http://medpr.imp.lodz.pl/en https://doi.org/10.13075/mp.5893.01598

ORIGINAL PAPER

SPIRITUAL CARE AS A MEDIATOR IN THE RELATIONSHIP OF THE LIGHT AND DARK TRIAD WITH LIFE AND WORK SATISFACTION AMONG HOSPICE WORKERS

Dagna Kocur[1], Dariusz Krok[2], Małgorzata Fopka-Kowalczyk[3], Aleksandra Żenda[1]

[1] University of Silesia in Katowice, Katowice, Poland
Institute of Psychology

[2] Opole University, Opole, Poland
Institute of Psychology

[3] Nicolaus Copernicus University in Toruń, Toruń, Poland
Department of Pedagogical Sciences

Highlights

- Light and dark triad traits showed significant links to spiritual care.
- Spiritual care mediated the light triad's link with life satisfaction.
- Spiritual care mediated the dark triad's link with life and work satisfaction.

Abstract

Background: Spiritual care refers to the provision of support that recognizes and responds to the spiritual needs of patients, particularly in times of illness, distress, or crisis. It encompasses addressing questions of meaning, purpose, connection, and transcendence, as well as supporting religious and existential concerns. Working in palliative care requires exceptional interpersonal skills, as hospice workers often develop close relationships with patients and their families during critical moments in their lives. While much research highlights the significance of spiritual care for the well-being of patients and their loved ones, growing attention is being given to its role in the functioning of palliative care workers. **Material and Methods:** This study examined a mediation model in which spiritual care mediated the relationship between the light and dark triads and life and work satisfaction among hospice workers. A cross-sectional study was conducted with 261 hospice workers in Poland. **Results:** Results indicated that, among palliative care workers, the light triad was positively associated with spiritual care, life satisfaction, and work satisfaction, while the dark triad was negatively associated only with spiritual care. Additionally, spiritual care was positively linked to both life and work satisfaction. Mediation analysis revealed that spiritual care mediated the relationship between the light triad and life satisfaction, as well as the relationship between the dark triad and both life and work satisfaction among palliative care workers. **Conclusions:** These findings from a cross-sectional study highlight the crucial role of spiritual care in enhancing the life and work satisfaction of hospice workers. Given its significance, integrating spiritual care training and support systems into palliative care settings could foster both personal well-being and professional fulfilment among hospice workers. Future research should explore interventions aimed at strengthening spiritual care competencies and examine their long-term effects on healthcare professionals' resilience and job satisfaction. Med Pr Work Health Saf. 2025;76(2)

Key words: life satisfaction, work satisfaction, dark triad, spiritual care, light triad, hospice workers

Corresponding author: Aleksandra Żenda, University of Silesia in Katowice, Institute of Psychology, Grażyńskiego 53, 40-126 Katowice, Poland, e-mail: aleksandra.zenda@us.edu.pl
Received: November 29, 2024, accepted: March 26, 2025

INTRODUCTION

Recommendations on the competences of palliative care professionals point to the need not only for expertise with regard to medical treatment and professional care, but also spiritual care [1]. The review by Willemse and colleagues [2] points to 3 essential elements when defining spiritual care in the most common definitions:

- connectedness,
- meaning and purpose of life,
- transcendence.

So far, the spiritual care in nursing practice (SCNiP) theory is the only empirically derived theoretical framework to guide research into spiritual care [3]. This theory indicates that the final effect of spiritual care can be the spiritual well-being of healthcare workers. According to the recommendations of the European Association of Palliative Care, spirituality is one of the aspects of patient care, significant in working with chronically ill and terminal patients [4]. Surveys involving patients and their relatives indicate that, in addition to professionalism, they need to meet another human being in

the person of the physician or other staff member [5,6], and that patients appreciate when staff members look after their spiritual needs [7,8]. Definition of spiritual care published by National Health Service Education for Scotland shows that "spiritual care in its broad and inclusive sense can perhaps help give us a workable credo, as we acknowledge the importance of responding to spiritual need of all kinds in the health care environment. Spiritual care is that care which recognises and responds to basic human needs and core beliefs when faced with trauma, ill health or sadness and can include the need for meaning-making, for self-worth, to express oneself honestly, for particular faith or belief group support, perhaps for rites or prayer or sacrament, or simply for a sensitive listener. Spiritual care begins with compassion in all of our human contacts, and especially in healthcare, and moves in whatever direction need requires" [9]. What is important spirituality is the attribute of each person even if they declare atheism or be outside the church [10,11]. Crucially, the World Health Organization recognises the spiritual care as a fundamental part of palliative care – there treatment is pain and also psychological and spiritual problems [12].

Research indicates that employees' concern for their spiritual needs is valued by them [7,8]. It is also worth mentioning the expectations of the labour market, where high interpersonal skills are increasingly required of future employees [13,14]. In palliative care, this takes on particular importance because of the subject of care, i.e., patients with a high risk of suffering and death, which reinforce spiritual questions about the meaning of life and suffering, making patients ask questions about the meaning of their lives, the quality of their relationships with loved ones and the issue of forgiveness, hope and other [15]. Patients with cancer report higher spiritual needs than patients with chronic pain diseases [16]. That is way having spiritual interpersonal skills and professional competences not only improves the patients' quality of life, but also results in an improvement in the quality of care provided [1]. According to Leget [10] spiritual attitude can be seen as a way of connecting with one's inner life and discovering the many inner voices that inhabit us. The self is basically polyphonic and being open to this polyphony can be a great gift to oneself. It can also be a gift to other people when it is used in communication. Spiritual care competence includes knowledge, behaviours, attitudes, and skills that enable successful or efficient care [17]. Spiritual care competence integrates:

- knowledge (encompassing comprehension of spirituality and religion, the integration of spirituality and belief in patient care, and familiarity with relevant resources and literature);
- skills (encompassing assessment and therapy, effective communication and listening, and the ability to provide compassionate presence, deliver holistic spiritual care, and navigate differences in belief);
- attitudes (encompassing respect, spiritual self-awareness, self-care, and a focus on spiritual well-being) [17].

It is worth noting that lack of spiritual skills make the behaviours of palliative staff more technical in relation to patient, when professionals behave without compassion, empathy and mindfulness to patients need.

Importantly, spiritual care provided by medical care staff is advantageous not only for the patients and their families [2], but also for the staff members themselves. This is particularly significant because of how difficult and burdensome it is to perform this work [18]. Spirituality and spiritual care competence is positively related to work satisfaction and negatively to moral distress [19] and buffer against compassion fatigue, secondary traumatic stress, and burnout [20]. To be more compassionate to the patients and providing spiritual care to them, it is essential to develop the spiritual perception, which is define in literature as self-awareness of spirituality in ourself and around; ability to know and understand the new spirituality things in human being and in the world [21]. In the field of palliative care spiritual perception also has a positive impact on job satisfaction, but this relationship is significantly moderated by factors such as length of service [22]. Additionally, personality traits such as the light and dark triad are associated with a willingness to help, empathy, and compassion [23–26]. Therefore, according to the SCNiP theory, they may play an important role in deciding on spiritual care intervention [3].

Research points to connections of the light and dark triad with life and work satisfaction. The light triad is positively correlated, while the dark triad is negatively correlated with life satisfaction [24], for instance, some studies indicate positive links of Machiavellianism and negative links of psychopathy with life satisfaction [27], and other research points to positive links of narcissism and negative links of psychopathy with life satisfaction [28]. Machiavellianism, in turn, negatively correlates with work satisfaction [29]. Interestingly, in different sectors of the helping professions, negative correlations have been demonstrated of both Machiavellianism and psychopathy with work satisfaction [30].

The light triad is always positively correlated with life satisfaction [24] and work satisfaction [31]. Yet, some studies demonstrated that only 2 dimensions of the light triad were positively related to optimism: faith in humanity and humanism [32], and each dark triad trait had a specific pattern of relationships to life satisfaction: narcissism was positively and psychopathy was negatively related to life satisfaction, whereas Machiavellianism did not have any significant connection [33].

However, the question arises about the potential mediators of these relationships. Earlier research demonstrated that spiritual care was connected with work satisfaction, and negatively linked to occupational burnout [34]. To providing spirituality in own life and in palliative care to patients and families, it is important to know some the spiritual interventions. Knowing the ways in which professionals can support their patients using spirituality increase the quality of relationships with people in advanced stage of their disease. It can be also essential for patients who can felt treated with respect and dignity. Example of those intervention is dignity therapy by Chochinov [35] or *ars moriendi* model by Leget [10]. In the dignity therapy, during the meetings, the patient is encouraged to tell his life story, paying particular attention to events that were important to him and that had an impact on his life. The patient is also asked to tell what he or she would like those close to him or her to know about him or her. The meetings are recorded and the recordings are then read out and corrected by the patient, who in turn can pass the recordings on to his or her relatives. The patient has also chance to prepare the message to his family based on earlier telling history [36]. In the *ars moriendi* model, the patient is asked to tell his life story and recognise and describe the good things of his life. He has the opportunity to reframe his or her situation from the perspective of having had a life worth living. "Being invited by someone who listens attentively has a comforting and even healing effect. The act of really listening to someone is an act of bestowing interpersonal or social dignity on them. Inner space plays a central role here" [10]. In addition, spiritual care interventions result in increased life satisfaction [37]. Unfortunately, few studies analyse the links between spiritual care and the light and dark triads, and only some point to the positive connections between the light triad and spiritual care [38].

The present study

This study examined a mediation model within which spiritual care mediated the relationship of the light and dark triad dimensions with life and work satisfaction among hospice workers. Based on both SCNiP theory [3] and previous research, the following hypotheses were proposed:

- hypothesis 1: the light triad dimensions will be positively related to life and work satisfaction, whereas the dark triad dimensions will be negatively related to these constructs;
- hypothesis 2: spiritual care will mediate the relationship of the light triad dimensions with life and work satisfaction. More specifically, higher levels of the light triad dimensions will be related to higher spiritual care, which, in turn, will be related to satisfaction;
- hypothesis 3: spiritual care will mediate the relationship of the dark triad dimensions with life and work satisfaction. More specifically, higher levels of the dark triad dimensions will be related to lower spiritual care, which, in turn, will be related to lower satisfaction.

MATERIAL AND METHODS

Participants

This exploratory and cross-sectional study sampled current hospice workers in Poland, April 2022 – September 2023. Purposive sampling was used to conduct the study, in which an invitation to participate was circulated to all hospice staff who had been working in hospice units for ≥3 months. A total of 261 hospice workers (232 women and 29 men) took part in the present study. They represented a spectrum of professions working in the field of hospice care: doctors (N = 35, 13.4%), nurses (N = 171, 65.5%), psychologists (N = 19, 7.2%), physiotherapists (N = 28, 10.8%), and social workers (N = 8, 3.1%). Participants ranged 24–72 years of age (M±SD 44.62±10.58). Their length of service was 1–46 years (M±SD 18.11±11.09).

Procedure

Participants were invited to participate in the study on a voluntary basis and could withdraw at any time. They were recruited either personally by research assistants or electronically (i.e., email, instant messaging, social media advertisements). Initially, a total of 297 individuals were recruited; yet, due to various reasons, 36 people declined or did not fill in the questionnaires, so after data cleaning and screening, the final sample included 261 participants. After obtaining informed consent, participants were given a set of questionnaires with

a general description of the study to complete on their own time. This study was reported in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology checklists and its protocols and procedures were approved by a university institutional review board.

Measures

The Light Triad Scale [24] measures 3 positive personality traits: faith in humanity, humanism, and Kantianism. Their arithmetic mean gives the overall score. The Polish version of the scale was used in the current study [39]. It consists of 12 items which are rated on a 5-point Likert scale. The Cronbach's α for the current study were 0.79 (faith in humanity), 0.74 (humanism), 0.69 (Kantianism), and 0.77 (the total score). The mean inter-item correlations for the current study were 0.38 (faith in humanity), 0.33 (humanism), and 0.26 (Kantianism).

The Dark Triad Scale [40] measures 3 negative personality traits: psychopathy, narcissism, and Machiavellianism as personality traits. Their arithmetic mean gives the overall score. The scale includes 12 items, which are rated on a 5-point Likert scale. The Cronbach's α for the current study were 0.77 (psychopathy), 0.81 (narcissism), 0.85 (Machiavellianism), and 0.88 (the total score). The mean inter-item correlations for the current study were 0.20 (psychopathy), 0.44 (narcissism), and 0.38 (Machiavellianism).

The Spiritual Supporter Scale [4] questionnaire is used to assess competencies in providing spiritual care. It includes 5 dimensions of spiritual care: spirituality in relation to one's own and others' suffering, attitude to prayer (as a form of spiritual support), beliefs about spirituality, community as a support system, and sensitivity to suffering (ability to recognise suffering). The sum of individual subscale scores gives a total score. Due to the purpose of the study, only the overall result was used. The scale consists of 31 items rated on a 4-point Likert scale. In the current study, Cronbach's α ranged 0.66–0.86 for the spiritual concern subscales and 0.88 for the total score.

The Satisfaction with Life Scale [41] was used to measure global life satisfaction. The scale has favourable psychometric properties and is widely used in research. It comprises 5 items rated on a 7-point Likert scale. Higher scores indicate greater global satisfaction with life. Cronbach's α for the current study was 0.85. The mean inter-item correlation for the current study was 0.45.

The Satisfaction with Job Scale [42] was used to measure work satisfaction. It is an accurate and reliable research tool that enables the measurement of the cognitive aspect of overall job satisfaction. It contains 5 questions with possible answers on a 7-point Likert scale. The higher the score, the higher the level of job satisfaction. The Cronbach's α for the current study was 0.83. The mean inter-item correlation for the current study was 0.46.

Analytic strategy

A power analysis was carried out a *priori* to estimate an adequate number of participants. G*Power was used in accordance with recommendations by Faul et al. [43] with the following parameters: a desired power level (1–β), a pre-specified significance level (α = 0.05), and a test power of (1–β) = 0.80. The result indicated that for the estimated small effect size level (0.06), the sufficient number of participants was 247. After taking into account the Bonferroni correction, and the desired level of power (1–β), a pre-specified significance level (α = 0.004) and the power of the test (1–β) = 0.80, the result indicated that the sufficient number of participants was 259 for the estimated level of small effect size (0.09). To ensure statistical confidence in the calculations, a slightly larger number of subjects were used (N = 261).

As this study was based on a mediational model, using self-description questionnaires, the recommended statistical procedures were performed to ensure the statistical reliability of the data. The result of Harman's one-factor test showed that all items formed 23 different factors with the first unrotated factor explaining only 18.78% of the variance, which excludes the common method variance error. The variance inflation factor was 1.37, which indicates no multicollinearity among the independent variables. Next, IBM SPSS with the PROCESS macro v. 4.2 (Andrew F. Hayes, Calgary, Canada) was used [44] to calculate descriptive statistics, Cronbach's α, and Pearson's correlations. Finally, mediation analysis (model 4) with bootstrapping procedures (10 000 samples, 95% bias-corrected confidence intervals [CI]) was used to estimate direct and indirect effects among variables.

RESULTS

Preliminary analysis

The results of correlational analysis showed that age was positively correlated with Kantianism ($r = 0.15$, $p < 0.05$), and negatively correlated with narcissism ($r = -0.14$, $p < 0.05$), and the total score of the dark tri-

ad (r = −0.14, p < 0.05). Length of service was negatively associated with faith in humanity (r = −0.16, p < 0.01), the total score of the dark triad (r = −0.13, p < 0.05), and work satisfaction (r = −0.13, p < 0.05).

Correlations among spiritual care, meaning in life, inner harmony, compassion for others, and self-compassion are displayed in Table 1. The table shows the results that take into account the Bonferroni correction, after which they turned out to be statistically non-significant. The main reason was to control the estimation of the chance of error in multiple testing.

The 3 dimensions of the light triad: faith in humanity, humanism, and Kantianism along with its overall result were negatively correlated with Machiavellianism and the overall score of the dark triad. After taking into account the Bonferroni correction, the correlations between faith in humanity and Machiavellianism and the overall score of the dark triad, and between humanism and psychopathy and the overall score of the dark triad, and between the overall result of the light triad and narcissism turned out to be non-significant. Kantianism was also negatively correlated with narcissism and psychopathy, while humanism was only negatively correlated with psychopathy. In contrast, all the dimensions of the light triad and its total score were positively correlated with spiritual care, life satisfaction, and work satisfaction. After taking into account the Bonferroni correction, the correlations between humanism, Kantianism, and life satisfaction turned out to be non-significant. Psychopathy, Machiavellianism, and the overall score of the dark triad were negatively associated with spiritual care. In addition, Machiavellianism, but not narcissism and psychopathy, was negatively associated with life and work satisfaction. After taking into account the Bonferroni correction, the correlation between Machiavellianism and life satisfaction turned out to be non-significant. Spiritual care was positively associated with life satisfaction, but not with work satisfaction.

Mediational analysis

After examining the correlation among key variables, mediational analysis (model 4) was conducted using the PROCESS macro 4.2 [44]. The analysis examined the direct and indirect effects of the light and dark triads, separately on life and work satisfaction, with spiritual care as a mediating variable (Table 2). In addition, age and the length of service were included as covariates.

First, the light triad as an independent variable was introduced into mediational analysis (Figure 1a–b).

Table 1. Pearson's correlations among the light triad, the dark triad, spiritual care, life satisfaction, and work satisfaction of 261 hospice workers in Poland, April 2022 – September 2023

Variable	M±SD	Pearson's correlation										
		1	2	3	4	5	6	7	8	9	10	11
1. Faith in humanity	3.77±0.67	–										
2. Humanism	3.93±0.55	0.40***	–									
3. Kantianism	4.31±0.52	0.30***	0.40***	–								
4. The light triad	4.00±0.44	0.79***	0.78***	0.71***	–							
5. Narcissism	2.06±0.85	–0.08	-0.01	–0.34***	–0.17**[a]	–						
6. Psychopathy	1.58±0.54	–0.10	–0.13*[a]	–0.32***	–0.24***	0.37***	–					
7. Machiavellianism	1.52±0.53	–0.19**[a]	–0.20***	–0.46***	–0.36***	0.51***	0.66***	–				
8. The dark triad	1.72±0.52	–0.14*[a]	–0.12*[a]	–0.45***	–0.30***	0.84***	0.76***	0.84***	–			
9. Spiritual care	2.22±0.40	0.21**	0.24***	0.33***	0.33***	–0.15*[a]	–0.17**[a]	–0.24**	–0.22***	–		
10. Life satisfaction	4.45±1.13	0.29***	0.14*[a]	0.19**[a]	0.28***	-0.01	-0.03	–0.15*[a]	–0.07	0.33***	–	
11. Work satisfaction	5.06±1.01	0.33***	0.28***	0.33***	0.41***	–0.02	–0.08	–0.20***	–0.11	0.17**[a]	0.37***	–

* p < 0.05, ** p < 0.01, *** p < 0.001.

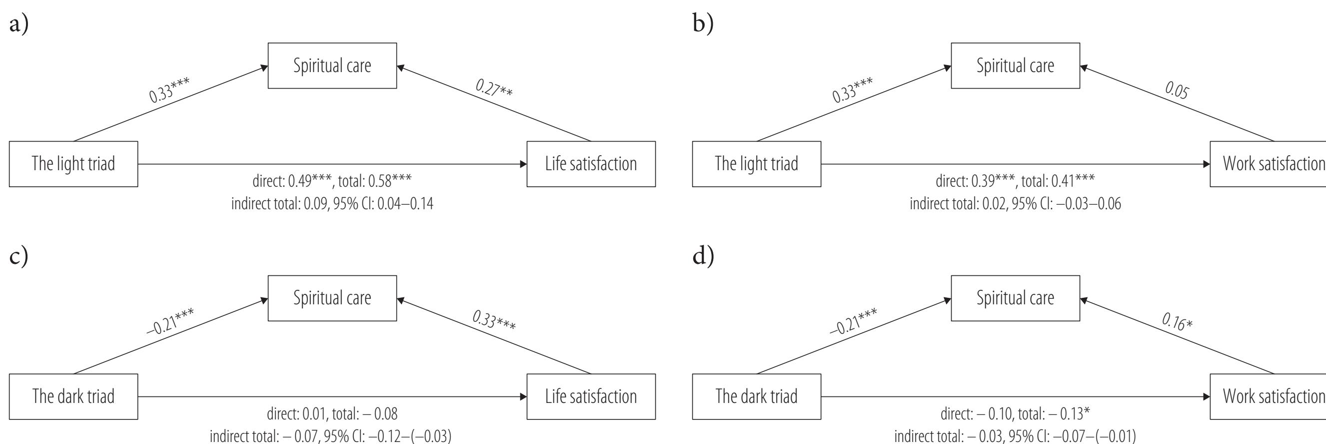
[a] Results taking into account the Bonferroni correction, after which they turned out to be statistically non-significant.

Table 2. Mediation estimates for spiritual care in mediating the relationship between the dimensions of the light triad, dark triad and life and work satisfaction, respectively, 261 hospice workers in Poland, April 2022 – September 2023

Variable	Indirect effect	SE	95% CI
Faith in humanity – Spiritual care – Life satisfaction	0.06	0.02	0.02–0.10
Humanism – Spiritual care – Life satisfaction	0.08	0.03	0.03–0.13
Kantianism – Spiritual care – Life satisfaction	0.10	0.03	0.05–0.16
Faith in humanity – Spiritual care – Work satisfaction	0.02	0.02	–0.01–0.06
Humanism – Spiritual care – Work satisfaction	0.03	0.02	–0.01–0.07
Kantianism – Spiritual care – Work satisfaction	0.02	0.02	–0.02–0.07
Narcissism – Spiritual care – Life satisfaction	–0.05	0.02	–0.10–(–0.01)
Psychopathy – Spiritual care – Life satisfaction	–0.06	0.02	–0.11–(–0.02)
Machiavellianism – Spiritual care – Life satisfaction	–0.08	0.03	–0.13–(–0.03)
Narcissism – Spiritual care – Work satisfaction	–0.03	0.02	–0.06–(–0.01)
Psychopathy – Spiritual care – Work satisfaction	–0.03	0.02	–0.06–(–0.01)
Machiavellianism – Spiritual care – Work satisfaction	–0.02	0.02	–0.07–0.01

As hypothesized, the results showed a significant indirect effect of the light triad on life satisfaction through spiritual care, b = 0.09, 95% CI: 0.04–0.14, indicating that higher spiritual care mediated the relationship between the light triad and higher life satisfaction. Specifically, a higher level of the light triad was related to higher spiritual care (b = 0.33, 95% CI: 0.19–0.41), and higher spiritual care was related to higher life satisfaction (b = 0.27, 95% CI: 0.17–0.79). In contrast, the indirect effect of the light triad on work satisfaction through spiritual care turned out to be non-significant, b = 0.02, 95% CI: –0.03–0.06, indicating no mediational effect. There was a significant positive association between the light triad and spiritual care (b = 0.33, 95% CI: 0.19–0.41), but there was no significant association between spiritual care and work satisfaction (b = 0.05, 95% CI: –0.17–0.42). For the light triad, neither gender nor age as covariates had statistically significant effects on life and work satisfaction ($p > 0.05$).

Next, the dark triad as an independent variable was entered into mediational analysis (Figure 1c–d). As hypothesized, there was a significant indirect effect of the dark triad on life satisfaction through spiritual care, b = –0.07, 95% CI: –0.12–(–0.03), indicating that spiritual care mediated the relationship between the dark triad and life satisfaction. Specifically, a higher level of the dark triad was related to lower spiritual care (b = –0.21, 95% CI: –0.25–(–0.07)), and lower spiritual care was related



* p < 0.05, ** p < 0.01, *** p < 0.001.

Figure 1. Mediation model for spiritual care in associations between the light triad and a) life and b) work satisfaction, and the dark triad and c) life and d) work satisfaction (standardized coefficients) of 261 hospice workers in Poland, April 2022 – September 2023

to lower life satisfaction (b = 0.33, 95% CI: 0.31–0.68). The indirect effect of the dark triad on work satisfaction was also significant, b = –0.03, 95% CI: –0.07–(–0.01). Specifically, a higher dark triad score was related to lower spiritual care (b = –0.21, 95% CI: –0.25–(–0.07)), which, in turn, was related to lower work satisfaction (b = 0.16, 95% CI: 0.09–0.61). For the dark triad, neither gender nor age as covariates had statistically significant effects on life and work satisfaction ($p > 0.05$).

To demonstrate the mediational effects of spiritual care on the individual dimensions of the light and dark triad and life and work satisfaction, respectively, the indirect effects for each case separately was calculated.

The results of indirect effects showed that in the case of the light triad, spiritual care mediated relationships between faith in humanity, humanism, and Kantianism, and life satisfaction, respectively. In contrast, spiritual care did not mediate any of the relationships between faith in humanity, humanism, and Kantianism, and work satisfaction, respectively. For the dark triad, spiritual care mediated relationships between narcissism, psychopathy, and Machiavellianism, and life satisfaction, respectively, as well as between narcissism, psychopathy and work satisfaction, respectively. In only 1 case, between Machiavellianism and work satisfaction, no mediational effect was obtained.

DISCUSSION

This study examined a mediation model within which spiritual care mediated the relationship of the light and dark triad with life and work satisfaction among hospice workers. The obtained results confirm the hypotheses. At the outset, it is worth emphasizing that this study, for the first time, highlights significant associations between light and dark triad traits and spiritual care. This study also partially confirms the assumptions of the SCNiP theory [3] and expands it by adding the importance of individual characteristics of the helping person, including character traits that turned out to have both a direct and indirect impact on life and work satisfaction among hospice workers.

The results confirmed the hypothesis that spiritual care mediates the association of light triad traits with life satisfaction. If the light triad involves seeing goodness in other people and being able to look after dignity and intimacy, then in such a context the result obtained is in line with research indicating a link between personal spiritual life and treating others as subjects, and may influence the manner in which they relate to patients and provide care [45–47]. In terms of practice, the results indicate a greater tendency for hospice staff to adopt an attentive and indifferent, compassionate relationship with the dying patient. The more the staff is practised in their spirituality, the less often they adopt attitudes of indifference, disinterest or instrumental performance of their work towards the patient. Considering the expectations of patients, for whom the qualities of the staff to have kind and caring contact with them or to hold a conversation are important, these results seem significant. They become an invitation to staff to raise awareness in this respect by, e.g., improving their competences and interpersonal skills.

The results also support the hypothesis that spiritual concern mediates the association between dark triad traits and life satisfaction, as well as work satisfaction. The negative impact of dark triad traits on satisfaction were confirmed by previous research [24]. However, in many studies the results happen to be inconsistent. Some dark triad elements displayed negative, and others positive associations with life satisfaction [27–29]. In this study only Machiavellianism correlated negatively with both life and work satisfaction. Similar results related to work satisfaction were obtained by Jonason et al. [29], Čopková and Araňošová [30]. In the practical area, a relationship between a patient and a hospice worker dissatisfied with their work, with a sense of dissatisfaction or with Machiavellian traits (or others arising from the dark triad) could result in a relationship characterised by a lack of respect or indifference to the needs of the patient. A high degree of psychopathy in caring for a dying patient would make it impossible or difficult to show empathy and compassion towards the patient's suffering, and Machiavellianism would lead to a lack of commitment to the relationship and doing the work in an instrumental way without paying attention to what the patient is experiencing. In practice, such a worker would be someone the patient would be reluctant to meet through a lack of perceived commitment and support in their situation, as it could be that the worker is rude, abrasive or cold towards the patient or their family in the relationship.

This study also indicated positive correlations of age with Kantianism and negative correlations with narcissism, while length of service was negatively associated with faith in humanity, as well as with work satisfaction. This indicates, among other things, a risk of burnout among long-serving employees [48], and perhaps less faith in humanity or greater cynicism also due to the costs associated with helping in the case of long

seniority [49]. Worth emphasising, however, are the results pointing to a decrease in dark triad traits with age and length of service, which is in line with previous research [50].

Limitations and further research

While this study has limitations, particularly due to its cross-sectional design, it is not possible to infer causality from these findings using the mediational model. Future research, employing longitudinal methodologies and interventions promoting spiritual care, could provide essential evidence validating relationship dynamics. Additionally, this results focus solely on palliative care workers, prompting further exploration of competencies in comparison to professionals assisting individuals in similar challenging life or health situations.

CONCLUSIONS

This study examined a mediation model within which spiritual care mediated the relationship of the light and dark triad with life and work satisfaction among hospice workers. According to results, a higher index of spiritual care and the light triad among employees increases their job satisfaction and the quality of their relationship with the patient and their profession. A higher level of the dark triad index, on the other hand, means that employees also have fewer spiritual care skills, which leads to lower job satisfaction. The data obtained is cognitively interesting and important, especially in the context of working with the terminally ill in palliative care. It shows that the spirituality of palliative care workers has a beneficial effect on their competence and the quality of their work, and contributes to their sense of satisfaction and fulfilment. It is worth noting that these are important skills in palliative care especially in close relationships with the patients and with their loved ones, at the most critical moments in their lives. If the results indicate the essence and positive aspects of these characteristics, it seems necessary to offer interpersonal training, including in interpersonal skills, compassion and spiritual competencies in order to raise awareness that these skills will allow us to take care not only of the sick and their loved ones, but also, as a result, of the wellbeing of employees. This may result also in an improvement of the quality of the care provided, higher satisfaction among the patients and their families, as well as higher work satisfaction and lower risk of costs linked to helping, such as the related burnout.

AUTHOR CONTRIBUTIONS
Research concept: Dagna Kocur, Dariusz Krok, Małgorzata Fopka-Kowalczyk
Research methodology: Dagna Kocur, Dariusz Krok, Małgorzata Fopka-Kowalczyk
Collecting material: Aleksandra Żenda
Statistical analysis: Dariusz Krok
Interpretation of results: Dagna Kocur, Dariusz Krok, Małgorzata Fopka-Kowalczyk
References: Dagna Kocur, Aleksandra Żenda

REFERENCES

1. Best M, Leget C, Goodhead A, Paal P. An EAPC white paper on multi-disciplinary education for spiritual care in palliative care. BMC Palliat Care. 2020;19(1):9. https://doi.org/10.1186/s12904-019-0508-4.
2. Willemse S, Smeets W, van Leeuwen E, Nielen-Rosier T, Janssen L, Foudraine N. Spiritual care in the intensive care unit: an integrative literature research. J Crit Care. 2020;57:55–78. https://doi.org/10.1016/j.jcrc.2020.01.026.
3. Burkhart L, Hogan N. An experiential theory of spiritual care in nursing practice. Qual Health Res. 2008;18(7):928–938. https://doi.org/10.1177/1049732308318027.
4. Fopka-Kowalczyk M, Best M, Krajnik M. *The Spiritual Supporter Scale* as a new tool for assessing spiritual care competencies in professionals: design, validation, and psychometric evaluation. J Relig Health. 2023;62(3):2081–2111. https://doi.org/10.1007/s10943-022-01608-3.
5. Davalos-Batallas V, Vargas-Martínez AM, Bonilla-Sierra P, Leon-Larios F, Lomas-Campos MDLM, Vaca-Gallegos SL, et al. Compassionate engagement and action in the education for health care professions: a cross-sectional study at an Ecuadorian university. Int J Environ Res Public Health. 2020;17(15):5425. https://doi.org/10.3390/ijerph17155425.
6. Kluit L, de Wind A, Oosting IJ, van Velzen JM, Beumer A, Sluman MA, et al. Current practices, needs, and expectations of discussing work with a medical specialist from a patient's perspective: a qualitative study. Disabil Rehabil. 2024;46(1):115–128. https://doi.org/10.1080/09638288.2022.2157500.
7. Büssing A, Pilchowska I, Surzykiewicz J. Spiritual needs of Polish patients with chronic diseases. J Relig Health. 2015;54(4):1524–1542. https://doi.org/10.1007/s10943-014-9863-x.
8. O'Callaghan C, Brooker J, de Silva W, Glenister D, Melia A, Symons X, et al. Patients' and caregivers' contested perspectives on spiritual care for those affected by advanced illnesses: a qualitative descriptive study. J Pain Symptom Manage. 2019;58(6):977–988. https://doi.org/10.1016/j.jpainsymman.2019.08.004.

9. Levison C, editor. Spiritual Care Matters: An Introductory Resource For All NHSScotland Staff [Internet]. Edinburgh: NHS Education for Scotland; 2009 [cited 2025 Mar 6]. Available from: https://www.nes.scot.nhs.uk/media/23nphas3/spiritualcaremattersfinal.pdf.
10. Leget C. Art of Living, Art of Dying: Spiritual Care for a Good Death. London–Philadelphia: Jessica Kingsley Publishers; 2017.
11. Krakowiak P, Fopka-Kowalczyk M. Włączanie wymiaru duchowego w działania pracowników socjalnych przez adaptację narzędzia do badania potrzeb duchowych. In: Bojanowska E, Kawińska M, editors. Praca socjalna wobec wyzwań współczesności. Warszawa: Kontrast; 2015. p. 55–68.
12. World Health Organization [Internet]. Geneva: WHO; 2025 [cited 2025 Mar 6]. Palliative care. Available from: https://www.who.int/health-topics/palliative-care.
13. Bickford B, Daley S, Sleater J, Hebditch M, Banerjee S. Understanding compassion for people with dementia in medical and nursing students. BMC Med Educ. 2019; 19(1):1–8.
14. Juchnowicz M. Elastyczne zarządzanie kapitałem ludzkim w organizacji wiedzy. Warszawa: Wydawnictwo Difin S.A.; 2007.
15. Groves R, Klauser HA. The American Book of Living and Dying: Lessons in Healing Spiritual Pain. Berkeley: Celestial Arts; 2009.
16. Büssing A, Janko A, Baumann K, Hvidt NC, Kopf A. Spiritual needs among patients with chronic pain diseases and cancer living in a secular society. Pain Med. 2013;14:1362–1373. https://doi.org/10.1111/pme.12198.
17. Costeira C, Querido A, Ventura F, Loureiro H, Coelho J, Benito E, et al. Spiritual Care [Givers] competence in palliative care: a scoping review. Healthcare. 2024;12:1059. https://doi.org/10.3390/healthcare12111059.
18. Addington-Hall JM, Karlsen S. A national survey of health professionals and volunteers working in voluntary hospices in the UK. II. Staff and volunteers' experiences of working in hospices. Palliat Med. 2005;19(1):49–57. https://doi.org/10.1191/0269216305pm931oa.
19. Manookian A, Nadali J, Ghiyasvandian S, Weaver K, Haghani S, Divani A. Spiritual care competence, moral distress and job satisfaction among Iranian oncology nurses. Int J Palliat Nurs. 2023;29(10):487–497. https://doi.org/10.12968/ijpn.2023.29.10.487.
20. Newmeyer M, Keyes B, Palmer K, Kent V, Spong S, Stephen F, et al. Spirituality and religion as mitigating factors in compassion fatigue among trauma therapists in Romania. J Psychol Theol. 2016;44(2):142–151. https://doi.org/10.1177/009164711604400205.
21. Centre for New Dimension Leadership [Internet]. Abuja: The Centre; 2025 [cited 2025 Mar 6]. Understanding spiritual perception. Available from: https://centrendl.org/blog/understanding-spiritual-perception/.
22. Bayer N, Gürsel G. Examining the relation between spiritual care and job satisfaction in nurses: an empirical study. J Soc Anal Health. 2022;2(1):1–7. https://doi.org/10.5281/zenodo.6342665.
23. Wai M, Tiliopoulos N. The affective and cognitive empathic nature of the dark triad of personality. Pers Individ Dif. 2012;52(7):794–799. https://doi.org/10.1016/j.paid.2012.01.008.
24. Kaufman SB, Yaden DB, Hyde E, Tsukayama E. The light vs. dark triad of personality: contrasting 2 very different profiles of human nature. Front Psychol. 2019;10:467. https://doi.org/10.3389/fpsyg.2019.00467.
25. Lee SA, Gibbons JA. The dark triad and compassion: psychopathy and narcissism's unique connections to observed suffering. Pers Individ Dif. 2017;116:336–342. https://doi.org/10.1016/j.paid.2017.05.010.
26. Sharpe EE, Schofield MB, Roberts BL, Kamal A, Maratos FA. Exploring the role of compassion, self-criticism and the dark triad on obesity and emotion regulation. Curr Psychol. 2023;43:11972–11982. https://doi.org/10.1007/s12144-023-05319-0.
27. Kumpasoğlu GB, Eltan S, Merdan-Yıldız ED, Batıgün AD. Mediating role of life satisfaction and death anxiety in the relationship between dark triad and social media addiction. Pers Individ Dif. 2021;172:110606. https://doi.org/10.1016/j.paid.2020.110606.
28. Aghababaei N, Błachnio A. Well-being and the dark triad. Pers Individ Dif. 2015;86:365–368. https://doi.org/10.1016/j.paid.2015.06.043.
29. Jonason PK, Wee S, Li NP. Competition, autonomy, and prestige: mechanisms through which the dark triad predict job satisfaction. Pers Individ Dif. 2015;72:112–116. https://doi.org/10.1016/j.paid.2014.08.026.
30. Čopková R, Araňošová A. The relationship of dark triad and job satisfaction among helping professionals. Indiv Soc. 2020;23(3):18–33. https://doi.org/10.31577/cas.2020.03.574.
31. Overton SC. Personality traits in the workplace: examining the light triad and its relationship with job satisfaction [dissertation]. Murray: Murray State University; 2022.
32. Maralov VG, Maralova TP. The role of psychological capital in the development of the dark and light triad of personality traits in university students. Educ Pedag J. 2024;(2):36–52.
33. Bonfá-Araujo B, Lima-Costa AR, Baptista MN, Hauck-Filho N. Depressed or satisfied? The relationship between

the dark triad traits, depression, and life satisfaction. Curr Psychol. 2023;42(5):3520–3527. https://doi.org/10.1007/s12144-021-01726-3.
34. Yildirim JG, Ertem M. Professional quality of life and perceptions of spirituality and spiritual care among nurses: relationship and affecting factors. Perspect Psychiatr Care. 2022;58(2):438–447. https://doi.org/10.1111/ppc.12794.
35. Chochinov H. Dignity-conserving care – a new model for palliative care: helping the patient feel valued. JAMA. 2002;287:2253–2260.
36. Fopka-Kowalczyk M. Narzędzia do badania potrzeb duchowych i techniki interwencji duchowych. In: Ciałkowska-Rysz A, Dzierżanowski T, editors. Medycyna paliatywna. Poznań: Termedia; 2025. p. 496–498.
37. Bulut TY, Çekiç Y, Altay B. The effects of spiritual care intervention on spiritual well-being, loneliness, hope and life satisfaction of intensive care unit patients. Intensive Crit Care Nurs. 2023;77:103438. https://doi.org/10.1016/j.iccn.2023.103438.
38. Fopka-Kowalczyk MJ, Krok D, Kocur D. Spiritual care, compassion for others and light triad among clergy, social workers and hospice staff. Palliat Med Pract. 2024;18(3):124–132. https://doi.org/10.5603/pmp.98543.
39. Gerymski R, Krok D. Psychometric properties and validation of the Polish adaptation of *The Light Triad Scale*. Curr Issues Pers Psychol. 2019;7(4):341–354. https://doi.org/10.5114/cipp.2019.92960.
40. Jonason PK, Webster GD. The Dirty Dozen: a concise measure of the dark triad. Psychol Assess. 2010;22(2):420–432. https://doi.org/10.1037/a0019265.
41. Diener E, Emmons RA, Larsen RJ, Griffin S. *The Satisfaction with Life Scale*. J Pers Assess. 1985;49(1):71–75. https://doi.org/10.1207/s15327752jpa4901_13.
42. Zalewska AM. *The Satisfaction with Job Scale* – a measure of cognitive aspect of overall job satisfaction. Acta Univ Lodz Folia Psychol. 2003;7:49–61.
43. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. Behav Res Methods. 2009;41(4):1149–1160. https://doi.org/10.3758/BRM.41.4.1149.
44. Hayes AF. Introduction to mediation, moderation, and conditional process analysis: a regression-based approach. New York: Guilford Publications; 2018.
45. Chung LYF, Wong FKY, Chan MF. Relationship of nurses' spirituality to their understanding and practice of spiritual care. J Adv Nurs. 2007;58(2):158–170. https://doi.org/10.1111/j.1365-2648.2007.04225.x.
46. Puchalski CM. The role of spirituality in health care. Proc (Bayl Univ Med Cent). 2001;14(4):352–357. https://doi.org/10.1080/08998280.2001.11927788.
47. Stelcer B, Bilski B. Zjawiska stresu i wypalenia zawodowego w opiece paliatywnej. Med Pr Work Health Saf. 2020;71(1):69–78. https://doi.org/10.13075/mp.5893.00852.
48. Stanetić K, Tešanović G. Influence of age and length of service on the level of stress and burnout syndrome. Med Pregl. 2013;66(3–4):153–162. https://doi.org/10.2298/MPNS1304153S.
49. Bang H, Reio TG Jr. Examining the role of cynicism in the relationships between burnout and employee behavior. Rev Psicol Trab Organ. 2017;33(3):217–227. https://doi.org/10.1016/j.rpto.2017.07.002.
50. Barlett CP, Barlett ND. The young and the restless: examining the relationships between age, emerging adulthood variables, and the dark triad. Pers Individ Dif. 2015;86:20–24. https://doi.org/10.1016/j.paid.2015.05.024.

This work is available in Open Access model and licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) – https://creativecommons.org/licenses/by/4.0/.

Publisher: Nofer Institute of Occupational Medicine, Łódź, Poland