

Abstract

Background

Hypertension is the fourth leading preventable cause of cardiovascular diseases in global context and it leads to premature deaths. Prevalence of hypertension is rising globally with age and multiple risk factors. Nurses have a big role in hypertension control. Nurse-led telemonitoring is a healthcare service that uses technology to allow nurses to remotely monitor patients' health. This can be done through several methods. Tele monitoring might provide an opportunity to offer feasible, interactive, timely, and achievable medication and self-management interventions that require minimal effort from nurses whose time and resources are limited. The aim of this study was to evaluate the effectiveness of telemonitoring and self-management intervention for people with hypertension conducted by the nursing officer in Base Hospital Balangoda.

Methods

A pretest posttest design was employed to assess the effectiveness of tele monitoring and self-management intervention conducted for people with hypertension at the base hospital Balangoda. The effectiveness of tele monitoring and self-management intervention on self-management on hypertension control, the health related quality of life, symptom awareness and number of hospital readmissions were assessed before intervention (baseline), after one month of intervention (midpoint) and after two months of intervention (end point). The participants were 85 diagnosed hypertension people were chosen by convenient sampling from all medical units. The effectiveness of self-management tested by HBP Self-care Profile (HBP SCP) and quality measured with the World Health Organization (WHOQOL) –BREF) and symptom awareness measured with blood pressure awareness and insight scale at the base line and one and two months after the intervention commenced. The teaching session was designed by the researcher to the participants with hypertension before

discharge spending around 45 minutes. A booklet was given to the patients including health the above health teaching session. A telephone call was given to the people two weekly to remind the continuity of teaching session. The effectiveness of the self-management profile was analyzed by descriptive statistics and paired t test for asses significance of the study.

Results

There were (n=85) participants in the study ;(n = 41) female and (n=44) males .**Self-management Behavior:** The overall mean of self management behavior from the baseline to the end point were increased and it is significant (t-value = -34. 172, $p < 0. 001$). **Self-management Motivation:** Overall mean of self care motivation from baseline to endpoint, having t-value equal -31. 872 which is less than 0. 001 level of significance. **Self-Efficacy of clients:** The t-test of the endpoint level of self-efficacy to the baseline showed it was also statistically significant (t-value = -33. 372, $p < 0. 001$). **Physical quality of life:** The outcome of the general comparison between baseline and endpoint has a significant improvement (t-value = -15. 587; $p < 0. 001$). **Psychological quality of life:** From the study, enhanced psychological health was also significantly improved baseline and midpoint means (- 5. 849, $p > 0. 001$). The change from midpoint to endpoint (t-value =-4. 691, $p < 0. 001$). **Social quality of life:** The difference in the score achieved from midpoint to endpoint was not significant t-value = -1. 348, $p = 0. 181$ this showing that social quality of life had not significantly changed in this period. **Environmental quality of life:** People's living conditions has significantly improved from baseline to midpoint, basing on the t-score = -15. 806, $p < 0. 001$. **Symptom Awareness:** On this aspect, there was a highly and significantly improved of participants' awareness of symptoms from baseline to midpoint stage (t-value = -14. 067, $p < 0. 001$). This high awareness was shown to be consistent also from midpoint to endpoint. **Readmissions:** At midpoint readmissions were 8. It has decreased to 3 at the end point in the study period.

Conclusion

The telemonitoring and self management is effective for improving patient self management on hypertention, health related quality of life, symptom awareness and reduced readmissions.

This study makes an original contribution to the understanding of self management and telemonitoring of people with hypertension in Sri Lanka, and several implications for improving clinical practice are suggested. .