The impact of severe vasomotor symptoms on work productivity and activity impairment: Findings from a US Real World Study

Javaherian H, Scott M, Wild R, Small M

Adelphi Real World, Bollington, UK

Introduction

- Vasomotor symptoms (VMS), or hot flashes and night sweats, are cardinal symptoms of the menopausal transition, which occur in over 75% of post-menopausal women[1], and can severely impact quality of life.[2]
- VMS are associated with sleep and mood disturbances, as well as an overall cognitive decline, while impact at work is less well documented. In addition, average age for the onset of menopause is 51 years,[3] so often coinciding with a time considered to be of peak professional productivity.
- Using the Work Productivity and Activity Impairment questionnaire (WPAI), a sample of US female patients reported their experience of VMS alongside working and daily living.

Objectives

- This study assessed the impact of severe VMS on work and activity impairment.

Methodology

- A cross-sectional survey was conducted in 2014 in the US using the Adelphi Real World VMS Disease Specific Programme™ (DSP),[4] generating real-world evidence representative of female VMS patients consulting with their physician in a routine care setting.
- Participating physicians (primary care physicians and obstetricians/gynaecologists) completed details of consecutive patients consulting with VMS. Information such as age, symptoms, treatment, comorbidities, frequency and severity of VMS was collected.
- The same patients were invited by the physician to complete a questionnaire, which was anonymous and voluntary. This contained similar questions to those filled out by the physician, as well as the WPAI.
- The WPAI questionnaire was used to assess work time missed, impairment at work, overall work impairment and activity impairment for the VMS patient sample.
- Adjusted means were derived for the level of work and activity impairment reported by patients with mild/moderate and severe VMS by utilising multiple linear regressions including adjustments for covariates of age, body mass index (BMI) and the Charlson Comorbidity Index (CCI).

Results

- Of the 644 patients who completed a questionnaire, 250 patients were included in the study based on those who reported VMS symptoms and had complete information for the physician-reported covariates (age, CCI, BMI and VMS severity).
- The sample consisted of patients with a mean age of 53.4 years, 66.5% of which were post-menopausal and 72.7% of whom were receiving prescribed treatment. (Table 1). 159 patients were in employment, 83% of which were in full-time employment.

Table 1: Patient characteristics

		Overall (n=250)	Mild (n=66)	Moderate (n=128)	Severe (n=56)
Mean age (years)		53.4	53.9	53.8	52.0
Stage of menopausal transition, %	Pre	1.2%	1.5%	1.6%	0.0%
	Peri	32.3%	27.7%	35.4%	30.4%
	Post	66.5%	70.8%	63.0%	69.6%
Mean BMI*		28.5	28.8	28.5	28.0
Mean CCI**		0.10	0.03	0.16	0.02
Prescribed treatment?, %	Yes, currently	72.7%	56.9%	74.2%	87.5%
	Previously	4.4%	9.2%	3.1%	1.8%
	Never	22.9%	33.9%	22.7%	10.7%

*Body mass index, **Charlson Comorbidity Index

- 26.4%, 51.2% and 22.4% of patients were reported by the physician to have mild, moderate and severe VMS, respectively (Figure 1).
- Work time missed was not significantly different when comparing physician-reported mild/moderate patients with severe VMS patients (p=0.339) (Figure 2).
- Severe VMS patients were significantly impaired at work when compared to mild/moderate VMS patients (p=0.0028) (Figure 2).
- Severe VMS patients also experienced a significantly greater overall work impairment (p=0.028) compared with mild/moderate VMS patients (Figure 2).
- Patients with severe VMS reported activity impairment around double that of mild/moderate VMS patients (p<0.001) (Figure 2).

Figure 1. Physician-reported VMS severity

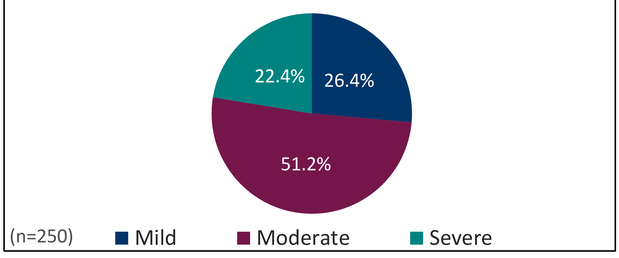
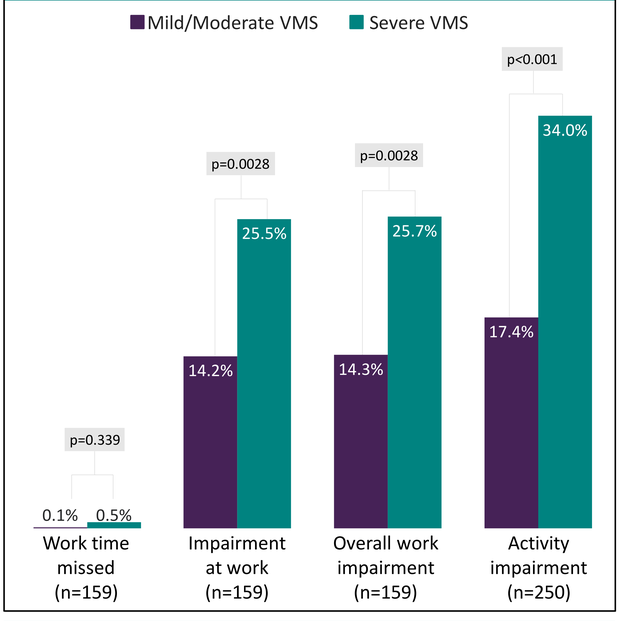


Figure 2: Work and activity impairment



Conclusions

- One fifth of patients with VMS experience this to a severe degree.
- Women with severe VMS experience greater work and activity impairment compared to mild/moderate VMS patients, impacting both their work and personal lives.
- The level of impairment in women with severe VMS, as measured by the WPAI, is comparable with that experienced by chronic disease patients.
- Our results are consistent with those reported by Whiteley et al. (2013), which concluded that a greater severity of VMS was significantly associated with lower levels of health status and work productivity.[5]
- Despite the majority of patients with severe VMS receiving prescribed therapy, the lack of current control of VMS suggests new treatment approaches could have a beneficial impact on work productivity, as well as other activities of everyday living.

Disclosures

- No external funding was received for this research.

References

1. Kronenberg F, 1990; Hot Flashes: Epidemiology and Physiology. Annals of the New York Academy of Sciences; 592(1): 52-86.
2. Blümel J, Chedraui P, Baron G et al. 2011; A large multinational study of vasomotor symptom prevalence, duration, and impact on quality of life in middle-aged women. Menopause; 18(7): 778-785.
3. McKinlay S, Bifano L, McKinlay B. 1985; Smoking and Age at Menopause in Women. Annals of Internal Medicine; 103(3).
4. Anderson P, Benford M, Harris N et al. 2008; Real-world physician and patient behaviour across countries: Disease-Specific Programmes – a means to understand. Curr Med Res Opin; 24(11): 3063-3072.
5. Whiteley J, Wagner J, Bushmakin A et al. 2013; Impact of the severity of vasomotor symptoms on health status, resource use, and productivity. Menopause; 20(5): 518-24.

Prepared for Virtual ISPOR US 2020 (May 18-20)