GIVING OF ORAL COUNSELING BY PHARMACISTS IMPROVE QUALITY OF LIFE OF HYPERTENSIVE PATIENTS IN RURAL PRIVATE HOSPITAL IN BANTUL DISTRICT YOGYAKARTA

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ABSTRACT

Background: The hypertension prevalence in Indonesia in 2007 is 32.2%. High blood pressure can damage arteries and blood vessels. It can also cause coronary artery disease, kidney failure and stroke. It is expected that the appropriate counseling can improve the quality of life hypertensive patients.

Objective: This study aim to evaluate the quality of life after giving brief oral counseling by a pharmacist.

Methods: This study were conducted with quasi-experimental design. The ambulatory hypertension patients data were collected prospectively during the period of January until April 2013. A total samples of 60 patients were divided into 2 groups, 30 (50%) patients were received counseling (intervention group) and 30 (50%) patients were not received counseling (control group). Exclusion criteria were a deaf and pregnant patients. Data collection were conducted by doing interview and completion of SF-36 questionnaire.

Outcome measured: Quality of life domain in hypertension patients

Results: The results showed that oral counseling intervention by pharmacist could increased quality of life of hipertensive patients. The SF-36 parameters that have higher in intervention group are physical functioning (p=0.002), emotional functioning (p=0.001), social functioning (p=0.013), general health (p=0.008), physical status (p=0.157), pain (p=0.014) and fatigue (p=0.001) in comparison to the control group.

Conclusion: To sum up, the pharmacist intervention by oral counseling can increase the quality of life of hipertensive patients.

Key words: quality of life, hypertension, brief oral counseling, rural hospital
INTRODUCTION

Hypertension is one of the most common health problem in developed and underdeveloped countries (Kearney et al., 2005). The prevalence of hypertension will increase in line with the life style changes such as smoking, obesity, physical inactivity, and psychosocial stress in many countries. The hypertension prevalence in Indonesia in 2007 is 32,2 % (Rahajeng and Tuminah, 2009). Hypertension is a public health problem because of the associated morbidity and mortality cause by cardiovascular disease.

Although there are effective medical therapies for hypertension management, only 37% of hypertensive patients in a 2003–2004 survey were reported to have their blood pressure controlled and it can lead to a huge adverse impact on quality of life (Ong et al., 2007).

Since treatment of chronic diseases is often not curative, but aims to improve the quality of life, limit disease progression, and ameliorate suffering. Pharmacist being active members of the healthcare team can use these instrument in their practice to provide better patient care.

In a recent population based study, hypertension patients were found to have a lower health status compared with non-hypertension patients. Co morbidity with other disease associated with hypertension may influence how patients with hypertension rate their quality of life (Ogunlana et al., 2009).

Poor medication adherence and lack of knowledge and awareness on hypertension are the major reasons for poor blood pressure control which is largely related to deterioration in patient’s quality of life (Cavalcante et al., 2008). It is need an implementation of pharmaceutical care program in the health care center to achieve the optimum therapeutic outcomes that improve patient’s quality of life.

The aim of measuring quality of life is to provide information about well being patients and to assess the effectiveness of halth care. Quality of life assessment measures changes in physical functioning, emotional functioning, social functioning, general health, physical status, emotional status, pain and fatigue (Testa, 1996).

Health people 2010 for hypertension suggest the necessity of a more comprehensive and intensive approach to achieve optimal quality of lives. The intervention which can be applied by pharmacists to manage hypertension patients is counseling. Counseling can improve the outcome therapy by maximizing the use of appropriate medication. One of the counseling benefit is improve medication adherence, so the the quality of live hypertension patients will be improved (Palaian et al., 2006).

Over all, it is necessary to investigate the influence of counseling orally on the quality of life of ambulatory hypertension patients at internal disease polyclinic PKU Muhammadiyah Bantul Hospital, Indonesia.

METHODS

The research was conducted prospectively to determine quality of life in ambulatory hypertensive patients at internal disease polyclinic PKU Muhammadiyah Bantul Hospital, Indonesia. The study group included 60 patients. They were devided in to two groups as intervension and control group. The intervention patients received counseling regarding hypertension and hypertension therapy, while the control group not received counseling. The follow up patients were done from baseline to second follow up. The inclusion criteria were patients 18-65 years old with diagnosed to have levels I and II hypertension and got antihypertensive medication in their prescription. The exclusion criteria were deaf and pregnant patients.

The data were collected from January to April 2013. Data collection was conducted by doing interview and completion of Quality
of Life (QOL) questionnaire. Validation questionnaire was carried out via conducting pilot study. The pilot study was conducted with 30 patients. The reliability analysis of the questionnaire was performed by calculating cronbach alpha value. The questionnaire was valid and reliable.

The collected data were analyzed and result were expressed as mean ± standard deviation. P value of <0.05 was considered statistically significant.

RESULTS AND DISCUSSION

This study recruited sixty patients in rural private hospital in Bantul district Yogyakarta. At the pre-study, clinical and sociodemographic data of patients were collected. The characteristic data of the subject can be seen on the table 1. Based on the characteristic patients, the subject were dominated by male patients (66.7%) for intervention group and female patients (70.0%) for control group. As for age, both of the intervention and control group were dominated by patients with the ages of 50 to 59 years. As for stages of hypertension, both groups were dominated by patients with hypertension stage two. As for payment, the treatment group was dominated by health insurance (46.7%), whereas the control group was dominated by self-payment (40%). In this study also evaluated the characteristic of smoking behaviour, the history of hypertension, education, and jobs. The subject study, either the intervention group or the control one, both were dominated by those who didn’t have the history of hypertension, smoking behaviour, self employed workers and education under 9 years.

At baseline study, all patients received the quality of life questionnaire. After answered the questionnaire, the intervention group received a counseling by pharmacist, meanwhile the control group received an usual care in the hospital. At the end of this study patients received and answered the quality of life questionnaire again.

The averages quality of life’s domain scores of patients before and after intervention were compared using the paired t-test and shown in table 2.

The increasing of quality of life questionnaire scores in the intervention group were greater than the control group. The quality of life domains in the intervention group that statistically significant difference (p<0.05) with the control groups were Physical functioning, Emotional functioning, Social functioning, General health, Pain, Fatigue, and General quality of life. The Physical and emotional status in both two groups same increased, but were not statistically significant difference (p>0.05).
The result of a previous study by Shahina et al. (2010) and Biradar et al. (2012) also support these findings.

The intervention group has received counseling only once and an interval between the counseling and the post study relatively short time period (one month). It can improved the Physical functioning, Emotional functioning, Social functioning, General health, Pain, Fatigue, and General quality of life. The Physical and emotional status were not improved significantly because to influence them need continuous and long time period counseling. Hypertension is a chronic disease and patients have been received therapy for long time ago, it was influenced quality of life patients especially the physical and emotional status. The counseling by pharmacist will be improving adherence in hypertension therapy and controlling blood pressure control (Alfian et al., 2013). Good blood pressure controlled will improve quality of life hypertensive patients.

The general quality of life scores of the intervention and control group were the same undergone increase. Though, based on the average of the general quality of life scores increase of the intervention group is greater than control group (fig.1).

**Table II. Quality of life domains scores of the intervention and control group**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Intervention group (n=30)</th>
<th>Control group (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre study mean±SD</td>
<td>Post study mean±SD</td>
</tr>
<tr>
<td>Physical functioning</td>
<td>71.83 ± 22.11</td>
<td>75.50 ± 20.78</td>
</tr>
<tr>
<td>Emotional functioning</td>
<td>84.40 ± 15.80</td>
<td>92.53 ± 7.41</td>
</tr>
<tr>
<td>Social functioning</td>
<td>71.25 ± 23.93</td>
<td>76.67 ± 21.71</td>
</tr>
<tr>
<td>General health</td>
<td>77.36 ± 9.39</td>
<td>81.22 ± 7.55</td>
</tr>
<tr>
<td>Physical status</td>
<td>59.17 ± 39.11</td>
<td>60.83 ± 37.53</td>
</tr>
<tr>
<td>Emotional Status</td>
<td>67.76 ± 34.46</td>
<td>67.76 ± 32.16</td>
</tr>
<tr>
<td>Pain</td>
<td>62.92 ± 24.89</td>
<td>71.25 ± 20.28</td>
</tr>
<tr>
<td>Fatigue</td>
<td>64.15 ± 11.45</td>
<td>71.50 ± 9.48</td>
</tr>
<tr>
<td>General quality of life</td>
<td>446.13 ± 133.47</td>
<td>481.87 ± 126.98</td>
</tr>
</tbody>
</table>

**CONCLUSION**

Based on these findings, this study concludes that pharmacist’s counseling can be improving quality of life of hypertensive patients. Additional research should be conducted to evaluate the efficacy of long time period pharmacist’s counseling for the management of hypertension.

**ACKNOWLEDGEMENTS**

We express our gratitude to all of the staff PKU Muhammadiyah Bantul Hospital
and Patients who helped us to complete this study

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