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**Title:**

**Telephone Telemedicine for Improving Hypertension Follow-up in Working-Age Adults: Implications for Occupational Health Programs**

**Abstract:**

**Background:** Hypertension remains a critical occupational health concern, with poor follow-up adherence contributing to uncontrolled blood pressure, increased cardiovascular risk, and workplace productivity losses. This study evaluates whether telephone telemedicine—an accessible, low-cost intervention—can improve follow-up rates among non-adherent hypertensive patients, with implications for workplace health initiatives.

**Methods:** We conducted a cross-sectional study of 887 working-age hypertensive patients (mean age 47.7 ±11.2 years; 52.8% male) who missed scheduled follow-up appointments at a hypertension specialty center in 2023. After exclusions, 678 participants were surveyed via phone regarding their reasons for non-attendance and willingness to engage in telemedicine follow-ups.

**Results:** Key findings revealed that while 47.9% (n=325) of patients expressed treatment satisfaction and intent to attend future visits, 23.1% (n=157) discontinued follow-up due to feeling asymptomatic, and 28.9% (n=196) sought alternative care. Multivariable analysis identified significant disparities: female workers had 58% lower follow-up likelihood than males (RRR=0.42, 95% CI=0.21-0.83), and employees aged ≥60 years showed 52% lower adherence than younger counterparts (RRR=0.48, 95% CI=0.25-0.92). Notably, employed individuals demonstrated better engagement, suggesting workplace health programs could leverage this trend.

**Conclusion:** These findings demonstrate telephone telemedicine's potential to improve hypertension management in occupational settings, particularly for high-risk groups (women, older workers) and urban employees facing access barriers. The results advocate for employer-sponsored telemedicine interventions to sustain workforce cardiovascular health and productivity. Further research should evaluate telemedicine's cost-effectiveness in workplace health programs.