the scale of the complaints or symptoms, statistical methods are used to identify the three dimensional complaints: complaints somatic, psychological, and urogenital.<sup>6</sup>

Female paramedics are not spared from the menopause. Paramedics as a workers in the hospitals, paramedics are in charge of health services in the form of nursing care such as bio-socio-cultural and spiritual to the patient, family, and community either healthy or sick. Too much complaints and requests from the patients would increase paramedics workload and stress levels. Not only from the patient who makes paramedics exhaustion of the physical, emotional and mental but from patient's family and colleagues who can not cooperate.<sup>7</sup> Several studies suggested that menopausal complaints with a high workload have a many complaints compared a low workload.<sup>8</sup> This study is aimed to investigate the difference between the complaints and severity of complaints among paramedics inpatient unit and outpatient unit on menopause phase.

## METHODS

This was across sectional study. Data were collected by having the paramedics filling the questionnaire, the questioner fill by menopausal phase paramedics inpatient unit and outpatient unit in the Prof. Dr. R. D. Kandou Manado hospital.

This study was conducted at Prof. Dr. R.D. Kandou Manado hospital, from October 2016 to January 2017. The sample required was 60 paramedics menopause divided into 30

paramedics inpatient and 30 paramedics outpatient. The sample is all the menopause female paramedic in the inpatient unit and outpatient unit of the Prof. Dr. R.D. Kandou Manado hospital during the research period and meet the inclusion and exclusion criteria.

This study assessed with Menopause Rating Scale (MRS). Menopause Rating Scale (MRS) consists of 11 items that assess symptoms of menopause which is divided into three sub-scales: somatic - hot flushes, heart discomfort, sleep disorders and muscle and joint problems (items 1-3 and 11), psychological - depressive mood, irritability, anxiety and mental and physical fatigue (items 4-7), and urogenital problems - sexual, bladder problems and vaginal dryness (8-10 items). Each item can be judged by the subject from 0 (none) to 4 (1 = mild, 2 = moderate, 3 = severe, 4 = very severe). Per each subscale total score is the sum of each item assessed contained in subscale. MRS total score is the sum of the scores obtained for each subscale. If found severe menopausal complaints on paramedics it will be counseling for menopause clinic in the Prof. Dr. R. D. Kandou Manado hospital.

Data collection by the researcher. All statistical analyses were performed using SPSS version 22.0.

## RESULTS

This study was conducted during the period of October 2016 to January 2017 at the Prof. Dr. R. D. Kandou Manado hospital on menopausal paramedics inpatient unit and outpatient unit, with a total sample of 60 menopausal paramedics, divided into 30 menopausal paramedics inpatient unit and 30 outpatient menopausal paramedics out patient unit.

**Table 1.** Characteristics of the Subjects

Variable	Inpatient Unit		Outpatient Unit	
	n	%	n	%
<b>Age (Years)</b>				
45-50	5	17	3	10
51-55	25	83	27	90
<b>Marital Status</b>				
Married	26	86	25	83
Not Married	2	7	2	7
Widow	2	7	3	10

<b>Education</b>				
SPK	7	23	5	17
Diploma	12	40	19	63
S-1	11	37	6	20
<b>Parity</b>				
Nullipara	3	10	5	17
Primipara	10	33	12	40
Multipara	17	57	13	43
Grande Multipara	0	0	0	0
<b>BMI</b>				
Normoweight	20	67	16	53
Overweight	8	26	11	37
Obese	2	7	3	10

## DISCUSSION

Table 1 explained about the characteristic of paramedics at menopause in-patient clinic and out-patient clinic. There are about 17% of paramedic at menopause in-patient clinic, and about 10% at out-patient clinic, based on age group of 45-50 years old. The most get in are paramedics on the age group of 51-55 years old, who are about 83% at in-patient clinic and 90% at out-patient clinic.

The menopausal age of paramedics in this study are suitable with some studies and datas. The datas were established in Klinik Yasmin on 2010-2012 with the average of menopause age is 51.38 years.<sup>4</sup> In Suryanto et al study about the quality of life in menopause women at menopause out-patient clinic RSUP Prof. Dr. R. D. Kandou Manado with cross sectional study on 2011 mentioned that the average age of menopausal women in Manado is 51 years old.<sup>9</sup> A study by Deddy et al on 2015 found that the average age of menopause women in Manado is 50.81.<sup>5</sup>

The marital status of paramedics at in-patient clinic which also being the subject of this study, with most subjects status are marriage (86%), also the paramedics at out-patient clinic with the most status are marriage (83%). Based on the level of education we found that most of the paramedic at in-patient clinic are diploma (40%) and most in out-patient clinic are also diploma (63%). Gold E.D. et al study on 2001 found no significant association between education as well as marital status and menopause. Moreover, they found no effect of heavy work with early menopause.<sup>10</sup>

Based on number of children (parity), the most get in are paramedics with multi parity (57%) at menopause in-patient clinic, which also happened at out-patient clinic with the most get in are multi parity (43%). In some studies races, parity and body heights were not affecting the age of menopause. But, according to Herman et al on 2002 based on two cross sectional studies found that the longer of menopause age occurred because of the number of parity.<sup>11</sup>

Based on BMI, most of the paramedics at in-patient and out-patient clinic were normo-weight. The BMI of in-patient clinic paramedics with 67% were normoweight and the BMI of out-patient clinic paramedics with 53% were normoweight. As observed with BMI, some studies revealed that women with malnutrition or thin tend to have

**Table 2.** Comparison Table the Severity of Complaints

Variable	Inpatient Unit		Outpatient Unit		p value
	n	%	n	%	
<b>Somatic Complaints</b>					
Asymptomatic (0-2)	6	20	11	37	
Mild (3-4)	8	27	12	40	$X^2=5.79$
Moderate (5-8)	16	53	7	23	$p=0.055$
Severe ( $\geq 9$ )	0	0	0	0	
<b>Psychological Complaints</b>					
Asymptomatic (0-1)	4	13	9	30	
Mild (2-3)	5	17	12	40	$X^2=9.62$
Moderate (4-6)	19	63	8	27	$p=0.022$
Severe ( $\geq 7$ )	2	7	1	3	
<b>Urogenital Complaints</b>					
Asymptomatic (0)	6	20	10	34	
Mild (1)	18	60	16	53	$X^2=1.52$
Moderate (2-3)	6	20	4	13	$p=0.47$
Severe ( $\geq 4$ )	0	0	0	0	

**Table 3.** Total Score Table of Complaints

Menopause Complaints	Inpatient Unit		Outpatient Unit		p value
	n	%	n	%	
Asymptomatic (0-4)	1	3	1	3	
Mild (5-8)	11	37	21	70	$X^2=6.97$
Moderate (9-16)	18	60	8	27	$p=0.031$
Severe ( $\geq 17$ )	0	0	0	0	

early menopause. This happened as the result of body fat which produce estrogen, so malnourished women or thin women with less body fat will tend to have early menopause.<sup>11</sup>

Table 2 explains about the comparison of symptoms severity at menopause in-patient and out-patient clinic paramedics. These symptoms severity divided into three complaints: somatic complaints, psychological complaints, and urogenital complaints.

The comparison of somatic complaints at in-patient clinic paramedics with the most complaints are moderate complaints (53%), while paramedics at out-patient clinic also having moderate complaints (23%). Paramedics at menopause out-patient clinic with the most complaints are mild complaints (40%), while at menopause in-patient clinic are mild complaints (27%). According to statistic test with Chi-square found the value  $p > 0.05$  ( $p = 0.055$ ), this showed that there is no significant correlation in somatic complaints between paramedics at both menopause in-patient and out-patient clinic. The result of statistic test in this study is convenient with the study of Chuni et al on 2011, which they found that work load was not affect the somatic complaints in menopause, because in menopause, somatic complaints is caused by hormonal changing which is caused by the reduction of estrogen level which followed by the escalation of FSH and LH level. The symptoms usually happened between 1 to 2 years after menopause at most women, but can continue until 10 years or more at some women.<sup>12</sup>

The comparison of psychological complaints in paramedics at menopause in-patient clinic with the most complaints are moderate (63%), and paramedics at menopause out-patient clinic also with moderate complaints (27%). Paramedics at out-patient clinics with the most complaints are mild (40%), and paramedics at in-patient clinic with mild complaints are 17%. Based on statistic test with Chi-square found that  $p < 0.05$  ( $p = 0.022$ ), this showed that there is significant correlation of psychological complaints between paramedics at menopause in-patient and out-patient clinic. This study is not corresponding with the study from Siregar MFG et al. In Siregar MFG et al study on 2010 showed that statistically, there is no significant correlation in psychological complaints between paramedics in menopause age. This condition perhaps is caused by the educational

background in some correspondents and also the work scope in health department which caused them to understand the process of menopause, so they can accept the condition that can affect the psychological aspect cause by menopause age itself.<sup>8</sup> While according to Chuni et al on 2011, there are statistically significance different in psychological aspects. Psychological complaints that emerge in menopause age not fully caused by the changing of hormonal, but related to physical problems, work load, and the health of menopause women.<sup>12</sup>

The comparison of urogenital complaints in paramedics at menopause in-patient clinic with the most complaints are mild complaints (60%), also at out-patient clinic with most are mild complaints (53%). Based on statistic test with Chi-square found that  $p > 0.05$  ( $p = 0.47$ ) this showed that there is no significant correlation between urogenital complaints in paramedics at menopause in-patient and out-patient clinic. This study is corresponding with the study by Safitri A on 2009. In Safitri A study explained that there is no correlation between activity and urogenital complaints in menopause women.<sup>13</sup> While according to Chuni et al, conclude that statistically, urogenital complaints is higher in post menopause group than pre menopause group. There is no statistic differences in menopause women with different work activity. Very low estrogen production in menopause age will lead to atrophy of vaginal mucous surfaces, which is also accompanied by vaginitis, pruritus, dyspareuni, and stenosis. Loss of estrogen will cause the loss of collagen in vagina, adipose tissue, and the ability of holding water. As the vagina wall subside, the rugae will become smooth and vanished. The epithelium in the surface will loss the fibrous outside layer and then diminish into some cell layers and also the ratio of basal cell and superficial cell will reduce. The effect will cause vaginal surface being susceptible to bleed with minimal trauma. Genitourinary atrophy will lead to many symptoms that affect life quality, and causing dyspareuni which also leading to loss of sexual desire.

Table 3 explained about the comparison of total scoring of menopause complaints in paramedics at menopause in-patient and out-patient clinic. It have been found that most complaints in paramedics at in-patient clinic are moderate complaints (60%) while at out-patient clinic most complaints are mild complaints (70%). Based on statistic test

with Chi-square found that  $p < 0.05$  ( $p = 0.031$ ) this showed that there is significant correlation between complaints total score in paramedics at menopause in-patient and out-patient clinic. According to Safitri A, the regular physical activity and social activity will reduce the menopause complaints.<sup>13</sup> Also the study from Febriansyah et al on 2015 said that good physical activity and good life quality will affect the menopause complaints.<sup>5</sup> In this study, heavy work load and higher mental pressure are found in paramedics at menopause in-patient clinic than out-patient clinic. Because of that in this study, we found that paramedics at menopause in-patient clinic are having more menopausal complaints than at out-patient clinic. Chuni et al concluded the same thing where women complaints were based on total score that were measured by Menopause Rating Scale which is in heavier work load group will lead to elevate the menopause complaints.<sup>12</sup>

### CONCLUSION

There is no significant correlation in somatic complaints between paramedics at menopause in-patient clinic and out-patient clinic. Also, there is no correlation between urogenital complaints in paramedics at menopause in-patient clinic and out-patient clinic. There is significant correlation in psychological complaints between paramedics at menopause in-patient clinic and out-patient clinic. Also, there is correlation in total score complaints between paramedics at menopause in-patient clinic and out-patient clinic.

### SUGGESTION

Paramedics should have the education of menopause, so they can avoid stress and heavy physical activity and help to reduce complaints in menopause especially the psychological complaints, so that paramedics can enhance their qualities of life in menopause age. There should be more study to compare the amount of work hours and level of work activity in paramedic at menopause age, so that we can reduce the complaints they experience

in menopause age also will enhance their qualities of life and increase the performance of work between nurses, doctors and patients.

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