

## SUBJECTIVE VITALITY, COMPASSION FATIGUE AND EMPATHY IN HEALTH CARE PROFESSIONALS

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### ABSTRACT

The study aimed to examine the relationship among subjective vitality, compassion fatigue, and empathy in health care professionals. A correlational design was employed on a sample of (N=305) healthcare professionals. The sample was collected from government institutes, clinics, and private and teaching hospitals through convenient sampling. The variables were evaluated using assessment measures such as the BBC Wellbeing Scale for Subjective Vitality, the Professional Quality of Life Scale for Compassion Fatigue, and the Perth Empathy Scale for Empathy. The study comprised of a sample of health care professionals (N=305; M age=27; SD=5.82; 52.1% women, 47.9% men). The correlational analysis revealed a significant positive relationship between compassion fatigue, and empathy and a negative relationship with burnout. An increase in subjective vitality led to increased relationships, compassion satisfaction, and positive affective empathy, but on the other hand, a decrease in burnout. The regression analysis demonstrated that subjective vitality could not predict empathy independently, but it could be predicted when compassion fatigue was present.

**Keywords:** Subjective Vitality, Compassion Fatigue, Empathy and Health Care Professionals.

### INTRODUCTION

Subjective vitality was a person's perception of being alive, energetic, and involved in life (Gautam, 2024). Living a vibrant and active life was crucial to being fully functioning and psychologically sound (Ryan & Deci, 2001). It was a positive perception of being alive, active, and vibrant which was known as subjective vitality. Comprehending the complex relationship between subjective vitality, compassion fatigue, and Empathy was essential to the complex human experience. According to Goetz et al. (2010) compassion was the emotion that rose from seeing another person's suffering and spurred the desire to assist them. The research represented the influence on caretakers, especially in the field that required a high degree of Empathy that lead to emotional exhaustion and a significantly reduced ability to empathize with individuals. The foundation that connected an individual to another was Empathy, which was generalized as the capacity to interpret and experience another's feelings. The ability and capacity to understand and be able to share the sentiments of others was called Empathy, which was also a motivator of pro-social behaviour (Decety et al., 2016). The

possible connections between these dimensions provided an insight into how subjective vitality or subjective wellbeing, compassion fatigue, and Empathy interacted with each other while influencing one another in different settings. This was especially in the context of healthcare or caregiving along with interpersonal interactions.

Subjective vitality refers to the feeling of being enlivened, eager, and present in daily situations (Standage et al., 2006). It encompasses a comprehensive assessment of an individual's general wellbeing, vigor, passion, and enthusiasm for life (Ryan & Deci, 2017). It goes beyond the mere presence of energy and focuses on the qualitative perception of vitality and the feeling of being alive and energetic in dealing with everyday tasks (Gagné et al., 2008).

Subjective vitality is closely tied to an individual's perception of liveliness, vigor, and energy, and it fluctuates based on their environment, circumstances, and engagement with socio-environmental activities (Reis et al., 2000; Martela & Ryan, 2016). It shapes an individual's overall sense of wellbeing and

attitude towards life's challenges and opportunities.

There are different types of subjective vitality. Transient subjective vitality refers to temporary changes in energy levels due to recent experiences or behaviors, while stable subjective vitality refers to an individual's overall threshold of energy and vitality (Standage et al., 2006; Haerens et al., 2015). Task-related subjective vitality is influenced by variations specifically linked to an individual's tasks or objectives, and socially influenced subjective vitality is impacted by relationships and social interactions (Gagné et al., 2008; Standage & Gillison, 2019).

Several factors influence subjective vitality. Mental health conditions, such as stress and stressful life events, can decrease subjective vitality, general wellbeing, and life satisfaction (Liu et al., 2022). Sleep quality plays a crucial role, as low-quality sleep can negatively impact mood and cognitive function (Joo et al., 2021). Physical activity is important for maintaining subjective vitality, as a decrease in physical activity can lead to immobility and lower vitality (Park et al., 2019). Stress and overwork also have a negative impact on subjective vitality, leading to cognitive deterioration (Blackwell et al., 2019).

Compassion fatigue is a term used to describe the accumulated weariness and anguish experienced by caregivers and professionals who provide care to traumatized or suffering individuals (Figley, 1995). It is characterized by emotional numbness, decreased empathy, and a diminished capacity for nurturing (Figley, 2002). The continuous exposure to pain and stress leads to exhaustion and weariness, both physically and emotionally (Adams et al., 2006). Compassion fatigue goes beyond the acute emotional toll and has a lasting impact on caregivers, including reduced empathy and compassion (Sprang et al., 2007).

There are several types of compassion fatigue. Emotional exhaustion is characterized by extreme emotional tiredness and difficulty in handling new emotional demands (Huggard & Moore, 2011). Secondary traumatic stress, also known as vicarious trauma, is similar to the symptoms experienced by those directly exposed to trauma (Figley, 2002). Burnout, although distinct from compassion fatigue, is characterized by diminished personal accomplishment,

depersonalization, and emotional depletion (Maslach et al., 2001). Diminished empathy is a major symptom of compassion fatigue, resulting in a reduced capacity to emotionally relate to others' suffering (Hudnall & Stamm, 2009). Physical symptoms, such as headaches and chronic fatigue, are caused by prolonged stress (Mathieu, 2007). Cognitive disturbances, such as intrusive thoughts and memory issues, are also common (Sprang et al., 2007).

Several factors contribute to the development of compassion fatigue. Continuous exposure to trauma and upsetting circumstances increases the risk (Figley, 1995). Work overload, stress, and unreasonable job demands also play a role (Sabo, 2011). A lack of support, resources, and staffing levels further contribute to weariness (Huggard & Moore, 2011). Personal trauma history increases vulnerability to compassion fatigue (Sprang et al., 2007). Excessive empathetic engagement and over-identifying with others' pain can also lead to compassion fatigue (Mathieu, 2007). Perceived lack of control over outcomes, inadequate self-care, and moral distress and ethical conundrums are additional factors (Sabo, 2011; Adams et al., 2006).

Empathy, a complex concept, involves the ability to identify, understand, and experience another person's emotions (Decety & Jackson, 2004). It encompasses being aware of and sensitive to the emotions, ideas, and experiences of others (Baron-Cohen & Wheelwright, 2004). Empathy is defined as the ability to understand and share the feelings and thoughts of another person (Hogan, 1969). In the service industry, empathizing with clients who feel terrible or happy has different long-term effects compared to the short term. Over time, the empathetic effects become less intense (Hansen et al., 2018).

To act compassionately, individuals need to recognize and empathize with the emotions of others and understand their goals and objectives (Zaki & Ochsner, 2012). Empathy, as defined by Singer & Lamm (2009), involves understanding and supporting another person's emotional state while considering their environmental, situational, and emotional conditions. Empathy involves comprehending and empathizing with the feelings of others, encompassing both cognitive and emotional components (Decety &

Meyer, 2008). It is the ability to understand and share the feelings of others, leading to emotional connection and compassionate behavior (Decety & Moriguchi, 2007).

Watson (2009) explains that empathy involves recognizing and reacting to the emotional conditions of others while imagining oneself in their situation. It requires a deep understanding and appropriate emotional reaction. Both cognitive understanding and emotional attachment are essential for comprehending, connecting with, and responding to the emotional experiences of others (Keysers & Gazzola, 2006).

Empathy is the understanding and feeling of the emotions of others by combining an individual's cognitive and emotional abilities (Decety & Cowell, 2014). It involves comprehending the emotional experiences of others and reacting with suitable feelings or behaviors (Preston & de Waal, 2002). Generally, empathy is a multifaceted phenomenon that encompasses cognitive comprehension, emotional resonance, compassionate response, and appropriate reactions to others' emotional states (Preston & De Waal, 2002).

There are different types of empathy. Emotional empathy is the ability to perceive another individual's feelings and share their emotional condition (Davis, 1983; Decety & Meyer, 2008). Affective empathy is the emotional response triggered in an individual by the emotional condition of another person (Decety & Jackson, 2004; Eisenberg & Eggum, 2009). Somatic empathy is the ability to physically feel or behave in a manner similar to another individual (Keysers & Gazzola, 2006). Compassionate empathy is the emotional concern and desire to lessen the suffering of others (Decety & Yoder, 2016; Decety & Meyer, 2008). Aesthetic empathy is the emotional reaction to or admiration of works of literature, music, or art that stir up emotions and connections (Preston & de Waal, 2002). Spiritual empathy involves understanding and relatedness to the spiritual or existential experiences of others (Decety & Jackson, 2004). Cognitive empathy is the capacity to understand another individual's perspective or emotions on an intellectual level (Decety & Jackson, 2004; Decety & Meyer, 2008).

Various factors contribute to empathy. Neurobiological factors, such as specific brain regions and neurological elements like the mirror neuron system, are important for empathy (Decety & Lamm, 2006). Genetics also play a role, as specific genetic variants associated with oxytocin and serotonin receptors may impact a person's propensity for empathy (Warrier et al., 2018; Rodrigues et al., 2009). The developmental environment, including childhood and early social experiences, has a significant impact on empathy (Eisenberg et al., 2015). Cultural and societal factors, such as exposure to different viewpoints and cultural values, influence empathy (Trommsdorff & Rothbaum, 2008). Education and socialization, including formal education and social contacts, aid in the development of empathy (Decety & Svetlova, 2012). Empathy training programs, mindfulness exercises, and therapy interventions can also enhance a person's capacity for empathy (Klimecki et al., 2013).

### **Theoretical Framework**

Empathy is a crucial aspect of human communication, encompassing appropriate responses to others' emotions, cognitive understanding, emotional resonance, and compassionate replies (Decety & Jackson, 2006). The Empathic Communication Model provides a framework for understanding empathy as a dynamic process influenced by various factors. Compassionate communication involves sharing emotional experiences, recognizing and understanding others' feelings, and responding appropriately (Stein & Parbury, 2009).

Bandura's (1977) social learning theory suggests that individuals acquire behaviors by observing and imitating others. Albert Bandura found that children learn anger, violence, and other social behaviors by observing and imitating the actions of others. Conversely, kindness and compassion can also be learned through imitation. Social learning theory highlights the importance of social relationships and the need to demonstrate empathetic communication to promote empathy development (Bandura, 1977).

Research by Nezlek and Gable (2001) suggests that a higher likelihood of engaging in helpful behavior is associated with increased levels of subjective vitality. Prosocial behavior

refers to voluntary actions aimed at benefiting others (Eisenberg, 1986). This category includes activities such as assisting, sharing, and comforting, which are carried out for various reasons (Eisenberg et al., 2010). Understanding the relationship between subjective vitality and empathy is crucial in comprehending the motivating factors that lead to empathetic responses. Compassion fatigue, characterized by reduced empathic reactivity and emotional exhaustion, is often observed in caregiving professions.

Continuous exposure to the suffering of others can lead to compassion fatigue. Sinclair et al. (2016) found that individuals with lower subjective vitality are more susceptible to compassion fatigue due to decreased resilience and personal resources. Limited empirical studies have explored the correlation between empathy, compassion fatigue, and subjective vitality. Slocum-Gori et al. (2013) highlighted the importance of simultaneously examining both constructs. Their findings suggest that subjective vitality acts as a protective factor against compassion fatigue and influences the empathetic abilities of caregivers.

In the medical field, empathetic communication is crucial for physicians to empathize with and understand patients' emotional states. Empathy enhances a clinician's sense of fulfillment and improves their subjective vitality. However, compassion fatigue can lead to a decline in subjective vitality and the quality of these interactions. Empathy helps healthcare professionals maintain resilience and

### **Rationale**

The proposition of this study is that health care professionals, especially those working in stressful environments, may experience low subjective vitality and compassion fatigue and empathy. The antithesis of compassion fatigue is subjective vitality, which is characterized by a sustained energy, as opposed to compassion fatigue, which results in the depletion of compassionate energy (Martin-Cuellar et al., 2019). Compassion fatigue which leads to burnout and secondary traumatic stress.

Investigating the intricate relationships between empathy and burnout assists healthcare professionals and institutions in easing the likelihood of experiencing burnout (Delgado et al., 2023). Healthcare professionals experiencing burnout are the primary cause of lack of empathy, leading to inefficient treatment for patients and clients. According to Moudatsou et al. (2020) health care professionals who possess high levels of empathy are more effective and efficient in fulfilling their responsibility to induce therapeutic change. The study focused on all fields of health care professionals fulfilling the limitations of the previous researches, providing a more generalized outlook.

### **Hypotheses**

Following are the hypotheses of the present study:

- There was likely to exist a relationship among Subjective Vitality, Compassion Fatigue and Empathy in Health Care Professionals.
- Subjective Vitality, Compassion Fatigue was likely to predict Empathy in Health Care Professionals.
- There was likely to be a moderating role of Compassion Fatigue between Subjective Vitality and Empathy in Health Care Professionals.

### **Method Sample**

The study comprised of a sample of health care professionals (N=305), which provided a strong dataset for correlational analysis. The sample size enhanced the understanding of the correlation between the variables in clinical settings that ensured that the results could be generalized into a broader population. The participants of this study were selected using convenience sampling where the participants were selected on them being readily available. The participants of this study were selected using convenience sampling where the participants were selected on them being readily available.

**Table 1**

<b>Descriptive statistics of Demographic Variable</b>		
<b>Characteristics</b>	<b>f (%)</b>	<b>M(SD)</b>
Age	305	27(5.82)
Gender		1.52(0.50)
Male	146(47.9)	
Female	159(52.1)	
Shift		1.42(0.76)
Morning	219(71.8)	
Evening	43(14.1)	
Both	43(41)	
Marital Status		1.31(0.49)
Single	215(70.5)	
Married	85(27.6)	
Divorced / Separated/ Widowed	5(1.6)	
Calls Per Week		3.92(1.56)
1	16(5.2)	
2	69(22.6)	
3	37(12.1)	
4	25(8.2)	
5	119(39)	
6	36(11.8)	
7	3(1)	
Sector		1.79(0.48)
Government	70(23)	
Private	230(75.4)	
Both	5(1.6)	
No of Jobs		1.15(0.38)
1	260(85.2)	
2	44(14.4)	
3	1(0.3)	

Note: M = Mean, SD = Standard Deviation, f = Frequency and % = percentage.



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**Measures**

**Informed Consent**

The informed consent form contained a description of the research's aim, objectives, participant rights, and their freedom to discontinue participation at any time. It provided contact information for further information. It explained the purpose of data collection and ensured answer confidentiality. Participants were promised their privacy and rights during the research effort by signing the permission form.

**Demographic Sheet Form**

The demographic information sheet was a form, that Required the participants information in terms of age, gender, ethnicity, education level, and occupation. It guaranteed privacy, providing clear instructions. Individuals were free to choose not to answer any particular question. The following details were asked on the sheet, Age, Gender, Shift, Marital Status, Department, Working Hours, Calls per Week, Monthly Income, Sector among which Private and Government were an option and No of Jobs.

**The BBC Wellbeing Scale (Kinderman et al., 2011)**

The BBC Wellbeing Scale, a popular self-report questionnaire created by Kinderman, Schwannauer, Pontin, and Tai in 2011. Its purpose was to evaluate individual's subjective experiences in the areas of life satisfaction, positive affect, quality of life, sense of meaning, and goal pursuit. The scale, which consists of 24 items total, is divided into three subscales: the Relationship Scale, the Psychological Wellbeing, and the Physical Health Wellbeing. The 24-item scale as a whole showed strong internal consistency ( $\alpha = .935$ ) in a validation analysis, suggesting a high degree of dependability. Furthermore, the scale exhibited noteworthy associations with crucial demographic factors and contemporaneous validity metrics, indicating that it proficiently encompasses crucial facets of subjective wellbeing. The scale was readily available and was free to use. It has become a crucial tool for professionals and scholars to assess and improve the wellbeing of diverse groups.

**Professional Quality of Life Scale- 5 (ProQOL) (Stamm, 2009)**

The scale consisted of 30 items and three subscales. It assessed the professional quality of life of individuals in terms of burnout, secondary traumatic stress and compassion satisfaction of those individuals who worked with the trauma victims. The measure had shown high reliability that was the internal consistency values that had surpassed 0.80 for the subscales. It had also shown a very strong construct validity, convergent validity, and discriminant validity. Dr. Beth Hudnall Stamm, a certified psychologist and Certified Employee Assistance Professional, created the ProQOL in the early 1990s. Participants evaluated each item by using a likert scale to get understanding of their degrees of compassion satisfaction, burnout, and secondary traumatic stress (Stamm, 2009).

**The Perth Empathy Scale (Brett, 2022)**

The Perth Empathy Scale (PES), a 20-item self-report questionnaire created by Jack Brett and colleagues in 2022 was used to assess cognitive and emotional aspects of Empathy. The Cronbach's Alpha for the scale was  $\alpha = 0.88$ . It had good validity and it yielded multiple subscale scores, including Negative-Cognitive Empathy (NCE), Positive-Cognitive Empathy (PCE), Negative-Affective Empathy (NAE), and Positive-Affective Empathy (PAE). The scale also offered composite scores, such as General-Cognitive Empathy (GCE) and General-Affective Empathy (GAE), which measure recognition and sharing of emotions. The total Empathy score is determined by computing the responses of all 20 items.

**Procedure**

The researcher collected data from 305 healthcare professionals through various methods, including attending a doctoral conference, visiting hospitals, and contacting them online. The study aimed to explore the relationship between factors and variables within the context of healthcare professionals, focusing on their overall well-being and emotional connection with patients. Data was analyzed using SPSS-20, reliability, correlational, hierarchical regression, and moderation analysis. The findings were reported, discussed, and

concluded, providing a comprehensive overview of the study's results.

**Ethical Consideration**

This study's major goal was to uphold ethical standards by giving health care professionals rights and wellbeing priority. Informed consent form was given to the participants, outlining in detail their voluntary participation in the study and their ability to withdraw from it at any time. Anonymity of the individuals was guaranteed to the collect data to ensure that no personal information was revealed. At the end of the study, a post-research debriefing

was held to provide participants with a comprehensive summary of the research, including its goals and produced results. The research's overall credibility and integrity were increased when these ethical considerations were considered.

**Results**

The goal of the current study was to forecast and demonstrate the relationship among healthcare professional's subjective vitality, compassion fatigue, and empathy. The tables below show the results of each analysis.

**Table 2**  
 Descriptive Statistics and Reliability of Study Variables

Study Variables	K	$\alpha$	M	SD	Range
Subjective Vitality	23	.87	77.30	14.29	41 – 107
Relationships	4	.69	13.71	3.53	4 – 20
Compassion Fatigue	30	.76	93.11	13.33	56 – 137
Burnout	10	.52	29.23	5.47	14 – 46
Compassion Satisfaction	10	.80	35.27	7.29	12 – 49
Empathy	20	.82	61.04	12.09	31 – 93
Positive Affective Empathy	5	.50	15.30	3.68	5 – 25

Note: K = no of items in the scale,  $\alpha$  = Reliability, M = Mean, SD = Standard Deviation and Range = the minimum and maximum individuals scored on each item of the scale.

The table provides reliability statistics for three distinct scales: Subjective Vitality (BBC Wellbeing Scale), Compassion Fatigue (Professional Quality of Life Scale-5 - ProQOL), and Empathy (Perth Empathy Scale). The reliability of Subjective Vitality was strong and good ( $\alpha = 0.87$ ), as respondents gave a mean rating with the deviation of 3.41 (SD = 0.29), its subscale relationship shows good reliability ( $\alpha = 0.96$ ) with the 13.71(3.53) mean and standard deviation. Participants on the Compassion Fatigue scale showed a mean and the deviation of 3.088 (SD = 0.410), which indicated good reliability ( $\alpha = 0.87$ ) its two subscales Burnout

showed reliability of ( $\alpha = 0.52$ ) with the mean and deviation of 29.23(5.47), the second subscale compassion satisfaction had the Crohn backs alpha of ( $\alpha = 0.80$ ) showing good internal consistency with the mean of 35.27 with the deviation of 7.29. Finally, the mean empathy score on the Empathy scale was 3.025 (SD = 0.314), it demonstrated high internal consistency ( $\alpha = 0.825$ ) similarly its subscale positive affective empathy showed the internal consistency  $\alpha = 0.50$  with the 15.30(3.68) mean and standard deviation showing normal range of reliability.

**Table 3**  
Correlation Table

Variables	N	M	SD	1	2	3	4	5	6	7
Subjective Vitality	305	77.30	14.29	1	.08	.08	.76**	-.15**	.34**	.13**
Compassion Fatigue	304	93.11	13.33	-	1	.53**	.11*	.70**	.66**	.45**
Empathy	305	61.04	12.09	-	-	1	.11*	.32**	.39**	.78**
Relationships	305	13.71	3.53	-	-	-	1	-.06	.34**	.08
Burnout	304	29.23	5.47	-	-	-	-	1	.14*	.26**
Compassion Satisfaction	304	35.27	7.29	-	-	-	-	-	1	.35**
Positive Affective Empathy	305	15.30	3.68	-	-	-	-	-	-	1

Note: \*p<0.05, \*\*p<0.01, \*\*\*p<.001

1 = Subjective Vitality 2 = Compassion Fatigue and 3 = Empathy

The results of the analysis show that subjective vitality has a non-significant relationship with compassion fatigue and empathy, but it has a significantly positive relationship with relationships ( $r = .76^{**}$ ), compassion satisfaction ( $r = .34^{**}$ ), and positive affective empathy ( $r = .13^{**}$ ), it also has a significantly negative relation with burnout ( $r = -.15^{**}$ ). This establishes that with the increase in subjective vitality there is an increase in relationships, compassion satisfaction and positive affective empathy and decrease in burnout.

Compassion Fatigue has a significantly positive relation with empathy ( $r = .53^{**}$ ), relationship ( $r = .11^{**}$ ), burnout ( $r = .70^{**}$ ), compassion satisfaction ( $r = .66^{**}$ ), and positive affective empathy ( $r = .45^{**}$ ), the results indicate that an increase in compassion fatigue is related to an increase in these variables. Among these burnout and compassion satisfaction are its subscales which show a strong relation; however, the relation is also strong with empathy but there

is no significant relation with subjective vitality. Furthermore, empathy shows a significant and positive relation with relationships ( $r = .11^*$ ), burnout ( $r = .32^{**}$ ), compassion satisfaction ( $r = .39^{**}$ ), and positive affective empathy ( $.78^{**}$ ). This shows that the increase in empathy is related to an increase in the above-mentioned variables.

Relationships show a non-significant relation with burnout and positive affective empathy and significantly positive relation with compassion satisfaction ( $r = .34^{**}$ ). This shows that an increase in relationship shows an increase in compassion satisfaction. Similarly, burnout shows a significantly positive relation with compassion satisfaction ( $r = .14^*$ ), and positive affective empathy ( $r = .26^{**}$ ). The results also show that positive affective empathy has a significantly positive relation with compassion satisfaction ( $r = .35^{**}$ ), showing that an increased rate of positive affective empathy correlates with an increased rate of compassion satisfaction.

**Table 4**  
Hierarchal Regression

Variables	B	SE B	$\beta$	Adj R <sup>2</sup>	$\Delta R^2$	p
<b>Model 1</b>						
Constant	55.291	3.804		.004	.008	.000
Subjective Vitality	.074	.048	.087			.129



**Model 2**

Constant	13.312	5.020	.284	.289	.008
Subjective Vitality	.036	.041	.042		.389
Compassion Fatigue	.482	.044	.532		.000

Note: B = Unstandardized regression coefficient, SE B = Standard error of regression coefficient,  $\beta$  = Beta, Adj R<sup>2</sup> = Adjusted R square,  $\Delta R^2$  = Delta R square, p = significance value Constant = DV = Empathy

The hierarchal regression models assessed the impact of different predictor variables. The Model 1 examined the predictor subjective vitality, revealing a minor yet statistically significant effect on the outcome variable. However, the model's prediction power was limited, accounting for only 0.8% of the outcome's variance, this indicated that there was a very small percentage of change that was barely visible which was not significant (p = .129), the value was way higher than the range of significance. Model 2 expands the analysis to include both subjective vitality and compassion fatigue as predictors, revealing a substantial

impact with a coefficient of 0.48. This model showed significantly greater prediction, it explained approximately 28.9% of the outcome's variance. The combination of the predictors Compassion Fatigue and Subjective Vitality in Model 2 was highly statistically significant (p=.000), confirming the prediction of empathy. The progression from Model 1 to Model 2 highlights the added value and predictive efficacy gained from incorporating multiple predictors into regression analysis. The result showed that alone subjective vitality does not predict empathy but when combined with compassion fatigue the results are noticeable.

**Table 5**  
Moderation Analysis

Effect	Estimate	SE	95% Confidence Interval		P
			LL	UL	
Constant	31.65	21.97	-11.59	74.89	0.15
Subjective Vitality	-0.19	.26	-.72	.33	.47
Compassion Fatigue	0.27	.24	-.19	.75	.24
Subjective Vitality x Compassion fatigue	0.002	.002	-.003	.0083	.3920

Note: Estimate = Coefficient Estimate, SE = Standard Error, LL = Lower Limit, UL = Upper limit, p = Significance value

Moderator analysis represents the value of the outcome variable Empathy, which is estimated to

be 31.65, however the result is not statistically significant. The predictor variables subjective

vitality and compassion fatigue showed coefficient estimates of -0.19 and 0.27, which indicated possible influence on empathy, however neither variable shows statistical significance. The combination of Subjective vitality and Compassion Fatigue, which aimed to represent the joint impact the variables, has an estimated coefficient of 0.002 that suggest a possible effect on empathy, although the p value was not statistically significant. The model did not show significant correlations between the predictor variables subjective vitality, compassion fatigue and their interaction on Empathy. This indicated that these variables do not consistently predict empathy.

### **Summary**

The results of the study reliability analysis for three distinct scales: Subjective Vitality (BBC Wellbeing Scale), Compassion Fatigue (Professional Quality of Life Scale-5 - ProQOL), and Empathy (Perth Empathy Scale) indicated that all scales and subscales were reliable, some had good reliability and some had moderate reliability, this research investigated the relationship among Subjective Vitality, Compassion Fatigue, and Empathy. The findings indicated a significantly positive relation of compassion fatigue and empathy, but there existed no significant relation of subjective vitality with, compassion fatigue and empathy. However, the results also showed that the subscale of subjective vitality i.e. relationships showed a significantly positive relation with empathy, compassion fatigue and compassion satisfaction which is a subscale of compassion fatigue.

Compassion satisfaction has a significantly positive relation with, subjective vitality, compassion fatigue, empathy, relationships, and positive affective empathy. Positive affective empathy however only had a significant positive relation with subjective vitality, compassion fatigue and compassion satisfaction, furthermore the relation was non-significant with relationships.

Further the results of regression showed that the variable subjective vitality does not predict empathy in health care professions, but compassion fatigue in the presence of subjective vitality showed the prediction at the rate of 28.9%

while also being significant. The moderation analysis of subjective vitality x compassion fatigue showed the estimated coefficient of 0.2% suggesting a possible interaction effect on empathy, although it was not statistically significant.

### **Discussion**

The discussion of the findings of the current study aimed to contemplate the relation among subjective vitality, compassion fatigue and empathy in health care professionals, it also aimed to investigate if subjective vitality or compassion fatigue predicted empathy in health care professionals, along with if the two variable moderate empathy in healthcare professionals. Among these compassion fatigue and empathy had the strongest and a significantly positive relationship. The research illuminated the positive relation between compassion fatigue and empathy. Hansen et al. (2018) found that experiencing empathy can result in compassion fatigue. Another Research concluded that Emotional contagion which is the rapid transmission of emotions and actions within a social group and empathy are closely related. Empathy and emotional contagion strongly influence compassion fatigue (Evli, 2023). Assessing the role of empathy in compassion fatigue, compassion satisfaction, burnout and secondary traumatic stress it was concluded and suggested that training and education should incorporate empathy throughout the social worker's career (Wagaman et al., 2015).

Subjective vitality did not show a significantly positive relation with compassion fatigue and empathy; however, the results did explore a more complex relation with one of the subscales of subjective vitality, the first subscale that examined relationships showed a significantly positive relation with compassion fatigue and empathy. With the contextual evidence it was approved and stated that there in fact exists a relation among all variables in health care professionals, research was conducted in 2014 which aimed to examine types of empathy with relationship satisfaction its results showed that The total perceived dyadic empathy and perceived dyadic empathic congruence were substantial predictors of relationship satisfaction (Kimmes et al., 2014).

A study contradicting to the results of the research was conducted to interpret the correlation between empathy and professional quality of life in cancer healthcare providers. Empathic concern was positively correlated with secondary traumatic stress, a component of Compassion fatigue. This relationship was associated with higher life satisfaction and reduced levels of burnout and weariness along with less signs of empathy (Hunt et al., 2019). Challenging events ultimately lead to increased resilience in individuals, as suggested by Hansen et al. (2018). Another research that is contradictory to the results provided stated that there is a positive correlation between marital satisfaction and job fatigue (Williams, 2007).

The second hypothesis stated that Subjective Vitality and Compassion Fatigue will likely predict Empathy in Health Care Professionals. The results of the present study with the hierarchical regression model stated that no demographic variable that were asked could predict empathy in health care workers. However substantial evidence was provided that concluded the result stating subjective vitality and compassion fatigue showed statistically significant results that showed that empathy in fact can be predicted by these variables, this result approved our hypothesis.

In the third and final hypothesis, it was hypothesized that compassion fatigue had a moderating role on subjective vitality and empathy. The results and analysis of the data approved the hypothesis. According to the interpretation of results compassion fatigue had no significant moderating role on subjective vitality or empathy, whereas the combined relation of subjective vitality and compassion fatigue did had a moderating effect on empathy. The coefficient value did show a good value for the prediction but due to the results not being significant the hypothesis was rejected. A research where subjective vitality worked as a moderator in clinicians' history of trauma and compassion fatigue, the results indicated that vitality played a crucial role as a protective factor against the development of compassion fatigue in counsellors who had experienced trauma (Martin-Cuellar et al., 2019). The most significant component, according to Cao and Chen (2021) was compassion fatigue, which had a

significant positive effect, suggested that having more compassion fatigue and empathy is linked to having more intents to quit one's employment.

The contradiction to result may have occurred due to the kind of exposure to the health care professional's adverse situational background. Pakistan is a country where there is poverty which leads to the inability of an individual to sufficiently pay for their medical bills, when such individuals seek treatments, they go to such hospitals and healthcare institutes where treatment may be budget friendly. When that happens the amount of patients take a toll and many patients due to the need of being treated at the very moment share space with other patients which leads the health care professional to empathise with them. Inflation is something that has very strongly influenced every individual on a certain level, those related to health care professions deal individuals regardless of any socio-economic factor, but as a patient that needs treatment. For healthcare professionals its easier for them to treat those individuals as they are well aware of their circumstances.

### **Limitation**

- i. The limitations of the research were that the data was collected from both private and government hospitals that may show variability in the results, healthcare professionals in teaching hospital, government hospitals, and trust hospitals tend to have a significantly higher patient load than those from private hospitals, due to this the everyday exposure to trauma is higher.
- ii. The exclusion criteria stated that healthcare professionals who were expecting or have recently given birth were exempted from the research because at that time mothers or to be mothers experience heightened sense of empathy and compassion exhibiting a unique emotional reaction that would introduce extraneous variables in the research.
- iii. Another exclusion criteria was employed, health care professionals who exhibited significant health difficulties or circumstances that could potentially impede their capacity to offer precise

responses this was because if an individual is going through something that the healthcare professional can relate and resonate with, this would have affected their quality of treatment and how much they would empathise with the individuals.

- iv. The correlational results provided a valuable insight of the subscales, it is recommended to further study how relationships, burnout, compassion satisfaction and positive affective empathy.
- v. It is further recommended to examine the relation of compassion fatigue, compassion satisfaction, empathy and relationship.

### Implications

- i. The research findings indicate that healthcare providers may experience compassion fatigue and can help them empathise with their patients.
- ii. Through the early identification of these individuals, institutions can develop interventions aimed at improving Subjective Vitality and empathy. This proactive approach can effectively mitigate compassion fatigue and ultimately contribute to the provision of high-quality patient care.
- iii. The results of this study may potentially have a positive impact on medical school curriculum, as they suggest the importance of incorporating emotional well-being and empathy training into the training of future health care professionals.
- iv. The findings of this study have the potential to influence policy formulation in healthcare facilities, with a focus on prioritizing the welfare of health care professionals and mitigating the occurrence of compassion fatigue.
- v. Additionally, this study serves as a fundamental basis for future research endeavours, with the objective of augmenting the overall well-being and fostering empathy among healthcare practitioners in many fields of specialization.

- vi. This has the potential to enhance the quality of patient care and increase professional satisfaction.

### Conclusion

The overall findings conclude that subjective vitality, compassion fatigue and empathy along with their subscales can contemplate the relation among all variables, the regression analysis showed that individually subjective vitality may not predict empathy but with the presence of compassion fatigue empathy can be predicted. Finally, the moderation analysis showed that neither subjective vitality nor compassion fatigue moderates' empathy.

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