Cyclic perimenstrual pain and discomfort and the role of complementary and alternative medicine in its treatment

Carole Yvonne Fisher
Australian Research Centre in Complementary and Integrative Medicine,
Faculty of Health, University of Technology Sydney

Thesis submitted for the degree of Doctor of Philosophy at the University of Technology Sydney, February 2019

Certificate of original authorship

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

I would like to acknowledge with gratitude that this research was supported by an Australian Government Research Training Program.

Signature of Student:

Production Note:
Signature removed prior to publication.

Date 6th February, 2019

Statement of contributions to jointly authored works contained in the thesis

The results from this thesis have been submitted for publication in peer-reviewed journals through five articles (one integrative literature review paper and four discrete original articles), presented in Chapter 2, Chapter 4, Chapter 5, Chapter 6 and Chapter 7. For each of these papers, I have been primarily responsible for determining the research question, undertaking the analysis and drafting the manuscript.

Support in all of these areas has been provided by Professor David Sibbritt and Professor Jon Adams, Doctor Louise Hickman and Doctor Jane Frawley.

I take full responsibility in the accuracy of the findings presented in these publications and this thesis.

Published works by the author incorporated into the thesis

The following are the published papers contained within this thesis:-

1. Fisher C, Sibbritt D, Hickman L, Adams J. (2016) A critical review of complementary and alternative medicine use by women with cyclic perimenstrual pain and discomfort: a focus upon prevalence, patterns and applications of use and users' motivations, information seeking and self-perceived efficacy. *Acta Obstetricia et Gynecologica Scandinavica*. 95(8): 861-871.

2. Fisher C, Adams J, Hickman L, Sibbritt D. The use of complementary and alternative medicine by 7427 Australian women with cyclic perimenstrual pain and discomfort: a cross-sectional study. *BMC Complementary and Alternative Medicine.* 2016; 16 (1):1-11.

3. Fisher C, Hickman L, Adams J, Sibbritt D. Cyclic Perimenstrual Pain and Discomfort and Australian Women's Associated Use of Complementary and Alternative Medicine: A Longitudinal Study. *Journal of Women's Health.* 2018; 27 (1):40-50.

4. Fisher C, Adams J, Frawley J, Hickman L, Sibbritt D. Western herbal medicine consultations for common menstrual problems; practitioner experiences and perceptions of treatment. *Phytotherapy Research.* 2018; 32(3):531-541.

5. Fisher C, Adams D, Frawley J, Hickman L, Sibbritt D. Is there a role for Western herbal medicine in treating cyclic perimenstrual pain and discomfort*? Australian and New Zealand Journal of Obstetrics and Gynaecology*. Accepted for publication 23rd July,2018.

Abbreviations

AE	Adverse event
AUB	Abnormal uterine bleeding
ALSWH	Australian Longitudinal Study on Women's Health
BMI	Body mass index
CAM	Complementary and alternative medicine
CHM	Chinese herbal medicine
CHP	Conventional health practitioner
CI	Confidence interval
CPP	Chronic pelvic pain
CPPD	Cyclic perimenstrual pain and discomfort
DSM	Diagnostic and Statistics Manual of Mental Disorders
EPO	Evening primrose oil
GABA	Gamma amino-butyric acid
GP	General practitioner
HMB	Heavy menstrual bleeding
HSR	Health Services Research
HTA	Health technology assessment
ISSP	International Social Survey Program
IUD	Intrauterine Device
NHS	National health service
NHIS	National Health Interview Survey
NICE	National Institute for Health and Care Excellence
OCP	Oral contraceptive pill
OR	Odds ratio

OTC	Over the counter
PCOS	Polycystic ovary syndrome
PH	Public Health
PMS	Premenstrual syndrome
PMT	Premenstrual tension
PMDD	Premenstrual dysphoric disorder
PRACI	Practitioners Research And Collaboration Initiative
RCT	Randomised controlled trial
SSRI	Selective serotonin re-uptake inhibitor
TCM	Traditional Chinese medicine
UK	United Kingdom
USA	United States of America
VAC	*Vitex agnus-castus*
WH	Western herbalist
WHM	Western herbal medicine
WHO	World health organisation

Acknowledgements

I would like to acknowledge and express my sincere gratitude to my supervisors Professor David Sibbritt, Professor Jon Adams, Dr. Louise Hickman and Dr. Jane Frawley for their steadfast support and guidance throughout the research and recording of my research.

I am also extremely grateful to my whole family who have supported and encouraged me throughout, their belief in me has been a driving force.

Finally, I would like to thank all the women from the Australian Longitudinal Study on Women's Health and Western herbalist members of the Practitioner Research And Collaboration Initiative. Without their willingness to participate in the surveys that is the basis of this research, this thesis would not have been possible.

Abstract

Background

There is a high prevalence of cyclic perimenstrual pain and discomfort (CPPD) with up to 97% of women experiencing problems such as premenstrual syndrome (PMS) and dysmenorrhoea, during their menstruating years. This can impair women's ability to fully participate in all aspects of life. Conventional medicine has limitations in treating affected women and evidence suggests women are increasingly exploring complementary and alternative medicines (CAMs) for support.

Aims

To determine the associated use of CAM by women with CPPD, their user-rated efficacy and the significance this use may have for public health providers.

Method

A literature review of cross-sectional data provided a baseline of CAM use, and its associated efficacy, reported by women with CPPD. Patterns of CAM use and CPPD prevalence were examined using 2012 data collected from women aged 28 to 33 years in the Australian Longitudinal Study on Women's Health. This cohorts' changes in CAM use and associated CPPD from 2006 to 2012, provided further insights into this association.

Western herbal medicine emerged as one CAM favoured by women with CPPD. Western Herbalists (WHs) were surveyed on their perceptions of their treatment for CPPD regarding its efficacy, costs and duration and the herbs preferred in treating symptoms. An assessment based on clinical evidence was undertaken for the main nominated herbs.

Results

From the literature review, cross-sectional studies of CAM use for CPPD have increased sharply in recent years, however overall data were highly variable. Across studies, CPPD prevalence was high, with a mean prevalence of CAM used as treatment of 32%

and up to 70% user-prevalence of herbal medicine. CAM efficacy was well rated, at between 33%-97%, mostly adopted through self-prescription. At least 41.2% of ALSWH participants experienced CPPD and frequent sufferers of PMS were significantly more likely to consult a naturopath/herbalist (OR = 2.11), or self-prescribe herbal medicines (OR = 1.72) compared to non-sufferers. Over the years 2006 to 2012 the only significant positive association found was for naturopath/herbalist consultations and women suffering PMS.

Between 61% and 84% of WHs rated their treatment of four common CPPD symptoms as 'always effective', this being highest for PMS. WHs' treatment appeared cost-effective and of short duration. However, scientific evidence for the main herbs used in CPPD treatment was limited.

Conclusion

CAM is increasingly being used by women to treat CPPD. Whilst herbal medicine may be an additional, effective and economical treatment, more well-designed, rigorous clinical trials are needed to confirm safety and efficacy before it gains mainstream credibility.

Contents

Tables

Tables continued

Appendices