

Mindful Self-Care and Secondary Traumatic Stress Mediate a Relationship Between Compassion Satisfaction and Burnout Risk Among Hospice Care Professionals

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Abstract

Background: Effective self-care in hospice is anecdotally proclaimed to reduce burnout risk. Yet, the topic has received little empirical attention. **Purpose:** This study developed a model for predicting burnout risk from compassion satisfaction (CS), secondary traumatic stress (STS), and mindful self-care. **Participants:** Hospice care professionals (n = 324). **Design:** Cross-sectional self-report survey. **Results:** Mindful self-care was correlated with CS ($r = 0.497, p < .01$), Burnout ($r = -0.726, p < .01$), and STS ($r = -0.276, p < .01$). A multiple regression model indicated that the combined effect of CS, STS, and mindful self-care explained 73.7% of the variance in Burnout. Mindful self-care and STS mediated a relationship between CS and Burnout. Each self-care category was statistically significant protective factors against burnout risk ($p < .01$). Associations with Burnout in order of strength were self-compassion and purpose (SC; $r = -0.673$), supportive structure (SS; $r = -0.650$), mindful self-awareness (MS; $r = -0.642$), mindful relaxation (MR; $r = -0.531$), supportive relationships (SR; $r = -0.503$), and physical care (PC; $r = -0.435$). However, for STS, only SS ($r = -0.407, p < .01$) and MR ($r = -0.285, p < .05$) were statistically significant protective factors. **Conclusion:** Hospice care professional had higher self-care, CS, lower STS, and Burnout compared to published norms. Those who engaged in multiple and frequent self-care strategies experienced higher professional quality of life. Implications for hospice providers and suggestions for future research are discussed.

Keywords

self-care, burnout, hospice, compassion satisfaction, secondary traumatic stress

Introduction

Hospice care professionals (HCP) caring for patients and families experience a powerful phenomenon: compassion satisfaction (CS)—feeling good about doing good. However, they are also exposed to potentially psychologically stressful situations that constellate around the dying process which can cause compassion fatigue. Compassion fatigue includes two elements: secondary traumatic stress (STS) and burnout. Professional quality of life (ProQOL) has been studied extensively in health-care.¹⁻⁷ Stamm's approach to operationalizing CS and compassion fatigue (STS and burnout) has become the de facto standard for measuring ProQOL.¹ The practice of effective self-care while serving in hospice care is anecdotally proclaimed to increase ProQOL and reduce burnout risk. Yet, the topic has received little empirical study.

The extensive research conducted by Vachon⁸⁻¹¹ has greatly advanced our understanding of occupational stress in hospice and palliative care settings. Stress leading to burnout was largely associated with organizational factors.¹⁰ Vachon found that “personal coping strategies and the development of supportive collaborative relationships within the work

environment are essential to the enhancement of self-esteem and professional effectiveness.”^{9(p152)}

Hospice professionals experience many intrinsic emotional rewards from caring for patients and often helping them cope better with the dying process. Compassion satisfaction is the term used to describe this powerful phenomenon.¹ For healthcare professionals, few experiences are more rewarding than serving patients on their healing journey, whether healing is curative in nature or palliative in the case of end-of-life hospice care. Stamm identified CS as a possible factor that counterbalances the risks of burnout and STS and suggested that this may account for the “resiliency of the human spirit.”¹

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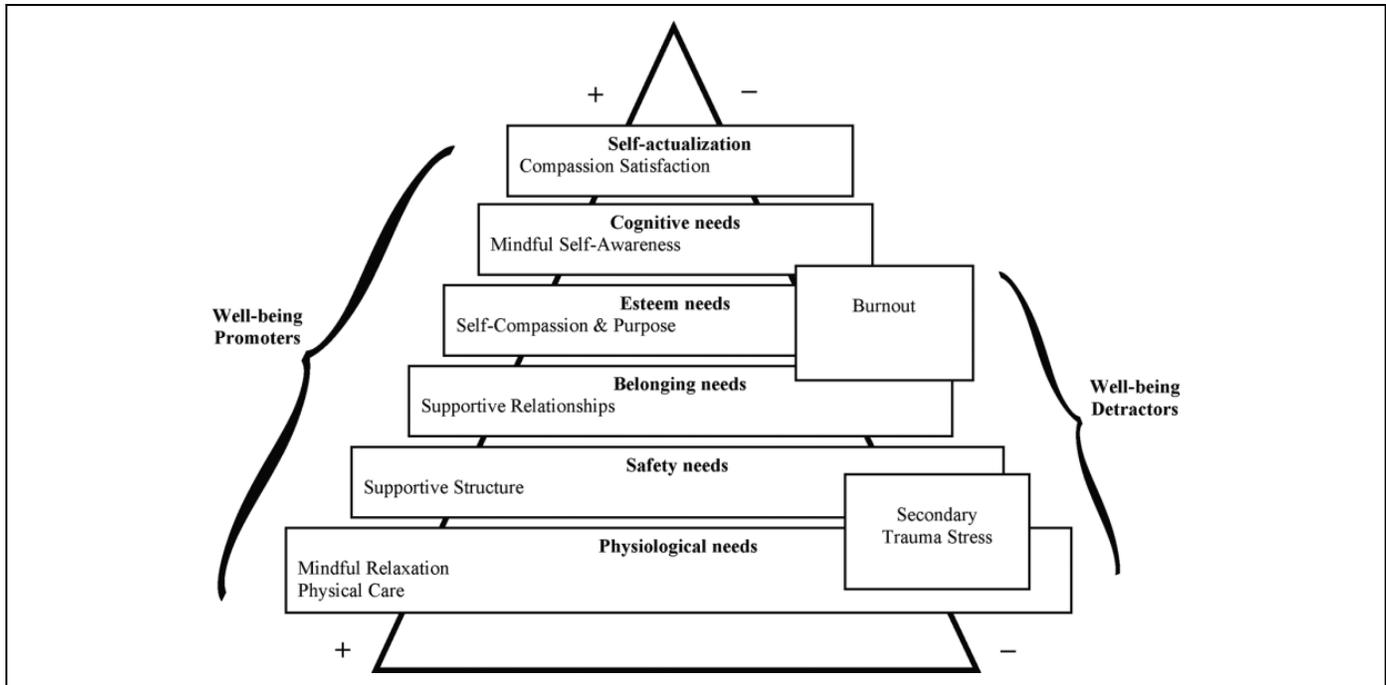


Figure 1. Proposed conceptual model based on adaptation of Maslow's hierarchy of needs.

Indeed, in all sourced ProQOL hospice studies, CS was negatively correlated with both STS and burnout.¹²⁻¹⁴

Although similar, burnout and STS are not identical constructs and must be distinguished.^{2,4} Burnout is made up of three components that can lead to feelings of hopelessness and inability to serve clients effectively: emotional exhaustion, cynicism, and inefficiency in their job roles. Burnout tends to occur over time and may increase the effect of secondary traumatic stress.² Burnout can lead to loss of productivity and the need for personal time off. Stamm suggests that burnout, as measured by the ProQOL, is broad in its application since it can relate to a stress response in any profession beyond the helping professions.¹⁵ Whereas STS is experienced largely on the emotional level by staff and doesn't necessarily cause loss of productivity. Unique to the helping professions, STS is a highly applicable concept within the hospice workforce.

Secondary traumatic stress is associated with the cost of caring for others in emotional pain and is almost identical to post-traumatic stress disorder.^{3,6} Stamm distinguishes that burnout can be experienced by anyone, whereas STS is a phenomenon of the helping professions.¹⁵ Helping professionals experiencing STS can still provide care for clients, albeit in a compromised way.¹⁶ Self-care is believed to be an intervention to combat burnout and STS.

Theoretical Framework

In this study, a synthesis of Maslow's hierarchy of needs,¹⁷ mindful self-care by Cook-Cottone,¹⁸ and Watson's theory of human caring¹⁹ provided the theoretical framework for understanding needs and motivations relevant to hospice caregiving. Figure 1 illustrates the theoretical framework for the study. The

premise of Maslow's model is that deficiency motivations must be met before higher motivations manifest.²⁰ Maslow's hierarchy of needs is often represented in a pyramidal structure with deficiency motivations at the base (physiological, safety, belonging, esteem), culminating in a growth motivation (self-actualization).

Theoretically, a self-care plan and supportive hospice culture that addresses HCP deficiency needs would foster self-actualization, thus increasing HCP compassion satisfaction. Hospice care professional who are self-actualized conceptualize their work as a "calling" that enhances life meaningfulness—compassion satisfaction. Factors in the hospice environment either promote well-being through CS and mindful self-care or distract from well-being through experiences of STS or burnout.

Watson's theory of human caring¹⁹ includes 10 caring factors as the basis of healthcare processes and the interpersonal caring relationship. A professional's moral commitment, consciousness to protect human dignity, and wholeness that Watson describes are similar to Maslow's theory that caring would be dependent on the fulfillment of higher order needs. The fulfillment of CS as a higher order need requires lower deficiencies to be met through personal and organizational self-care.

"Mindful self-care is an iterative process that involves (a) mindful self-awareness and assessment of one's internal needs and external demands and (b) intentional engagement in specific practices of self-care to address needs and demands in a manner that serves one's well-being and personal effectiveness."^{18(p161)} With its roots in mindfulness-based stress reduction and dialectic behavioral therapy, mindful self-care is an integration of mindfulness and practices indicated in more traditional conceptualizations of self-care.^{18,21-26}

Without positive embodiment, an individual may experience a sense of disconnection, burnout, conflict, and maladaptive coping strategies including the following: substance-use problems, behavioral addictions (such as gambling, disordered eating), and anxiety disorders.^{21,27} In particular, in the emotionally intense field of hospice, the ability to peacefully inhabit one's body, maintain good boundaries, and be fully present during the compassionate care for patients and families is essential.

The steady and intentional practice of mindful self-care is seen as protective by reducing the onset of mental health symptoms, job burnout, and improving productivity. The Mindful Self-Care Scale (MSCS) is intended to help individuals identify areas of strength and weakness in mindful self-care to improve self-care strategies. The subscales fit well with Maslow's theory. Six self-care domains and corresponding Maslow needs are as follows: physical care (PC) and mindful relaxation (MR; physiological needs), supportive structure (SS; safety needs), supportive relationships (SR; belonging needs), mindful self-awareness (MS; cognitive needs), and self-compassion and purpose (SC; esteem needs).^{18,20}

Additionally, the practice of compassion itself, an essential aspect of caring for patients and families, can serve as self-care. CS is the pleasure or positive aspects gleaned from caring altruism—a self-actualizing force. The ability to feel good about one's contribution at work can assist in better overall mental well-being.¹

Purpose of the Study

The purpose of this study was to provide a model for predicting the risk of burnout from knowledge of ProQOL and self-care practices of HCP in the United States. The study also aimed to examine the relationship between specific self-care strategies and the ProQOL of HCP.

Measures

Demographic and Professional Characteristics

Demographic variables in the questionnaire included age, gender, ethnicity, and highest education attained. Professional characteristics included employment status, hospice discipline, and years of healthcare experience.

Mindful Self-Care Scale

The MSCS is a 33-item scale that measures the self-reported frequency of self-care behaviors. These scales are the result of an exploratory factor analysis of a large community sample. The subscales are positively correlated with body esteem and negatively correlated with substance use and eating disordered behavior. The MSCS total and subscales have strong internal consistency reliability. In this study, Cronbach's coefficient α was 0.89 for the total 33-item MSCS. For the subscales, α were PC (0.89), SR (0.86), mindful self-awareness (0.92), self-

compassion and purpose (0.83), MR (0.77), and SS (0.77). The MSCS also showed construct validity.¹⁸

Professional Quality of Life Scale

Stamm's approach to operationalizing CS, STS, and Burnout was selected because all three of the concepts were examined within one reliable, validated tool pertinent to helping professionals.^{1,15} The scale has been utilized internationally and has been psychometrically validated in various populations.^{1,28} Each of the ProQOL's 3 scales is psychometrically unique and cannot be combined with the other scores. It contains 30 items in total (with 5-point Likert measures). Each raw scale has a maximum of 50 points, with the following α reliabilities in this study: CS ($\alpha = 0.87$), STS ($\alpha = 0.80$), and Burnout ($\alpha = 0.72$).¹

Methods

Target Population

VITAS healthcare, the largest provider of end-of-life care in the United States, was the target population of this study. The guidelines laid out by for survey research were followed.²⁹ A research proposal was approved by both VITAS' Internal Review Board (IRB) and Cornerstone University's IRB since their assessment affirmed that the research activity had minimal risk to human participants. The survey commenced with a statement on informed consent. Assurances of anonymity, confidentiality, and the principal researcher's contact info were provided.

Analysis

This research used descriptive, analytical, and inferential methods to examine the relationship between self-care practices and the ProQOL of HCP. The ProQOL, MSCS total, and subscales were scored using the prescribed coding methods in their manuals. A missing value analysis was performed in SPSS v24. Forty-seven surveys that were missing more than 5% of responses were removed from the analyses. Listwise deletion was utilized in these cases.³⁰ The hypotheses were tested in the following way.

Hypothesis 1: HCP who engaged in multiple and frequent self-care strategies would experience higher ProQOL, specifically higher CS, lower burnout risk, and STS symptoms. The following subhypotheses provide the opportunity to test each component independently.

Hypothesis 1a: CS and MSCS will be positively correlated.

Hypothesis 1b: STS and MSCS will be negatively correlated.

Hypothesis 1c: Burnout and MSCS will be negatively correlated.

Hypothesis 1d: Age, years of healthcare experience, education, hospice discipline, and employment status will predict Burnout.

Hypothesis 1e: Multiple self-care strategies will be practiced by HCP at least three days/wk.

Pearson correlation tests were performed to describe the correlations between each of the following: the ProQOL variables, MSCS total, and each of the MSCS subscales. A multiple regression model was used to test predictors of Burnout.

Hypothesis 2a: MSCS will mediate a relationship between CS and Burnout.

Hypothesis 2b: STS will mediate a relationship between CS and Burnout.

The PROCESS tool (version 3.0) was used to test whether MSCS and STS mediated a relationship between CS and Burnout by comparing the direct and indirect effects.³¹ A linear regression was performed to control for the effects of age, employment status, hospice discipline, and years of healthcare experience on Burnout.

Hypothesis 3: HCP in this study will have higher self-care scores than published norms.

These hypotheses will be tested by comparing MSCS scores to published norms.¹⁸

Hypothesis 4a: HCP in this study will have higher CS scores than published norms.

Hypothesis 4b: HCP in this study will have lower Burnout and STS scores than published norms.

These hypotheses will be tested by comparing the ProQOL variables to published norms.¹⁵

Results

Participants

Invitations were sent to 995 HCP serving in California. Three hundred and twenty-four HCP participated in the study after elimination of 47 incomplete surveys (37% response rate). Table 1 shows selected demographics. The mean age of females (79.6%) was 50.1 years (SD = 11.73). Males (20.4%) had a mean age of 50.6 years (SD = 11.0). Most respondents were employed full time (78.4%) or part time (14.8%) followed by per diem (4.3%) and on-leave (2.5%). Respondents were primarily from two states California and Florida.

Participants were employed primarily in 1 of 10 hospice disciplines. These were registered nurse (n = 68), chaplain (n = 60), social worker (n = 48), home health aide (n = 40), licensed vocational nurse (n = 28), administrative (n = 20), management (n = 18), nurse practitioner (n = 14), physician (n = 8), music therapist (n = 4), and "other" (n = 18).

Almost half had a master's degree (49.4%), 21.6% had a bachelor's degree, 14.8% had some college, and 4.9% had a high school diploma. The mean years of healthcare experience was 7.61 (SD = 7.46, ranging from 1 to 40 years).

Table 1. Hospice Participant Demographics (N = 324).

Measure	n (%)
Gender	
Female (M _{age} = 50.1)	258 (79.6)
Male (M _{age} = 50.6)	66 (20.4)
Other	0 (0)
Employment status	
Full-time	254 (78.4)
Part-time	48 (14.8)
Per diem	14 (4.3)
On leave	8 (2.5)
Hospice discipline	
Registered nurse	68 (21.0)
Chaplain	60 (18.5)
Social worker	48 (14.8)
Home health aide	40 (12.3)
Licensed vocational nurse	28 (8.6)
Administrative	20 (6.2)
Management	16 (4.9)
Nurse practitioner	14 (4.3)
Physician	8 (2.5)
Music therapist	4 (1.2)
Other	18 (5.6)
Education	
Graduate degree	160 (49.4)
Bachelor degree	70 (21.6)
College, no degree	30 (9.3)
High school	48 (14.8)

Professional Quality of Life and Mindful Self-Care

Table 2 shows correlations, mean, standard deviation, and range of all study variables. This results section will test each of the hypotheses using the appropriate statistical tools.

Hypothesis 1: Hospice professionals who engaged in multiple and frequent self-care strategies would experience higher ProQOL. The following subhypotheses provide the opportunity to test each component independently.

Hypothesis 1a: CS and MSCS will be positively correlated.

Hypothesis 1b: STS and MSCS will be negatively correlated.

Hypothesis 1c: Burnout and MSCS will be negatively correlated.

Figure 2 shows Pearson correlations between variables and proposes a model. Mindful self-care scale was strongly correlated with CS ($r = 0.497, p < .01$) and negatively correlated with both STS ($r = -0.276, p < .05$) and Burnout ($r = -0.726, p < .01$). The null hypothesis of all 3 null subhypotheses was rejected.

The ProQOL variables were interrelated also. There was a negative correlation between CS and Burnout ($r = -0.741, p < .01$) and between CS and STS ($r = -0.400, p < .01$) and a positive correlation between STS and Burnout ($r = 0.456, p < .01$). The results also support the underlying assumptions

Table 2. Pearson Correlations Among Professional Quality of Life, Mindful Self-Care Scale, and Subscales (N = 324).

Measures	Mindful Self-Care and Subscales							Professional Quality of Life		
	MSCS	PC	SR	MS	SC	MR	SS	CS	STS	BO
MSCS	1	-	-	-	-	-	-	-	-	-
PC	0.637 ^a	1	-	-	-	-	-	-	-	-
SR	0.731 ^a	0.350 ^a	1	-	-	-	-	-	-	-
MS	0.772 ^a	0.350 ^a	0.504 ^a	1	-	-	-	-	-	-
SC	0.796 ^a	0.305 ^a	0.559 ^a	0.694 ^a	1	-	-	-	-	-
MR	0.778 ^a	0.342 ^a	0.466 ^a	0.544 ^a	0.613 ^a	1	-	-	-	-
SS	0.687 ^a	0.317 ^a	0.490 ^a	0.555 ^a	0.435 ^a	0.518 ^a	1	-	-	-
CS	0.497 ^a	0.255	0.318 ^b	0.506 ^a	0.639 ^a	0.347 ^a	0.567 ^a	1	-	-
STS	-0.276 ^b	-0.121	-0.063	-0.213	-0.229	-0.285 ^b	-0.407 ^a	-0.400 ^a	1	-
BO	-0.726 ^a	-0.435 ^a	-0.503 ^a	-0.642 ^a	-0.673 ^a	-0.531 ^a	-0.650 ^a	-0.741 ^a	0.456 ^a	1
Practiced self-care (days/wk)	-	3.14	4.45	3.90	4.10	4.90	3.95	-	-	-
M	113.75	22.86	19.77	14.78	22.08	18.81	14.85	41.07	20.74	20.82
SD	18.46	5.32	3.57	3.28	4.54	4.55	2.94	5.91	5.49	6.31
Range possible	33-165	8-40	5-25	4-20	6-30	6-30	4-20	10-50	10-50	10-50
Range actual	58-154	11-35	8-25	4-20	6-30	7-29	7-20	17-50	10-46	10-48
Comparative scoring (mean)										
Bottom quartile	85.21 ¹⁸							22 ¹⁵	22 ¹⁵	22 ¹⁵
Midpoint	98.5							32	32	32
Top quartile	111.8							42	42	42

Abbreviations: BO, burnout; CS, compassion satisfaction; MR, mindful relaxation; MS, mindful self-awareness; MSCS, Mindful Self-Care Scale; PC, physical care; SC, self-compassion and purpose; SR, supportive relationships; SS, supportive structure; STS, secondary traumatic stress.

^aCorrelation is significant at the .01 level (2-tailed).

^bCorrelation is significant at the .05 level (2-tailed).

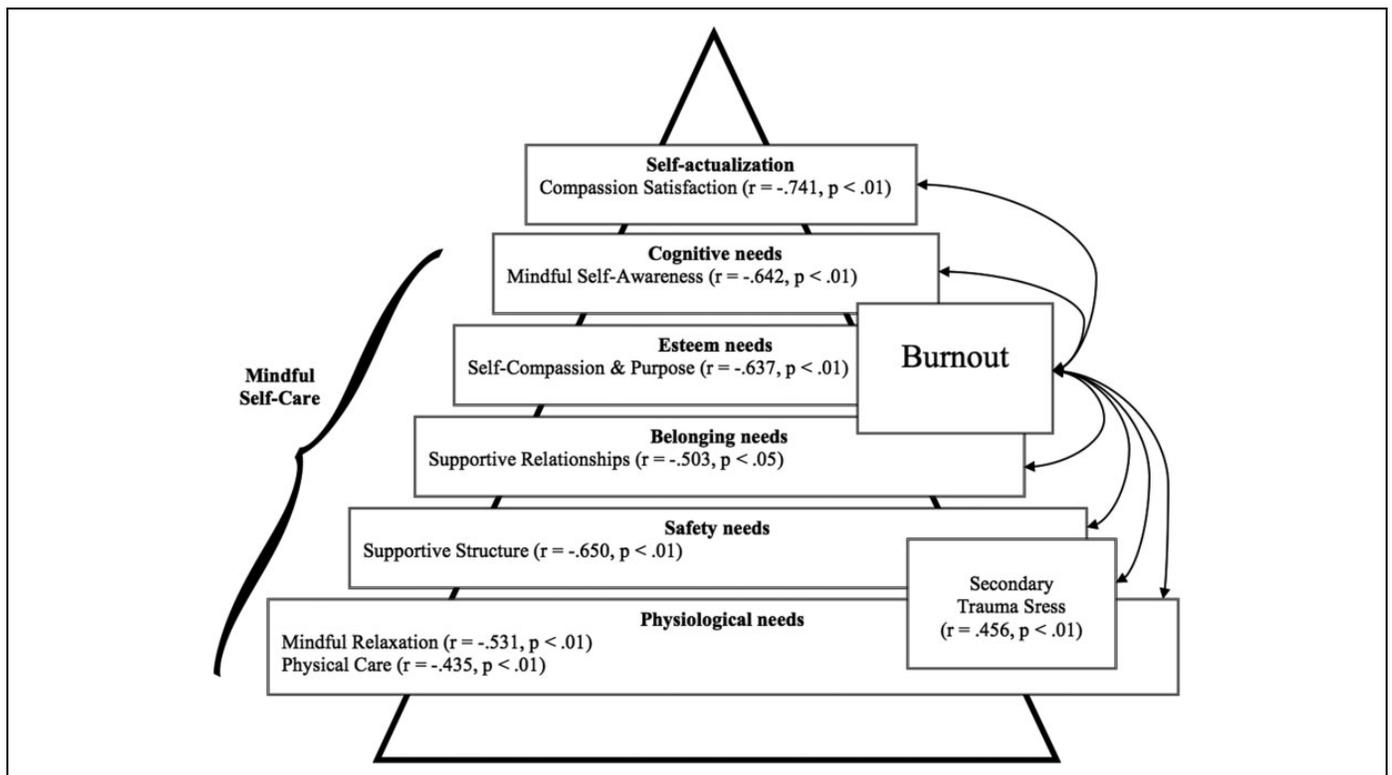


Figure 2. Pearson correlations to the outcome burnout and conceptual model based on adaptation of Maslow's hierarchy of needs.

Table 3. Hierarchical Multiple Regression of Predictors of Burnout.

Model ^a	R	R ²	R ² Adjusted	Standard Error	R ² Change	F Change	df1	df2	Sig.
1	0.336 ^b	0.113	0.026	6.228	0.113	1.298	5	318	0.279
2	0.873 ^c	0.761	0.722	3.329	0.649	43.499	3	315	0.000
3	0.859 ^d	0.737	0.722	3.329	-0.018	49.525	3	315	0.000

^aDependent variable: burnout.

^bPredictors: age, education, hospice discipline, employment status, and years in healthcare.

^cPredictors: age, education, hospice discipline, employment status and years in healthcare, compassion satisfaction, secondary traumatic stress, and mindful self-care.

^dPredictors: compassion satisfaction, secondary traumatic stress and mindful self-care.

Table 4. Predicting Burnout From Compassion Satisfaction, Secondary Traumatic Stress, and Mindful Self-Care.

Model ^a		b	CI _{95%} for b		β	t	Sig
			Lower	Upper			
3	Compassion satisfaction	-0.484	-0.667	-0.300	-0.453	-5.290	0.000
	Secondary traumatic stress	0.170	-0.008	0.348	0.148	1.915	0.049
	Mindful self-care	-0.141	-0.192	-0.091	-0.460	-5.642	0.000

^aPredictors: compassion satisfaction, secondary traumatic stress, and mindful self-care.

postulated in the literature about how the 3 ProQOL constructs are interrelated. Namely, there is a strong, negative association between CS and both STS and Burnout. There is a strong, positive association between Burnout and STS. Correlations among all ProQOL and MSCS variables were calculated as shown in Table 2.

A three-step hierarchical multiple regression was conducted to test the proposed model in Figure 2 and control for the effect of demographic and professional variables (Table 3). Since no prior hypotheses had been made to determine the order of entry of the predictor variables, a direct method was used for the multiple linear regression analyses. All predictors shared moderate to strong relationships (except demographic and professional variables) with the outcome. Inspection of P-P plots and a scatterplot of the standardized residual values indicated that the assumptions were met. Examination of bivariate scatter plots did not reveal any extreme data values.

Model 1 (Table 3) included the participant's variables: age, years of healthcare experience, education, hospice discipline, and employment status. Model 2 included all variables in model 1 plus the variables of the proposed model: CS, STS, and MSCS. The dependent variable was Burnout.

Results of model 2 indicated that the combined effect of age, years of healthcare experience, education, hospice discipline, employment status, CS, STS, and MSCS explained 76.1% of the variance in Burnout, $F(3, 315) = 19.152, p < .001$.

Hypothesis 1d: Age, years of healthcare experience, education, hospice discipline, and employment status will predict burnout.

The above participant variables explained only 11.3% of the variance in Burnout, $F(5, 318) = 1.298, p = .279$.

However, the association was not significant: None of the participant variables were predictors of Burnout. The null hypothesis was accepted.

Model 3 was run to refine the model and include only the variables that were statistically significant. Results of Model 3 indicated that the combined effect of CS, STS, and MSCS explained 73.7% of the variance in Burnout, $F(3, 315) = 49.525, p < .01$. The strongest predictors of Burnout were CS ($\beta = -0.468$) and MSCS ($\beta = -0.412$; Table 4).

Data analysis also revealed an overall pattern of self-care being practiced by study participants; the below results show the preferred self-care practices of study participants.

Self-Care Practice Frequency

Hypothesis 1e: Multiple self-care strategies will be practiced by HCP at least 3 days/wk.

Among the self-care categories (Table 2), the practices were categorized as MR (4.90 days/wk), and SR (4.45 days/wk) were the most frequently practiced. Self-compassion and purpose (4.10 days/wk), SS (3.95 days/wk), and mindful self-awareness (MS; 3.90 days/wk) were practiced with nearly equal frequency. Physical care (3.14 days/wk) had the lowest frequency.

To further investigate the central hypothesis, the correlations between each MSCS subscale and each of Burnout, STS, and CS were tested (Table 2). Burnout was strongly and negatively correlated ($p < .01$) with each self-care category (in order of strength): self-compassion and purpose ($r = -0.673$), SS ($r = -0.650$), MS ($r = -0.642$), MR ($r = -0.531$), SR ($r = -0.503$), and PC ($r = -0.435$). For STS, only SS ($r = -0.407, p < .01$) and MR ($r = -0.285, p < .05$) were significantly correlated. Compassion satisfaction was

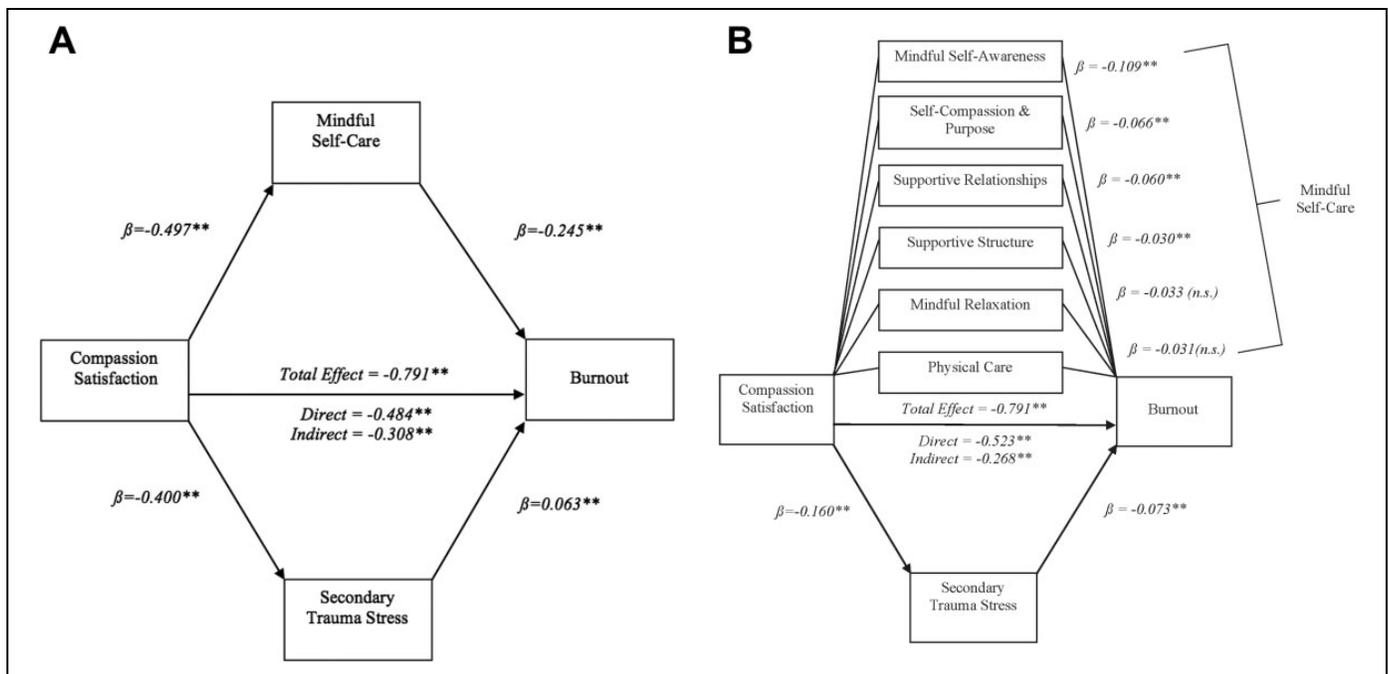


Figure 3. A, Finalized study model with standardized β coefficients. B, Study model with standardized β coefficients and mindful subscales breakout. Correlation is significant at the .01 level (2-tailed).

moderately to strongly correlated with all MSCS subscales except PC (Table 2).

Test of the Mediating Effects of MSCS and STS

Hypothesis 2a: MSCS will mediate a relationship between CS and Burnout.

Hypothesis 2b: STS will mediate a relationship between CS and Burnout.

To test these hypotheses, four variables—CS, STS, Burnout, and MSCS were analyzed using the PROCESS tool.³¹ Based on a theoretical model (Figure 2), it was proposed that CS (X) indirectly affects the burnout risk (Y) through the mediating causes of MSCS (M1) and STS (M2).

In step 1 of the mediation of model 3, the regression of Burnout on CS, ignoring the mediators, was significant, $b = -0.791$, $p < .01$. Step 2 showed that the regression of Burnout on, the mediator, MSCS was also significant, $b = -0.141$, $p < .01$. Step 3 showed that the regression of Burnout on, the mediator, STS was significant, $b = 0.170$, $p = .049$. Step 4 showed that the regression of CS on, the mediator, MSCS was significant, $b = 1.729$, $p < .01$.

Step 5 of the analyses revealed that, controlling for the mediators MSCS and STS, CS was still a significant predictor of Burnout, $b = -0.520$, $p < .01$. A Sobel test was conducted and MSCS mediation was found in the model ($z = -3.36$, $p < .001$) with a moderate effect ($\kappa = -0.25$). A Sobel test for STS was also conducted and mediation was found in the model ($z = -5.91$, $p = .047$) with a small effect ($\kappa = -0.06$).

Figure 3A shows the model 3a with the standardized β coefficients. The direct effect of CS on Burnout was strong ($\beta = -0.484$, $p < .01$). The direct effect of MSCS on Burnout was also strong ($\beta = -0.412$, $p < .01$). The total indirect effects ($\beta = -0.308$) mediated by MSCS were moderate ($\beta = -0.245$, $p < .01$) and by STS were small ($\beta = 0.063$, $p = .048$). Hence, the relationship between CS and Burnout is mediated by MSCS and STS since total effects ($\beta = -0.791$, $p < .01$) are greater than the direct effects ($\beta = -0.484$, $p < .01$). The null hypothesis was rejected; both MSCS and STS mediated a relationship between CS and Burnout.

To further explore which self-care practices were the strongest mediators between CS and Burnout. The PROCESS tool was run with 6 self-care mediators and STS.³¹ Figure 3B shows the model and a breakout of the MSCS practices. The direct effect of CS on Burnout is strong ($\beta = -0.523$, $p < .01$). The indirect effect of MSCS practices on Burnout were all significant ($p < 0.01$) except Physical Care ($\beta = -0.031$, n.s.) and Mindful Relaxation ($\beta = -0.033$, n.s.). In order of strength, Mindful Self-Awareness ($\beta = -0.109$); Self-Compassion & Purpose ($\beta = -0.066$); Supportive Relationships ($\beta = -0.060$); and Supportive Structure ($\beta = -0.030$) mediated the relationship between CS and Burnout. Since the total indirect effect of the model 3A ($\beta = -0.308$) in Figure 3A was larger than the total indirect effect of the model 3b with the MSCS breakout ($\beta = -0.268$), model 3a was selected as the final study model.

Hypothesis 3: HCP in this study will have higher self-care scores than published norms.

HCP in this study had mean MSCS above the 75th percentile of published norms scores.¹⁸

Hypothesis 4a: HCP in this study will have higher CS scores than published norms.

Hypothesis 4b: HCP in this study will have lower STS and Burnout scores than published norms.

Hospice care professionals in this study had a high mean CS score compared to published norms.¹⁵ Compassion satisfaction was high for 50.9% and moderate for 49.1%. None scored in the low range for CS and none were high risk for STS and Burnout. Secondary traumatic stress and Burnout mean scores were low compared to published norms: 59.3% had low STS, and 40.7% had moderate STS. Burnout groupings were similar with low risk comprising 64.3% and moderate risk comprising 35.7%. Moderate scores should still potential warrant concern according to Stamm.¹⁵

Discussion

Increased compassion satisfaction was associated with reduced burnout, secondary traumatic stress, and increased mindful self-care. The difference in the correlation strength between compassion satisfaction and both secondary traumatic stress and burnout is congruent with the recent existing ProQOL literature.^{13,32,33}

Mindful self-care was found to mediate the relationship between compassion satisfaction and burnout. Whereas, secondary traumatic stress just passed the significant test for mediation and the mediation effect was smaller. This finding supports the theoretical premise, based on Maslow's model, is that deficiency motivations must be met before higher motivations manifest and that compassion satisfaction is an expression of self-actualization through hospice care. When HCPs have their needs met as conceptualized in the Maslow hierarchy, they can buffer the impact of compassion fatigue (secondary traumatic stress and burnout). This expands knowledge gained from prior research showing a positive correlation between professional well-being and work meaningfulness.^{34,35}

Burnout had stronger associations to both compassion satisfaction and mindful self-care, than secondary traumatic stress. This is most likely attributed to the conceptual differences between the two constructs. Secondary traumatic stress measures the impact of work-related exposure to stressful events and includes such concerns as intrusive images, decreased empathetic attunement, sleep difficulties, and avoidance behaviors.¹⁵

The negative relationship between mindful self-care and secondary traumatic stress was significant but with a small effect. The only self-care categories that were statistically significant protective factors in reducing secondary traumatic stress were supportive structure and mindful relaxation. This fits with the finding that secondary trauma is sustained by a helping professional's fearful thinking processes and mindful relaxation countering the traumatic effect of these thoughts.¹⁵ This suggests that hospice programs can reduce secondary traumatic stress with manageable work hours, relaxation time, and staff support for psychosocial distress.

The negative relationship between mindful self-care and burnout was significant with a large effect. These results show that burnout is more easily reduced by strategic self-care practices than by secondary traumatic stress. All self-care categories were strong protective factors in the reduction of burnout, especially self-compassion and purpose, supportive structure, and mindful relaxation. Hospice providers wishing to reduce the risk of burnout among their staff should focus on education and staff interventions that address these areas.

Self-care was being frequently practiced by study participants. These findings support the theoretical framework of mindful self-care as a set of practices that support positive embodiment that makes compassion care sustainable. The four most frequently practiced self-care aspects also had the strongest correlations with burnout reduction: supportive structure, self-compassion and purpose, mindful self-awareness; and supportive relationships. One explanation for this outcome is that opportunities to practice some self-care strategies (mindful relaxation, self-compassion and purpose, supportive relationships) are more frequent and organic than other strategies (exercise and mind-body practice). Conversely, opportunities for physical care including mindfulness meditation or body practice are less frequently practiced because they require more time and discipline.

The negative correlation of compassion fatigue to compassion satisfaction highlights the importance of finding ways to assist staff both to cope with the unique stressors of their work and to recognize and connect to their work's positive and affirming aspects. Prior research has suggested holistic self-care activities such as physical exercise, meditation, self-reflection, play, and rest are imperative both for mitigating compassion fatigue^{12,13,36} and for increasing compassion satisfaction.^{12,13,28,37} This study confirmed these results while explicitly demonstrating which types of self-care practices provide the most protective benefit from burnout. Self-compassion and purpose, mindful self-awareness, and supportive relationships were the strongest self-care mediators between compassion satisfaction and burnout.

Hospice care professional in this study had higher self-care scores than published norms. This is most likely due to the hospice providing continuing education, supervision, and regular opportunities to practice self-awareness, self-care, and professional boundaries. They also had higher compassion satisfaction scores than published norms. One explanation for this difference is that HCP are able to regularly practice compassion and kindness with patients and families as they face the tender transitions at the end of life.

There are other implications for healthcare organizations. The use of mindful personal self-care activities to diminish secondary traumatic stress and burnout to cultivate compassion satisfaction may be complemented by various workplace care interventions. These may include routine and public recognition of particularly helpful and successful interventions with patients and families. The value of supportive structure and supportive relationships in the hospice setting is clear.

Supportive relationships such as buddies, mentors, and supervision help staff sustain their compassionate care. Participants who feel most supported in their hospice work were most likely to have higher ProQOL. Another implication is that since mindful relaxation and self-awareness were also highly correlated with higher ProQOL, healthcare organizations should be equipping their staff with education and opportunities to increase their mindfulness and self-awareness. Future research should focus on specific self-care interventions in hospice settings for reducing burnout among at-risk staff by using a pretest posttest design. A self-care study directed at physicians would be helpful to understand the unique self-care plans necessary for physicians. The aim would be to encourage increased physician assessment of self-care and well-being, which was low as evidenced by the low response rate. Self-care strategies that address the fearful thinking processes associated with secondary traumatic stress such as staff counseling, team debriefing and relaxation exercises should also be explored further.

Limitations

As with any study, this study had several limitations, including inability to account for possible confounding variables such as degree of patient and family demands, other personal factors, or organizational changes that could influence responses to the assessment. Social desirability may have influenced the self-assessment measures. Staff who are not practicing effective self-care might be reluctant to take the survey. These factors may belie selection bias that limits the validity and generalizability of findings across practice settings. Also, the cross-sectional design measured participants' well-being at a single moment in time. The low response rate of physicians (17%) may be attributed to physicians being too busy to pause and assess their self-care since physicians were invited multiple times to participate. However, the number of physicians who responded ($n = 8$, 2.5%) is congruent with the percentage of physicians in VITAS' staff demographics (2.0%).

Conclusion

In summary, hospice staff who felt good about helping their clients tended to take care of themselves better and have lower risk for burnout and secondary traumatic stress. This finding supports the central hypothesis that HCP who engaged in multiple and frequent self-care strategies would experience higher ProQOL. Hospice organizations have begun to recognize that the pursuit of wellness among their staff is a win for both patients and staff. Staff wellness should be encouraged intentionally and holistically. Productivity increases and attrition decreases since healthy staff are productive staff who enjoy their work. In the hospice professional's journey toward wellness, mindful self-care is imperative.

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