正念、静坐與冥想（簡稱：MSM）使用在治療癌症中的美國華裔女性

Shan Liu, PhD, RN , Guang Qiu, MD, PhD , and Wendy Louie, RN

摘要 Abstract

背景。很少有已经進行的研究在用以检查癌症患者使用冥想對患病機率、發病頻率、有效性感知的改變的可能影响。目標。檢查美國華裔婦女在治療癌症中的正念、打坐、冥想療法（簡稱：MSM）的使用，其與特定痛苦症狀的關係，以及MSM的可能影響因素。方法。通過美國癌症協會支持小組招募義工與實驗參與者。參與者完成了人口統計數據表，研究者制定的MSM標準和檢查表，以及記憶本身症狀的評估量表 - 簡表。結果。八十九名平均年齡58歲華裔美國婦女完成了調查問卷。報告中有21例患者（24%）在積極治療癌症期間使用MSM。**發現教育程度較高，收入較高、英語水平較好和有健康保險的患者更有可能使用MSM。報告中患有更多痛苦症狀的患者也更多的使用MSM。大多數使用冥想的患者（20/21）認為它有效。**控制其他變量後，**可以預測出在治療癌症中的美國華裔婦女以英語水平較高、乳腺癌患者和痛苦症狀較高的患者使用MSN。**

結論。大約24%的華裔美國婦女治療癌症中使用MSM，他們大多認為它是有效的。**實驗證明，痛苦症狀嚴重和英語水平較高者能夠預測MSM的使用效果。鑑於MSM的有效性，腫瘤護士可以推薦華裔美國婦女在治療癌症中使用MSM，特別是對於具有較高痛苦症狀的患者。**

1.Adelphi University College of Nursing and Public Health, Garden City, NY, USA
2.The Feinstein Institute for Medical Research, Northwell Health, Manhasset, NY, USA
3.New York Presbyterian Queen Hospital, Flushing, NY, USA
Corresponding Author:
Shan Liu, Adelphi University College of Nursing and Public Health, One South Avenue, Garden City, NY 11530, USA.

關鍵詞 Keywords

正念冥想，華裔美國人，癌症，痛苦症狀嚴重，女性

MSM：正念、静坐與冥想。CAM：互補和替代療法

提交日期：2015年12月31日; 修訂日期：2016年4月8日; 接受日期：2016年4月11日

介紹 Introduction

癌症及其治療經常影響人類各個方面的健康程度，並且可能導致多種身體和心理不適症狀，包括疲勞，噁心，抑鬱，焦慮，疼痛等。互補和替代療法（簡稱：CAM）可有助於治療與控制的這些多個方面的損傷。與一般美國人群相比，報告中美國華人更常用的CAM，包括中草藥，針灸，中國按摩（tui na），冥想，太極和瑜伽，以幫助治療與控制他們的

症狀。一般來說，與男性相比，女性更常使用CAM。因此，Lin和Schinke發現，與華裔美國男性相比，華裔美國女性更可能使用CAM。

正念冥想，是這些常用的治療方法之一。是一種源於佛教的傳統冥想方法，在美國已經被廣泛設置使用於各種臨床醫療方面。

根據著名的正念冥想教師Kabat-Zinn所說，“正念意味著以特定的方式專注;有目的性的，專注於現正，不做評價“。（“Mindfulness means paying attention in a particular way; on purpose, in the present moment, and nonjudgmentally.”）。

正念包括接受，意思是參與者在不做評價、不帶信仰下注意他們自己的想法和感覺，例如，在特定的時刻用一個“正確的”或“錯誤的”的方式來思考或感覺。（Mindfulness involves acceptance, meaning that participants pay attention to their own thoughts and feelings without judgment—without believing, for instance, that there’s a “right” or “wrong” way to think or feel in a given moment.）。

這是通過發展佛教哲學所謂的“冷靜客觀的觀察力”或“空的注意力”來實現的。（This is achieved through the development of what Buddhist philosophy refers to as “detached observation” or “bare attention.”）。

正念冥想涉及4種形式：感覺知覺、打坐冥想、身體掃描和考慮的活動。（Mindfulness meditation involves 4 forms: awareness of sensations, sitting meditation, body scan, and mindful movement.）。

正念打坐冥想（MSM）不同於身體運動形式的正念冥想，例如太極，氣功，瑜伽或正念行走。在打坐冥想（禪坐）期間專注於呼吸的身體感覺是一種常見的技術，並且對於那些剛開始學習正念冥想的人來說容易體驗。**禪坐作為能介入多種藥物治療的主要或唯一方法，已被廣泛用於慢性疾病的治療與控制。多項研究報導已經在慢性心力衰竭，糖尿病，HIV / AIDS和類風濕性關節炎等患者中使用禪坐。在癌症患者中，禪坐用於緩解症狀或治療相關的副作用。例如，已經發現以坐姿進行的能量調解可以減輕乳腺癌患者的疼痛，焦慮和抑鬱，改善身體和精神健康以及生活質量。**在這些使用與實踐禪坐的癌症患者的回應中發現一致性的益處，包括心理功能的改善，減少壓力與相關的症狀和提高的生活質量。已經發現可以用社會人口因素和不適症狀來預測CAM使用。**已經發現：性別;婚姻狀況;癌症階段;症狀經歷如疼痛，抑鬱和失眠;和症狀的痛苦等因素，可以用來預測使用CAM的癌症患者。在冥想方面，教育程度較高和女性性別與正念練習的使用增加相關。**報告中顯示種族的差異與在癌症患者中使用CAM有關。尤其是華裔美國人，據報告有高風險的健康差異的。然而，對少數群體使用冥想的影響因素知之甚少。據我們所知，我們的是第一個研究華裔美國癌症患者使用冥想和影響因素的研究報告。因此，本研究的目的是檢查在華裔美國癌症女性中使用MSM的流行率，頻率，感知有效性和可能的影響因素。假設華裔癌症女性認為MSM是有效的，一些社會人口學因素和不適症狀便可用來預測MSM的使用。

方法 Methods

設計，設置和參與者 Design, Setting, and Participants

2012年9月至2013年5月，在美國癌症協會亞洲倡議部門的支持下，在紐約市開展了一項分類性和代表性的研究。研究受試者需通過研究小組每週的計劃課程。納入的標準是參與者必須是華裔移民或美國出生的華裔，女性，至少18歲，積極治療癌症，居住在紐約市，並能夠做到書面知情同意。如果參與者不能用中文或英語溝通，或者有認知問題妨礙他們回答問卷，則被排除在外。
Adelphi大學的機構審查委員會批准了這項研究。該研究的雙語研究人員參加了癌症支持小組的每週會議，以分發問卷並解釋研究。表示對這項研究感興趣的個人在每週會議後親自現場與研究人員會面。在獲得知情同意後，給每個參與者給予自我調查問卷。調查問卷有中文和英文，但所有參加者選擇了中文的語言。給每個參與者一張10美元的禮品卡作為完成問卷的激勵。參與者花費20至30分鐘完成問卷調查。

測量單位、方法 Measures

人口和臨床信息 Demographic and Clinical Information

收集了包括年齡，婚姻狀況，教育，宗教，來美國時間，英語水平，年度家庭收入和健康保險的人口數據。收集包括癌症類型，診斷時癌症階段和癌症治療（例如，手術，化療和放射治療）的臨床數據。

正念打坐冥想 Mindfulness Sitting Meditation

使用研究人員開發的CAM測試清單上的幾個問題進行評估正念打坐冥想的有效性。本研究中的問卷滿意度Cronbach's a系數為.85。我們只評估在正念冥想中的打坐冥想;不包括太極，氣功或瑜伽等其他CAM的參與者。在參與者完成調查問卷之前，雙語研究人員在一個安靜、獨立的房間中向潛在參與者解釋了MSM的標準。 MSM標準包括以下內容：至少10分鐘舒適地打坐，注重呼吸，肌肉和神經放鬆，注意現在並接受它和不去做評價。該標準基於MSM的定義/特徵。思維冥想以10分鐘長度使用呼吸意識下的冥想的開始入門水平做標準，並且可以由參與者自己在無指導狀況下練習。問卷第27,28條是關於在CAM檢查表中使用MSM的問題，問題如下：您是否使用MSM積極治療癌症（是或否）？你使用它的頻率（每月次數）？它有多有效？（無效/有效/有效/非常有效）。太極，氣功，瑜伽和其他身體運動的正念冥想在本研究中不被認為是MSM。

痛苦症狀 Symptom Distress

痛苦症狀通常被定義為“患者報告的與所經歷的症狀感覺相關的不適程度”。使用記憶症狀評估量表 - 簡短表格（MSAS-SF）評估症狀。要求參與者在積極治療癌症期間評定其不適症狀。MSAS-SF是一種評估工具，讓參與者評估與26個與身體相關的痛苦症狀和4個心理症狀的發生頻率。對於身體症狀，按5分Likert型量表評分痛苦，範圍從0到4（症狀不存在;存在症狀但沒有痛苦;症狀存在一點點痛苦;症狀存在一些痛苦，症狀存在較高程度痛苦，症狀具有非常高的痛苦）。
心理症狀頻率：很少（1），偶爾（2），經常（3），幾乎不斷（4）。 MSAS-SF的3個程度測量表是全球心理壓力指數（4個心理症狀：感到悲傷，擔心，感覺易怒，感覺緊

張，6個身體症狀：缺乏能量，疼痛，缺乏食慾，感覺昏昏欲睡，便秘，和口乾）；（缺乏能量，疼痛，缺乏食慾，感覺昏昏欲睡，便秘，口乾，噁心，嘔吐，味覺變化，體重減輕，感覺;腫和頭暈）的身體痛苦症狀量表;和心理痛苦症狀評分，包括6個流行的心理症狀（擔心，感到悲傷，感覺緊張，睡眠困難，感覺易怒和精神難以集中）。 MSAS-SF已被報導在美國人和華裔人群中具有有效性和可靠性。

數據分析 Data Analysis

所有數據分析使用SPSS 22版本進行。描述性統計（平均值，連續變量的標準偏差，頻率分佈和分類變量的比例）用於描述參與者的人口統計學和臨床特徵。使用氣的方塊測試應變表來檢驗人口學和臨床特徵與MSM（冥想和非冥想組）之間的關係。頻率和平均數來用來描述MSM的有效性和使用頻率。使用Mann-Whitney U測驗來評價MSM如何與痛苦症狀相關。應用二元邏輯回歸分析來檢查MSM使用的預測因子。

功率計算表明，在樣本大小為78例的情況下，該研究具有> 80％的有效性，以使用Mann Whitney U檢驗在0.05的顯著性水平下檢測痛苦症狀，絕對有40％的差異改變。估計至少40％的差異改變是臨床相關的。另外，85名患者的樣品用於回歸分析，並且在相同α水平（P <.05）的研究中提供類似的功效，效應大小為0.15。效應大小0.15是中等效應大小，是能夠使用在檢測組間差異的回歸分析。

結果 Results

八十九名華裔美國女性，平均年齡58歲，完成了問卷調查。參與者移民美國的平均時間為20年（從10年到30年）。大多數（91％）診斷為乳腺癌，61％的患者在診斷報告為早期癌症（I期或II期）。21例患者（24％）報告在積極治療癌症期間使用MSM。**與在癌症治療期間未使用MSM的參與者相比，使用MSM的參與者俱有更好的英語能力（P = .001），更好的收入（P = 0.002），較高的教育水平（P = 0.041）和更好的保險。**其他如：來美國的時間，婚姻狀況，宗教，年紀，癌症類型，癌症部位，診斷時的癌症階段或兩組之間的癌症治療方面則沒有顯著差異。有關詳細信息，請參見表1。

MSM的使用頻率（14.6±6）為6～20次，平均每月14次。在使用MSM的21名患者中，3名感覺到非常有效，12名感覺到相當程度的有效，5名感覺到它有點有效，1名沒有感覺到它是有效的（圖1）。

表2證明了MSM的使用與痛苦症狀之間的正相關。痛苦症狀包括缺乏能量（P = 0.022），噁心（P = 0.006），感覺困倦（P = 0.001），睡眠困難（P = .007），口腔疼痛P = 0.018），瘙癢（P = 0.016），食慾缺乏（P = .005），麻木和手感麻煩（P = 0.009），食物味道變化損失（P = .002）和神經質（P = .024）。患者有上述的症狀愈多則更有可能使用MSM。此外，總症狀數（P = .003）和MSAS總分（P <0.001）與MSM的使用呈正相關。

應用雙變量回歸分析以檢查MSM的使用的可能影響因素（表3）。在調整所有人口統計變量後，英語能力（P = .002），癌症類型（P = 0.034）和所有痛苦症狀評分（P =

0.016）這3項最常用來預測MSM的使用。**即患者具有較好的英語水平、被診斷患有乳腺癌，且痛苦症狀較多的則更有可能去使用MSM。**

討論 Discussion

在這項研究中，我們發現大約24%的患者在本研究期間在做癌症治療時使用MSM。最近的一項全國健康訪談調查報告說，在一般成年人口中使用冥想約為9%。慢性疾病的參與者如癌症，糖尿病和關節炎患者比沒有慢性疾病的患者更多的使用放鬆技術和其他CAM。另一項全國調查研究發現，使用放鬆技術的亞裔美國人數量從2002年的16.39%略微增加到2007年的17.47% ，這與我們的發現相似。在這項研究中使用MSM的相對高百分比表明MSM是華裔美國癌症女性中常用的CAM。

在這項研究中，在控制其他變量後我們發現，更好的英語水平的參與者更有可能使用MSM。正念冥想根植於2500年前的佛教。佛教作為中國最受歡迎的宗教，在大約2000年的時間裡，在各種各樣的領域塑造了中國文化。**然而令人驚訝的是，英語語言能力水平是適應西方文化的一個重要指標，竟然在這項研究中發現也是華裔美國癌症女性使用MSM的重要預測指標。**英語語言能力對使用MSM影響的一個可能原因是華人通常不使用冥想來應對慢性疾病。

相反，冥想被中國傳統的頭腦和身體技巧，如太極和氣功取代。**在搜索以英語語言的研究文獻中，沒有發現關於華人/華裔美國人使用冥想在癌症或其他慢性疾病的治癒中，但在西方許多公開的研究報告中卻已經表明了其他族裔在相關的治療中使用冥想。**另一方面，在搜索文獻中卻找到許多關於在華人人群中使用氣功和太極在慢性疾病中的已經發表的研究報告。**在華人中以英語水平較高的人比英語能力有限的人更可能、更容易接受MSM，可能因為他們更容易獲得關於冥想的好處的已發表文章，或者他們可能會被有冥想經驗的西方醫生或護士轉介，因此更願意使用例如MSM等在西方世界已經變得更常見的治療實踐方法。**

在這項研究中，社會經濟地位（SES）因素包括教育，收入和保險覆蓋率與患者是否使用MSM顯著相關。雖然這些SES因素在控制其他變量後沒有保持顯著性，但在文獻中已經報導SES因素確實影響冥想的使用。最近一次美國國家健康訪談調查研究發現，SES因素與參與冥想有關，而更的高教育與使用正念冥想練習有關。另一項研究報告，年齡較大，女性，受過更好教育和來自中上層家庭的患者更有可能使用冥想。在本研究中我們沒有發現SES因素預示了MSM的使用，原因可能是由於樣本量較小，或者簡單地說，某些症狀在預測這些華裔美國婦女使用MSM方面比SES因素起到更重要的作用。

在我們的研究中使用MSM治療他們的癌症症狀的大多數參與者（20/21）認為它是有效的。以前的研究已經確定冥想可以緩解多種症狀和提高生活質量，這發現與我們在研究MSM的報告證明其有效性一致。由於大多數使用MSM的患者報告MSM有效，腫瘤醫生和護士可能會考慮建議華裔美國癌症女性更多地使用它。

據我們所知，我們的研究報告是第一個做痛苦症狀研究的報告，並在癌症患者中使用MSM作為獨立預測因素。以前的全國調查研究報告說，患有慢性疾病的患者比沒有慢性疾病的患者更可能使用冥想.在2002年的全國健康訪談調查研究中，疼痛，抑鬱和失眠被發現是CAM使用的強預測因素，6項研究結果與我們的研究結果相似。**嚴重的痛苦症狀是華裔美國婦女使用MSM治療癌症的重要推動力。**

限制 Limitations

研究有幾個限制。首先，MSM的測量是以正念冥想開始入門水平來做標準。該研究沒有檢查MSM的持續時間和參與者的技能水平（新手/中等水平/專家）。雖然在這項研究中沒有使用正念冥想量表來測量MSM，但是收集數據的研究者都是對正念冥想的技術很熟練。在數據收集期間，研究人員與每個潛在參與者談話，以確保他們符合MSM的標準。其次，本研究中的參與者代表了一個便利樣本，並不代表美國所有華裔美國癌症女性。第三，樣本量很小，未來的研究需要更大的樣本量來驗證本研究的結果。

對臨床實踐和研究的影響 Implications for Clinical Practice and Research

在癌症治療實踐中，對症狀的研究已經是多年的研究焦點，並且仍然是高優先級別。我們發現，本研究中的大多數患者認為MSM以某種方式（從很少有效到非常有效）產生效果。在這項研究中以痛苦症狀和MSM之間的強烈關係表明，嘗試使用MSM的華裔美國癌症婦女成功地治療與控制痛苦症狀。

可能是由於關於在癌症患者中使用MSM的益處的證據越來越多，也使得這種MSM的使用增加。因此，正在幫助華裔美國患者進行症狀治療與管理的腫瘤醫生和護士應該鼓勵患者更多地使用MSM，特別是對於具有嚴重痛苦症狀的患者。參見圖2以了解如何做MSM的指導。如果沒有經驗是很難讓一個思想痛苦與煩惱的心理平靜，腫瘤醫生和護士可以介紹並推薦MSM練習，讓冥想練習者在出現痛苦之前練習，如手術或化療/放射治療之前。使有嚴重症狀的華裔美國患者可以更有效地實施MSM。

圖2 Figure 2:MSM的指導

在一個安靜的地方坐在舒適的椅子上10分鐘或更長時間
只關注呼吸
專注於現在的時刻，不做任何評價
嘗試進入肌肉和邏輯放鬆的狀態
無所謂是否融入音樂
無所謂是否閉上眼睛
無所謂是否以禪的姿勢打坐
可以每天練習或根據自己的節奏練習

與其他研究類似，本研究發現MSM與SES因素相關，包括教育，收入，保險覆蓋率和英語水平。擁有更好的教育，收入和保險的參與者在癌症治療期間更有可能使用MSM。**鑑於本研究中患者感知MSM的有效性，腫瘤醫生和護士不僅應該鼓勵具有嚴重痛苦症狀的華裔美國人使用MSM，也要鼓勵較差的英語水平和低SES的華人使用MSM。**

僅有少量關於MSM的有效性和影響因素的研究在美國進行，限制了MSM作為癌症患者的介入性使用。 MSM是CAM的一種類型，許多患者可以在家自己練習，因為它需要很少的成本和最小的監督。**有必要有更多關於MSM在癌症治療中的使用研究以滿足癌症患者的需求。**未來的研究應包括強調改進的技術、方法。例如，描述性研究應該檢查＂練習量，頻率，家庭練習的時間長度，冥想練習的技術水平＂等影響因素的詳細信息。研究還可以擴展到包括MSM在不同癌症和少數群體中的作用。

利益衝突聲明 Declaration of Conflicting Interests

作者宣稱在本文的研究，作者身份和/或出版方面沒有潛在的利益衝突。

資金 Funding

作者宣稱接受Adelphi大學內部教師發展補助金做為本文的研究，作者和/或出版物的財務支持。

參考文獻 References

1. Cleeland CS, Zhao F, Chang VT, et al. The symptom burden of cancer: evidence for a core set of cancer-related and treatment-related symptoms from the Eastern Cooperative Oncology Group Symptom Outcomes and Practice Patterns study. Cancer. 2013;119:4333-4340.

2. Wu HS, Harden JK. Symptom burden and quality of life in survivorship: a review of the literature. Cancer Nurs. 2015;38(1):E29-E54.

3. Liu S, Ercolano E, Siefert ML, McCorkle R. Patterns of symptoms in women after gynecologic surgery. Oncol Nurs Forum. 2010;37(2):E133-E140.

4. Lee MM, Lin SS, Wrensch MR, Adler SR, Eisenberg D. Alternative therapies used by women with breast cancer in four ethnic populations. J Natl Cancer Inst. 2000;92:42-47. 5. Wanchai A, Armer JM, Stewart BR. Complementary and alternative medicine use among women with breast cancer: a systematic review. Clin J Oncol Nurs. 2010;14(4):E45-E55. 6. Fouladbakhsh JM, Stommel M. Gender, symptom experience, and use of complementary and alternative medicine practices among cancer survivors in the U.S. cancer population. Oncol Nurs Forum. 2010;37(1):E7-E15. 7. Liu S, Sun Y, Louie W. Symptom distress and its association with traditional Chinese medicine use in Chinese American women with cancer. Oncol Nurs Forum. 2015;42(1): E24-E32.

8. Hsiao AF, Wong MD, Goldstein MS, Becerra LS, Cheng EM, Wenger NS. Complementary and alternative medicine use among Asian-American subgroups: prevalence, predictors, and lack of relationship to acculturation and access to conventional health care. J Altern Complement Med. 2006;12: 1003-1010.

9. Gan GG, Leong YC, Bee PC, Chin E, Teh AK. Complementary and alternative medicine use in patients with hematological cancers in Malaysia. Support Care Cancer. 2015;23: 2399-2406.
10. Bauml JM, Chokshi S, Schapira MM, et al. Do attitudes and beliefs regarding complementary and alternative medicine impact its use among patients with cancer? A cross-sectional survey. Cancer. 2015;121:2431-2438.
11. Lin F, Schinke S. Complementary alternative medicine use among Chinese Americans: findings from a community mental health service population. Psychiatr Serv. 2007;58:402-404. 12. Kabat-Zinn J. Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness. Revised ed. New York, NY: Random House; 2013.
13. Baer R. Mindfulness training as a clinical intervention: a conceptual and empirical review. Clin Psychol Sci Pract. 2003;10:125-143.
14. Ott MJ, Norris RL, Bauer-Wu SM. Mindfulness meditation for oncology patients: a discussion and critical review. Integr Cancer Ther. 2006;5:98-108.
15. Chhatre S, Metzger DS, Frank I, et al. Effects of behavioral stress reduction transcendental meditation intervention in persons with HIV. AIDS Care. 2013;25:1291-1297.
16. Curiati JA, Bocchi E, Freire JO, et al. Meditation reduces sympathetic activation and improves the quality of life in elderly patients with optimally treated heart failure: a prospective randomized study. J Altern Complement Med. 2005;11:465-472. 17. Rungreangkulkij S, Wongtakee W, Thongyot S. Buddhist group therapy for diabetes patients with depressive symptoms. Arch Psychiatr Nurs. 2011;25:195-205.
18. Zautra AJ, Davis MC, Reich JW, et al. Comparison of cogni- tive behavioral and mindfulness meditation interventions on adaptation to rheumatoid arthritis for patients with and without history of recurrent depression. J Consult Clin Psychol. 2008;76:408-421.
19. Castellar JI, Fernandes CA, Tosta CE. Beneficial effects of pranic meditation on the mental health and quality of life of breast cancer survivors. Integr Cancer Ther. 2014;13:341-350. 20. Sealy PA. Autoethnography: reflective journaling and medi- tation to cope with life-threatening breast cancer. Clin J Oncol Nurs. 2012;16:38-41.
21. Fouladbakhsh JM, Stommel M, Given BA, Given CW. Predictors of use of complementary and alternative therapies among patients with cancer. Oncol Nurs Forum. 2005;32:1115-1122.
22. Olano HA, Kachan D, Tannenbaum SL, Mehta A, Annane D, Lee DJ. Engagement in mindfulness practices by U.S. adults: sociodemographic barriers. J Altern Complement Med. 2015;21:100-102.
23. Miller FG, Emanuel EJ, Rosenstein DL, Straus SE. Ethical issues concerning research in complementary and alternative medicine. JAMA. 2004;291:599-604.
24. Yi JK, Swartz MD, Reyes-Gibby CC. English proficiency, symptoms, and quality of life in Vietnamese- and ChineseAmerican breast cancer survivors. J Pain Symptom Manage. 2011;42:83-92.
25. Derose KP, Escarce JJ, Lurie N. Immigrants and health care: sources of vulnerability. Health Aff (Millwood). 2007;26:1258-1268.
26. Grossman P, Niemann L, Schmidt S, Walach H. Mindfulnessbased stress reduction and health benefits. A meta-analysis. J Psychosom Res. 2004;57(1):35-43.

27. Barnes VA, Pendergrast RA, Harshfield GA, Treiber FA. Impact of breathing awareness meditation on ambulatory blood pressure and sodium handling in prehypertensive African American adolescents. Ethn Dis. 2008;18(1):1-5.
28. Black DS, Milam J, Sussman S. Sitting-meditation interventions among youth: a review of treatment efficacy. Pediatrics. 2009;124:e532-e541.
29. McCorkle R, Young K. Development of a symptom distress scale. Cancer Nurs. 1978;1:373-378.
30. Lam WW, Law CC, Fu YT, Wong KH, Chang VT, Fielding R. New insights in symptom assessment: the Chinese Versions of the Memorial Symptom Assessment Scale Short Form (MSAS-SF) and the Condensed MSAS (CMSAS). J Pain Symptom Manage. 2008;36:584-595.
31. Chang VT, Hwang SS, Feuerman M, Kasimis BS, Thaler HT. The Memorial Symptom Assessment Scale Short Form (MSAS-SF). Cancer. 2000;89:1162-1171.
32. Cohen J. Quantitative methods in psychology: a power primer. Psychol Bull. 1992;112:155-159.
33. Barnes PM, Bloom B, Nahin RL. Complementary and alter- native medicine use among adults and children: United States, 2007. Natl Health Stat Report. 2008;(12): 1-23.
34. Saydah SH, Eberhardt MS. Use of complementary and alter- native medicine among adults with chronic diseases: United States 2002. J Altern Complement Med. 2006;12:805-812. 35. Su D, Li L. Trends in the use of complementary and alter- native medicine in the UnitePd States: 2002-2007. J Health Care Poor Underserved. 2011;22:296-310.
36. Ou X. The successful integration of Buddhism with Chinese culture: a summary. Grand Valley J Hist. 2011;1(2):1-6. 37. Speca M, Carlson LE, Goodey E, Angen M. A randomized, wait-list controlled clinical trial: the effect of a mindfulness meditation-based stress reduction program on mood and symptoms of stress in cancer outpatients. Psychosom Med. 2000;62:613-622.
38. Coups EJ. Reporting of a randomized controlled trial of Tibetan sound meditation and cognitive functioning among breast cancer patients. Psychooncology. 2013;22:2876.
39. Matchim Y, Armer JM. Measuring the psychological impact of mindfulness meditation on health among patients with cancer: a literature review. Oncol Nurs Forum. 2007;34: 1059-1066.
40. Chen Z, Meng Z, Milbury K, et al. Qigong improves qual- ity of life in women undergoing radiotherapy for breast cancer: results of a randomized controlled trial. Cancer. 2013;119:1690-1698.
41. Yanju B, Yang L, Hua B, et al. A systematic review and metaanalysis on the use of traditional Chinese medicine compound kushen injection for bone cancer pain. Support Care Cancer. 2014;22:825-836.
42. Chan RR, Larson JL. Meditation interventions for chronic disease populations: a systematic review. J Holist Nurs. 2015;33:351-365. doi:10.1177/0898010115570363 43. Biegler KA, Chaoul MA, Cohen L. Cancer, cognitive impairment, and meditation. Acta Oncol. 2009;48:18-26.

44. Kim YH, Kim HJ, Ahn SD, Seo YJ, Kim SH. Effects of meditation on anxiety, depression, fatigue, and quality of life of women undergoing radiation therapy for breast cancer.
Complement Ther Med. 2013;21:379-387.
45. Oncology Nursing Society. ONS Foundation Major Research Grants. 2005 and ONS Foundation Symptom Management Research Grants-(RE21). 2005.

Integrative Cancer Therapies
April-June 2016: 1–8

DOI: 10.1177/1534735416649661
ict.sagepub.com
SAGE

Use of Mindfulness Sitting Meditation in Chinese American Women in Treatment of Cancer

Shan Liu, PhD, RN[1], Guang Qiu, MD, PhD[2], and Wendy Louie, RN[3]

Abstract

Background. Very few studies have been conducted to examine the prevalence, frequency, perceived effectiveness, and possible influencing factors of use of meditation in patients with cancer. *Objectives*. To examine use of mindfulness sitting medication (MSM) in Chinese American women in treatment of cancer, its relationship to specific symptom distress, and possible influencing factors of MSM. *Methods*. Volunteer participants were recruited through the American Cancer Society support groups. The participants completed a demographic data form, a researcher-developed criteria and checklist for MSM, and the Memorial Symptom Assessment Scale–Short Form. *Results*. Eighty-nine Chinese American women with a mean age of 58 years completed the questionnaires. Twenty-one patients (24%) reported the use of MSM during active treatment of cancer. Patients who had higher education, better income, better English proficiency, and health insurance were more likely to use MSM. Patients who had more symptom distress also reported to use more MSM. Most patients (20/21) who used meditation considered it effective. After controlling other variables, better English proficiency, breast cancer, and higher symptom distress predicted the use of MSM in Chinese American women in treatment of cancer. *Conclusions*. About 24% of Chinese American women used MSM in the treatment of cancer and most of them considered it effective. Symptom distress and English proficiency levels predicted the use of MSM. *Implications for Practice*. Given the effectiveness of MSM, oncology nurses could recommend using MSM in Chinese American women in treatment of cancer, especially for patients who had higher symptom distress.

Keywords
mindfulness meditation, Chinese American, cancer, symptom distress, women

Submitted Date: 31 December 2015; Revised Date: 8 April 2016; Accepted Date: 11 April 2016

Introduction

Cancer and its treatment often affect all dimensions of human health and can result in multiple physical and psychological symptoms including fatigue, nausea, depression, anxiety, pain, and so on.[1-3] Complementary and alternative therapies (CAM) may help with the management of multidimensional aspects of these impairments.[4-6] Compared to the general US population, Chinese Americans have reported more frequent use of CAM, which includes Chinese herbal medicine, acupuncture, Chinese massage (tui na), meditation, tai chi, and yoga, to help manage their symptoms.[7,8] In general, females are more frequently associated with CAM use compared to males.[9,10] As such, Lin and Schinke found that Chinese American women were more likely to use CAM compared to Chinese American men.[11]

Mindfulness Meditation, one of these commonly used therapies, is a meditative practice that derives from Buddhist traditions and has been utilized in a variety of clinical settings. According to Kabat-Zinn, a famous teacher of mindfulness meditation, "Mindfulness means paying attention in a particular way; on purpose, in the present moment, and nonjudgmentally."[12] Mindfulness involves acceptance, meaning that participants pay attention to their own thoughts and feelings without judgment—without believing, for instance, that there's a "right" or "wrong" way to think or feel in a given moment.[13] This is achieved through the development of what Buddhist philosophy refers to as "detached

[1]Adelphi University College of Nursing and Public Health, Garden City, NY, USA
[2]The Feinstein Institute for Medical Research, Northwell Health, Manhasset, NY, USA
[3]New York Presbyterian Queen Hospital, Flushing, NY, USA

Corresponding Author:
Shan Liu, Adelphi University College of Nursing and Public Health, One South Avenue, Garden City, NY 11530, USA.
Email: shanliu2008@gmail.com

observation" or "bare attention."[13] Mindfulness meditation involves 4 forms: awareness of sensations, sitting meditation, body scan, and mindful movement.[14] Mindfulness sitting meditation (MSM) is different from mindfulness meditation in physical movement forms, such as tai chi, qigong, yoga, or mindful walking. Focusing on the physical sensation of breathing during sitting meditation is a common technique and easy to experience for those who are new to mindfulness meditation.[14]

Sitting meditation, as the main or only content of multiple medication interventions, has been widely used in chronic illness management. Multiple researches have reported the use of sitting meditation in patients with chronic heart failure, diabetes, HIV/AIDS, and rheumatoid arthritis, among other contitions.[15-18] In patients with cancer, sitting meditation is used to alleviate symptoms or treatment-related side effects. For example, pranic mediation, which is practiced in the sitting position, has been found to reduce pain, anxiety, and depression and improve physical and mental well-being and quality of life for patients with breast cancer.[19,20] Consistent benefits, including improved psychological functioning, reduction of stress-related symptoms, and enhanced quality of life, have been reported in cancer patients who have utilized these practices.[14]

Social demographic factors and symptoms have been found to predict CAM use. Gender; marital status; cancer stage; symptom experience such as pain, depression, and insomnia; and symptom distress were found to predict CAM use in patients with cancer.[7,21] In terms of meditation, greater education and female gender were associated with increased use of mindfulness practice.[22] Ethnic differences have been reported with regard to the use of CAM in patients with cancer.[23] Chinese Americans, in particular, have been reported to have high risk for health disparity.[24,25] However, little is known about influencing factors for the use of meditation in minority groups. As far as we know, our study is the first study to report use of meditation and influencing factors in Chinese American patients with cancer.

The purpose of this study, therefore, is to examine the prevalence, frequency, perceived effectiveness, and possible influencing factors of the use of MSM in Chinese American women with cancer. It is hypothesized that Chinese women with cancer perceive MSM as effective and some sociodemographic factors and symptoms predict use of MSM.

Methods

Design, Setting, and Participants

A descriptive and cross-sectional study was conducted in New York City from September 2012 to May 2013, supported by American Cancer Society Asian Initiatives. Study subjects were recruited through weekly support group programs. Inclusion criteria were that participants had to be Chinese immigrants or American-born Chinese, female, as least 18 years of age, in active treatment of cancer, residing in New York City, and able to give written informed consent. Participants were excluded if they could not communicate in Chinese or English, or had cognition problems that prevented them from responding to questionnaires.

The institutional review board of Adelphi University approved the study. The bilingual researchers in the study attended weekly meetings of the cancer support groups to distribute the questionnaire and explain the study. The individuals who expressed interest in this study met the researchers on site in person after weekly meetings. After informed consent was obtained, each participant was given the self-administered questionnaires. The questionnaires were available in both Chinese and English, but all participants chose the language of Chinese. A $10 gift card was given to each participant as an incentive for completing the questionnaire. It took 20 to 30 minutes for the participants to complete the questionnaires.

Measures

Demographic and Clinical Information

Demographic data including age, marital status, education, religion, years in the United States, English proficiency level, annual household income, and health insurance were collected. Clinical data including type of cancer, stage of cancer at diagnosis, and cancer treatments (eg, surgery, chemotherapy and radiation therapy) were collected.

Mindfulness Sitting Meditation

Mindfulness sitting meditation and its effectiveness were assessed using a few questions on the CAM scale checklist developed by the researchers. The Cronbach's α of this checklist was .85 in this study. We assessed sitting meditation in mindfulness meditation only; participants who practiced other CAMs such as tai chi, qigong, or yoga were not included. Before participants completed the questionnaires, the bilingual researchers explained the criteria of MSM to potential participants in a quiet, separate room. MSM criteria included the following: sitting comfortably for at least 10 minutes, focusing on breathing, muscle and logic relaxation, attention to the present, acceptance and being nonjudgmental. The criteria were based on definition/features of MSM.[12,26] The 10-minute length of breathing awareness mindful meditation intervention[27] represented the beginning level of mindful meditation and could be practiced by participants themselves without instructions.[27,28] The questions about use of MSM in the CAM checklist were the following: Have you used MSM in active treatment of cancer (Yes or No)? How frequently did you use it (times per month)? How effective was it? (not effective/a little

effective/somewhat effective/very effective). Tai chi, qigong, yoga, and other mindfulness meditation with physical movements were not considered as MSM in this study.

Symptom Distress

Symptom distress is commonly defined as "the degree of discomfort reported by patients in relation to the perception of the symptoms being experienced."[29] Symptoms were assessed using the Memorial Symptom Assessment Scale–Short Form (MSAS-SF). Participants were asked to rate their symptoms during active treatment of cancer. The MSAS-SF is an instrument in which the participant rates symptom distress associated with 26 physical symptoms and the frequency of 4 psychological symptoms. For physical symptoms, distress is rated on a 5-point Likert-type scale ranging from 0 to 4 (symptom not present; symptom present but no distress; symptom present with a little bit of distress; symptom present with some distress, symptom present with quite a bit of distress, symptom present with very high distress). Frequency of psychological symptoms was scored as rarely (1), occasionally (2), frequently (3), and almost constantly (4). The 3 subscales of the MSAS-SF are the Global Distress Index (4 psychological symptoms: feeling sad, worrying, feeling irritable, and feeling nervous, and 6 physical symptoms: lack of energy, pain, lack of appetite, feeling drowsy, constipation, and dry mouth); the Physical Symptom Distress Scale, which comprises 12 prevalent physical symptoms (lack of energy, pain, lack of appetite, feeling drowsy, constipation, dry mouth, nausea, vomiting, change in taste, weight loss, feeling bloated, and dizziness); and the Psychological Symptom Distress Score, which includes 6 prevalent psychological symptoms (worrying, feeling sad, feeling nervous, difficulty sleeping, feeling irritable, and difficulty concentrating). MSAS-SF has been reported to have validity and reliability in both American and Chinese populations.[30,31]

Data Analysis

All data analysis was performed using SPSS version 22. Descriptive statistics (means, standard deviations for continuous variables, and frequency distributions and proportions for categorical variables) were employed to describe the participants' demographic and clinical characteristics. Chi-squared tests for contingency tables were used to examine the relationship between demographic and clinical characteristics and MSM (meditation and nonmeditation group). Frequencies and means were used to describe the effectiveness and frequency of MSM. A Mann-Whitney *U* test was used to evaluate how MSM correlated with symptom distress. Binary logistic regression analysis was applied to examine the predictors of the use of MSM. A power calculation demonstrated that, with a sample size of 78, the study had a power of >80% to detect an absolute 40% difference in symptom distress at a significance level of .05, using a Mann Whitney *U* test. A difference of at least 40% was estimated to be clinically relevant. Additionally, a sample of 85 patients was used for regression analysis and provided similar power with regard to the study at the same α level ($P < .05$) with an effect size of 0.15. The effect size 0.15 was the medium effect size, using regression analysis that was capable of detecting a difference among groups.[32]

Results

Eighty-nine Chinese American women, with a mean age of 58 years, completed the questionnaires. The average length of time from when participants immigrated to the United States was 20 years (with a range from 10 to 30 years). The majority (91%) had a diagnosis of breast cancer and 61% reported early-stage cancer (stage I or II) at diagnosis. Twenty-one patients (24%) reported using MSM during active treatment of cancer. Participants who used MSM had better English proficiency ($P = .001$), better income ($P = .002$), more education ($P = .041$), and better insurance coverage ($P = .036$) compared to participants who did not use MSM during active cancer treatment. There were no significant differences in age, marital status, religion, years in the United States, type of cancer, site of cancer, stage of cancer at diagnosis, or cancer treatments between the 2 groups. See Table 1 for detailed information.

The frequency of use of MSM (14.6 ± 6) ranged from 6 to 20 times, with an average of 14 times per month. Among 21 patients who used MSM, 3 perceived it to be very effective, 12 perceived it to be somewhat effective, 5 perceived it be a little effective, and 1 did not perceive it to be effective at all (Figure 1).

Table 2 demonstrates the positive association between the use of MSM and symptom distress. Patients who had more symptom distress on individual symptoms, including lack of energy ($P = .022$), nausea ($P = .006$), feeling drowsy ($P = .001$), difficulty sleeping ($P = .007$), mouth soreness ($P = .018$), itching ($P = .016$), lack of appetite ($P = .005$), numbness and tingling on hand/feet ($P = .009$), change in food taste ($P = .006$), hair loss ($P = .002$), and nervousness ($P = .024$) were more likely to use MSM. In addition, the number of total symptoms ($P = .003$) and MSAS total score ($P < .001$) were positively associated with use of MSM.

Bivariate regression analysis was applied in order to examine possible influencing factors of use of MSM (Table 3). After adjusting for all demographic variables, English proficiency ($P = .002$), cancer type ($P = .034$), and total symptom distress score ($P = .016$) most commonly predicted the use of MSM. Patients who had better English proficiency level, were diagnosed with breast cancer, and had more symptom distress were more likely to use MSM.

Table 1. Demographic and Clinical Characteristics Between the 2 Groups.

	Total Sample (N = 89)		
	MSM Group (n = 21), n	Non-MSM Group (n = 68), n	*P*
English proficiency			<.001
None	1	18	
Little	3	35	
Fair	7	8	
Good	8	6	
Very good	2	1	
Annual income			<.001
0-9999	5	43	
10 000-29 999	9	20	
30 000-49 999	4	4	
50 000-69 999	1	1	
70 000-89 999	2	0	
Education			.041
Grade school	7	42	
Vocational/technical school	4	10	
College or graduate school	10	16	
Religion			.089
None	4	26	
Christian/Catholic	8	14	
Buddhism/Taoism	9	28	
Marital status			.391
Married/partner	17	58	
Not married (single/separated/divorced/widowed)	4	10	
Insurance			.035
Medicare/Medicaid	10	53	
Private	10	14	
Out of pocket	1	1	
Type of cancer			.094
Breast cancer	19	61	
Other	2	7	
Treatment			.772
Surgery only	3	12	
Chemotherapy and/or radiation	3	10	
Surgery with chemotherapy and/or radiation	15	46	
Stage of cancer at diagnosis			.398
I-II	13	41	
III-IV	8	27	
	Mean ± SD	Mean ± SD	
Age	58.4 ± 7.4	58.1 ± 10.9	.964
Years in the United States	22 ± 9.5	19.4 ± 10.1	.248

Abbreviations: MSM, mindfulness sitting meditation; SD, standard deviation.

Discussion

In this study, we found that approximately 24% of patients used MSM during their cancer treatment in this study. A recent National Health Interview Survey reported that use of meditation in general adult population was approximately 9%.[33] Participants with chronic diseases such as cancer, diabetes, and arthritis were reported to have used relaxation techniques and other CAMs more than patients without chronic illness.[34] Another national survey study found that the number of Asian Americans who used relaxation techniques increased slightly from 16.39% in 2002 to 17.47% in 2007, which was similar to our finding.[35] The relatively high percentage of the use of MSM in this study

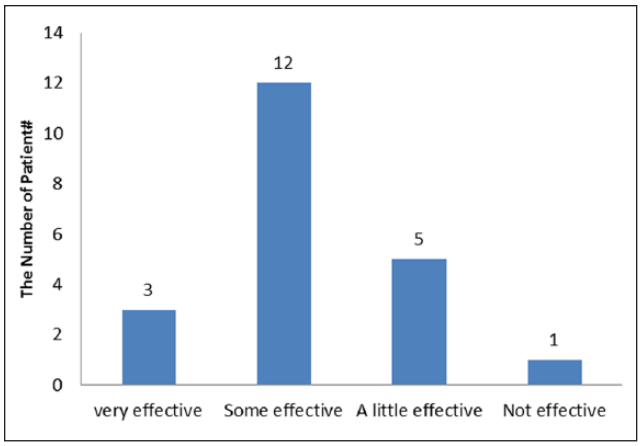

Figure 1. Perceived effectiveness of use of mindfulness sitting medication in Chinese American women in treatment of cancer.

suggested that MSM was a commonly used CAM in Chinese American women with cancer.

In this study, we found that participants who had better English proficiency were more likely to use MSM, after controlling other variables. Mindfulness meditation was rooted in Buddhism around 2500 years ago. Buddhism, as the most popular religion in China, has shaped Chinese culture in a wide variety of areas over the course of approximately 2000 years.[36] Surprisingly, however, the English language proficiency level, which is one important indicator of adaptation to Western culture, was found to be a significant predictor of use of MSM in Chinese American women with cancer in this study. One possible reason for the impact of English language proficiency on MSM is that the Chinese population typically does not use meditation in coping with chronic illness. Instead, meditation is replaced with traditional Chinese mind-body techniques such as Taiji and Qigong. In searching the literature, no studies were found in the English language that focus on the Chinese/Chinese American population with regard to the use of meditation in cancer or other chronic illnesses, while many studies have been published on the use of meditation in other populations.[37-39] On the other hand, many studies about use of Qigong and Taiji in chronic illness in the Chinese population have been published.[40,41] Chinese American patients with higher proficiency in the English language might be more likely accept MSM than patients with limited English proficiency, as they might have better accessibility to published articles regarding the benefits of meditation, or they might be referred by Western physicians or nurses who have experiences with meditation and, therefore, be more willing to utilize practices, such as MSM, that have become more common in the Western world.

In this study, socioeconomic status (SES) factors including education, income, and insurance coverage were significantly associated with whether or not patients used MSM. Though these SES factors did not remain significant after controlling other variables, it has been reported in the literature that SES factors do affect the use of meditation. One recent US National Health Interview Survey study found that SES factors were related to engagement in meditation and that greater education was associated with using mindfulness meditation practices.[22] Another study reported that patients who were of an older age, female, better educated, and from upper-middle class families were more likely to use meditation.[42] The reason that we did not find that SES factors predicted the use of MSM in this study might be due to small sample size, or simply that certain symptoms played more important roles than SES factors in predicting use of MSM in these Chinese American women.

Most participants (20/21) in our study who used MSM for treatment of their cancer symptoms considered it to be effective. Previous studies have identified that meditation can relieve multiple symptoms and improve quality of life,[14,43,44] findings that were consistent with the reported effectiveness of MSM in our study. Since most patients who used MSM reported MSM as effective, oncology physicians and nurses might want to consider recommending that Chinese American women with cancer utilize it more.

To our best knowledge, our study is the first study to report symptom distress as an independent predictor of using MSM in patients with cancer. Previous national survey studies have reported that patients who had chronic illnesses were more likely to use meditation compared to patients without chronic illnesses.[34] In a 2002 National Health Interview Survey study, pain, depression, and insomnia were found to be strong predictors of CAM use,[6] findings that were similar to those from our study. Severe symptom distress was an important impetus for Chinese American women to use MSM in treatment of cancer.

Limitations

The study had several limitations. First, the measurement of MSM was based on the criteria of beginning level of mindfulness meditation. The study did not examine the duration of MSM and the skill levels of participants (novice/intermediate/expert). Though a mindfulness meditation scale was not used to measure MSM in this study, the researchers who collected the data were skilled in mindfulness meditation. During the data collection, the researchers talked with every potential participant to ensure that they met the criteria of MSM. Second, the participants in this study represented a convenience sample and did not represent all Chinese American women with cancer in the United States. Third, the sample size was small, and future studies with bigger sample sizes are needed to verify the results in this study.

Table 2. Mann-Whitney *U* Test: Association Between Meditation and Symptom Distress.

Symptom Distress	MSM Users (n = 21)	Non-MSM Users (n = 68)	Mann-Whitney *U*	*Z*	*P*
Lack of energy	1.88	.90	1.068	2.81	.022
Feeling drowsy	2.07	.91	1.142	3.42	.001
Nausea	1.52	.62	1.117	2.68	.006
Difficulty sleeping	2.10	1.24	1.048	2.56	.007
Numbness and tingling in hands and feet	2.15	1.13	1.053	2.77	.009
Mouth sore	1.67	.74	1.023	2.39	.018
Itching	1.04	.49	1.013	2.34	.016
Lack of appetite	2.00	1.08	1.108	2.63	.005
Change in food taste	1.95	.97	1.069	2.38	.006
Hair loss	2.67	1.30	1.223	3.06	.002
Nervous	2.07	1.38	1.068	2.14	.024
Number of symptoms	18.45	13.45	1.173	2.75	.003
Total symptom distress score	44.89	26.79	1.170	3.16	<.001

Abbreviation: MSM, mindfulness sitting meditation.

Table 3. Logistic Regression Predicting Whether Patients Use Mindfulness Sitting Meditation.

Model	Beta	Wald	*P*	OR	95% CI
Intercept	−7.411	1.643	.162	0.003	
Age	0.002	0.701	.511	1.023	0.985-1.008
Year of diagnosis	0.005	0.877	.219	1.055	0.987-1.009
Years in the United States	−0.048	1.654	.287	0.874	0.858-1.014
English level	1.585	8.534	**.002***	6.327	1.950-15.652
Marital status	−0.172	0.059	.759	0.807	0.286-2.521
Education	−0.318	0.202	.474	0.763	0.291-2.031
Religion	0.389	0.608	.405	1.328	0.569-3.976
Salary	0.201	0.275	.503	1.058	0.549-2.149
Insurance	0.217	0.397	.698	1.401	0.564-2.976
Type of cancer	−1.886	4.695	**.032***	0.098	0.007-0.689
Stage of cancer	0.498	2.014	.115	1.694	0.765-3.891
Treatment	−0.755	1.611	.198	0.483	0.171-1.502
Total symptom distress score	0.040	5.821	**.016***	1.057	1.011-2.051

Abbreviations: OR, odds ratio; CI, confidence interval.
*English proficiency (P = .002), type of cancer (P = .034), and total symptom distress score (P = .016) significantly predicted whether patients use MSM.

Implications for Clinical Practice and Research

In cancer practice, research on symptoms has been the focus of study for many years and remains a high priority.[45] We found that most patients in this study perceived MSM to be effective in some way (from little effective to very much effective). The strong relationship between symptom distress and MSM in this study suggested that Chinese American women with cancer have tried to use MSM to manage symptom distress successfully. This increased use may be due to the growing body of evidence with regard to the benefits of MSM in patients with cancer. Therefore, oncology physicians and nurses who are helping Chinese American patients with symptom management should encourage the use of MSM more, especially for patients who have severe symptom distress. See Figure 2 for guidance of MSM. Given a distressed mind is more difficult to calm without experience, oncology physicians and nurses might introduce MSM practice and refer patients to a

Sit on a comfortable chair in a quiet place for 10 minutes or longer
Focus on breathing only
Focus on the present moment without judgment
Try to enter a state of muscle and logic relaxation
May or may not incorporate music
May or may not close eyes
May or may not sit in Zen position
May practice daily or at your own pace

Figure 2. Guidance about Practice Mindfulness Sitting Meditation.

meditation practitioner before the presence of distress such as before surgery or chemotherapy/radiation therapy so that Chinese American patients with severe symptom distress could practice MSM more effectively.

Similar to other studies, this study found that MSM was associated with SES factors including education, income, insurance coverage, and English proficiency. Participants who had better education, income, and insurance were more likely to use MSM during their cancer treatment. Given the effectiveness of MSM perceived by patients in this study, oncology physician and nurses should encourage not only Chinese American with severe symptom distress but also Chinese American with poor English proficiency level and low SES to practice MSM.

The small number of studies conducted in the United States regarding effectiveness and influencing factors of MSM limits the use of MSM as an intervention for patients with cancer. MSM is a type of CAM that many patients can practice by themselves at home, as it requires little cost and minimal supervision. More studies about use of MSM in cancer treatments are warranted to address the needs of patients with cancer. Future studies should include an emphasis on improved methodologies. For example, descriptive studies should examine the detailed information of doses, frequency, length of home practice, and skill level of practice and influencing factors of meditation. Studies could also be expanded to include the effect of MSM in different cancers and minority groups.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Internal Faculty Development Grant of Adelphi University.

References

1. Cleeland CS, Zhao F, Chang VT, et al. The symptom burden of cancer: evidence for a core set of cancer-related and treatment-related symptoms from the Eastern Cooperative Oncology Group Symptom Outcomes and Practice Patterns study. *Cancer*. 2013;119:4333-4340.
2. Wu HS, Harden JK. Symptom burden and quality of life in survivorship: a review of the literature. *Cancer Nurs*. 2015;38(1):E29-E54.
3. Liu S, Ercolano E, Siefert ML, McCorkle R. Patterns of symptoms in women after gynecologic surgery. *Oncol Nurs Forum*. 2010;37(2):E133-E140.
4. Lee MM, Lin SS, Wrensch MR, Adler SR, Eisenberg D. Alternative therapies used by women with breast cancer in four ethnic populations. *J Natl Cancer Inst*. 2000;92:42-47.
5. Wanchai A, Armer JM, Stewart BR. Complementary and alternative medicine use among women with breast cancer: a systematic review. *Clin J Oncol Nurs*. 2010;14(4):E45-E55.
6. Fouladbakhsh JM, Stommel M. Gender, symptom experience, and use of complementary and alternative medicine practices among cancer survivors in the U.S. cancer population. *Oncol Nurs Forum*. 2010;37(1):E7-E15.
7. Liu S, Sun Y, Louie W. Symptom distress and its association with traditional Chinese medicine use in Chinese American women with cancer. *Oncol Nurs Forum*. 2015;42(1):E24-E32.
8. Hsiao AF, Wong MD, Goldstein MS, Becerra LS, Cheng EM, Wenger NS. Complementary and alternative medicine use among Asian-American subgroups: prevalence, predictors, and lack of relationship to acculturation and access to conventional health care. *J Altern Complement Med*. 2006;12:1003-1010.
9. Gan GG, Leong YC, Bee PC, Chin E, Teh AK. Complementary and alternative medicine use in patients with hematological cancers in Malaysia. *Support Care Cancer*. 2015;23:2399-2406.
10. Bauml JM, Chokshi S, Schapira MM, et al. Do attitudes and beliefs regarding complementary and alternative medicine impact its use among patients with cancer? A cross-sectional survey. *Cancer*. 2015;121:2431-2438.

11. Lin F, Schinke S. Complementary alternative medicine use among Chinese Americans: findings from a community mental health service population. *Psychiatr Serv*. 2007;58:402-404.
12. Kabat-Zinn J. *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. Revised ed. New York, NY: Random House; 2013.
13. Baer R. Mindfulness training as a clinical intervention: a conceptual and empirical review. *Clin Psychol Sci Pract*. 2003;10:125-143.
14. Ott MJ, Norris RL, Bauer-Wu SM. Mindfulness meditation for oncology patients: a discussion and critical review. *Integr Cancer Ther*. 2006;5:98-108.
15. Chhatre S, Metzger DS, Frank I, et al. Effects of behavioral stress reduction transcendental meditation intervention in persons with HIV. *AIDS Care*. 2013;25:1291-1297.
16. Curiati JA, Bocchi E, Freire JO, et al. Meditation reduces sympathetic activation and improves the quality of life in elderly patients with optimally treated heart failure: a prospective randomized study. *J Altern Complement Med*. 2005;11:465-472.
17. Rungreangkulkij S, Wongtakee W, Thongyot S. Buddhist group therapy for diabetes patients with depressive symptoms. *Arch Psychiatr Nurs*. 2011;25:195-205.
18. Zautra AJ, Davis MC, Reich JW, et al. Comparison of cognitive behavioral and mindfulness meditation interventions on adaptation to rheumatoid arthritis for patients with and without history of recurrent depression. *J Consult Clin Psychol*. 2008;76:408-421.
19. Castellar JI, Fernandes CA, Tosta CE. Beneficial effects of pranic meditation on the mental health and quality of life of breast cancer survivors. *Integr Cancer Ther*. 2014;13:341-350.
20. Sealy PA. Autoethnography: reflective journaling and meditation to cope with life-threatening breast cancer. *Clin J Oncol Nurs*. 2012;16:38-41.
21. Fouladbakhsh JM, Stommel M, Given BA, Given CW. Predictors of use of complementary and alternative therapies among patients with cancer. *Oncol Nurs Forum*. 2005;32:1115-1122.
22. Olano HA, Kachan D, Tannenbaum SL, Mehta A, Annane D, Lee DJ. Engagement in mindfulness practices by U.S. adults: sociodemographic barriers. *J Altern Complement Med*. 2015;21:100-102.
23. Miller FG, Emanuel EJ, Rosenstein DL, Straus SE. Ethical issues concerning research in complementary and alternative medicine. *JAMA*. 2004;291:599-604.
24. Yi JK, Swartz MD, Reyes-Gibby CC. English proficiency, symptoms, and quality of life in Vietnamese- and Chinese-American breast cancer survivors. *J Pain Symptom Manage*. 2011;42:83-92.
25. Derose KP, Escarce JJ, Lurie N. Immigrants and health care: sources of vulnerability. *Health Aff (Millwood)*. 2007;26:1258-1268.
26. Grossman P, Niemann L, Schmidt S, Walach H. Mindfulness-based stress reduction and health benefits. A meta-analysis. *J Psychosom Res*. 2004;57(1):35-43.
27. Barnes VA, Pendergrast RA, Harshfield GA, Treiber FA. Impact of breathing awareness meditation on ambulatory blood pressure and sodium handling in prehypertensive African American adolescents. *Ethn Dis*. 2008;18(1):1-5.
28. Black DS, Milam J, Sussman S. Sitting-meditation interventions among youth: a review of treatment efficacy. *Pediatrics*. 2009;124:e532-e541.
29. McCorkle R, Young K. Development of a symptom distress scale. *Cancer Nurs*. 1978;1:373-378.
30. Lam WW, Law CC, Fu YT, Wong KH, Chang VT, Fielding R. New insights in symptom assessment: the Chinese Versions of the Memorial Symptom Assessment Scale Short Form (MSAS-SF) and the Condensed MSAS (CMSAS). *J Pain Symptom Manage*. 2008;36:584-595.
31. Chang VT, Hwang SS, Feuerman M, Kasimis BS, Thaler HT. The Memorial Symptom Assessment Scale Short Form (MSAS-SF). *Cancer*. 2000;89:1162-1171.
32. Cohen J. Quantitative methods in psychology: a power primer. *Psychol Bull*. 1992;112:155-159.
33. Barnes PM, Bloom B, Nahin RL. Complementary and alternative medicine use among adults and children: United States, 2007. *Natl Health Stat Report*. 2008;(12):1-23.
34. Saydah SH, Eberhardt MS. Use of complementary and alternative medicine among adults with chronic diseases: United States 2002. *J Altern Complement Med*. 2006;12:805-812.
35. Su D, Li L. Trends in the use of complementary and alternative medicine in the UnitePd States: 2002-2007. *J Health Care Poor Underserved*. 2011;22:296-310.
36. Ou X. The successful integration of Buddhism with Chinese culture: a summary. *Grand Valley J Hist*. 2011;1(2):1-6.
37. Speca M, Carlson LE, Goodey E, Angen M. A randomized, wait-list controlled clinical trial: the effect of a mindfulness meditation-based stress reduction program on mood and symptoms of stress in cancer outpatients. *Psychosom Med*. 2000;62:613-622.
38. Coups EJ. Reporting of a randomized controlled trial of Tibetan sound meditation and cognitive functioning among breast cancer patients. *Psychooncology*. 2013;22:2876.
39. Matchim Y, Armer JM. Measuring the psychological impact of mindfulness meditation on health among patients with cancer: a literature review. *Oncol Nurs Forum*. 2007;34:1059-1066.
40. Chen Z, Meng Z, Milbury K, et al. Qigong improves quality of life in women undergoing radiotherapy for breast cancer: results of a randomized controlled trial. *Cancer*. 2013;119:1690-1698.
41. Yanju B, Yang L, Hua B, et al. A systematic review and meta-analysis on the use of traditional Chinese medicine compound kushen injection for bone cancer pain. *Support Care Cancer*. 2014;22:825-836.
42. Chan RR, Larson JL. Meditation interventions for chronic disease populations: a systematic review. *J Holist Nurs*. 2015;33:351-365. doi:10.1177/0898010115570363
43. Biegler KA, Chaoul MA, Cohen L. Cancer, cognitive impairment, and meditation. *Acta Oncol*. 2009;48:18-26.
44. Kim YH, Kim HJ, Ahn SD, Seo YJ, Kim SH. Effects of meditation on anxiety, depression, fatigue, and quality of life of women undergoing radiation therapy for breast cancer. *Complement Ther Med*. 2013;21:379-387.
45. Oncology Nursing Society. *ONS Foundation Major Research Grants. 2005 and ONS Foundation Symptom Management Research Grants-(RE21)*. 2005.