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# Compassion fatigue and compassion satisfaction among psychologists: Can supervision and a reflective stance be of help?

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**Abstract:** The pleasure derived from helping others is referred to as compassion satisfaction (CS). When a psychologist feels a too heavy demand to be compassionate and effective in helping, however, this may result in compassion fatigue (CF). CF may take the form of burnout or secondary traumatic stress (STS). The present paper focuses on two factors that may possibly protect against the development of CF, and facilitate the development of CS: (1) access to supervision and (2) a reflective stance. An online survey was distributed to two closed Swedish Facebook groups of psychologists, and complete data were obtained from 374 psychologists (320 women and 63 men). Both variable-oriented and person-oriented analyses were carried out. Correlational analysis showed that both supervision and reflection was associated with more CS, whereas only supervision but not reflection was significantly associated with less CF. Cluster analysis gave a more nuanced picture, suggesting a non-linear and multi-faceted association between reflection and CF. Some clusters of psychologists showed the expected association between level of reflection and level of CF. This was balanced, however, by other clusters that showed an association in the opposite direction, indicating high levels of reflection in clinicians with high levels of CF, and low levels in clinicians with low levels of CF. The results are discussed in terms of these differences in associative patterns possibly being due to different patient populations being involved. Among the limitations of the present study are its cross-sectional design, absence of data on patient characteristics, and a crude measure of supervision and reflection.

**Keywords:** Compassion fatigue, compassion satisfaction, supervision, reflective stance

When psychologists listen to patients' experiences of trauma, anxiety, pain, depression, or some other kind of distress, with an intention to understand the suffering of these patients and to be of help for them, they will often tend to feel these emotions themselves to some degree. This kind of emotional contagion is a basic characteristic of human psychological functioning, and also a basic constituent of the empathic concern and compassion that lies at the root of human helping behavior.

Compassion has been defined in terms of "awareness of the suffering of another coupled with the wish to relieve it" (Figley & Ludick, 2017, p. 574), and as "a kind of focused, action-oriented empathy" (p. 574). When a psychologist or other helper feels a demand to be compassionate and effective in helping that goes beyond his or her spontaneous resources for being of help this may result in compassion stress. If this stress increases to such an extent that it leads to exhaustion (or burnout) and the erosion of compassion, it is referred to as *compassion fatigue* (Figley, 1995; Figley & Ludick, 2017).

The concept of compassion fatigue (CF) has been in use since 1992, when Joinson (1992) used the term to describe the experience of nurses who were worn down by the stress of attending to daily hospital emergencies, and Kottler (1992) emphasized the importance of compassion in dealing with particularly challenging patients. Two closely related concepts are those of secondary traumatic stress (STS; Solomon, 1988) and vicarious traumatization (Pearlman & Saakvitne, 1995). Although these terms refer more explicitly to traumas and traumatization than the concept of CF

does, the phenomena that are referred to seem to be rather similar. In Stamm's (2010) conceptualization, however, CF is seen as consisting of two components: STS and burnout.

On a more positive note, clinicians who work with suffering patients may also experience *compassion satisfaction*. Compassion satisfaction (CS) is defined as the amount of pleasure derived from helping others (Stamm, 2005), and has been found to correlate positively with resilience, that is, the ability to cope, learn and grow from difficult experiences (Burnett & Wahl, 2015). CS and CF, however, do not seem to correlate negatively in any simple linear way, but may coexist (Barr, 2017). For example, according to Bride, Radey and Figley (2007), "a clinician may experience both compassion fatigue and compassion satisfaction simultaneously, though as compassion fatigue increases it may overwhelm the clinician's ability to experience compassion satisfaction" (p. 156). Stamm (2010) describes a pattern where high CS is combined with high scores on one of the CF components (STS) and low scores on the other (burnout); according to her, this pattern is typically seen in clinicians who work in high-risk situations and are "highly effective at their work because they feel that their work matters", but at the same time experience strong fear because of their engagement.

A wide range of variables have been found to be associated with higher CF, including female gender (Mangoulia, Koukia, Alevizopoulos, Fildissis, & Katostaras, 2015; Mooney, Fetter, Gross, Rinehart, Lynch, & Rogers, 2017; Sprang, Clark, & Whitt-Woosley, 2007), lower age (Berger, Polivka, & Smoot, 2015; Craig & Sprang, 2010; Mooney et al., 2017; Sprang et al., 2007), and less clinical experience (Kolthoff & Hickman, 2017; Mangoulia et al., 2015; Mooney et al., 2017; Ray, Wong, White, & Heaslip, 2013; Sprang et al., 2007). As to CS, research indicates that it may be higher among older professionals (Berger et al., 2015; Sprang et al., 2007), among professionals with longer clinical experience (Berger et al., 2015), and among those who have received specialized trauma training (Craig & Sprang, 2010; Linley & Joseph, 2007; Sprang et al., 2007).

How is it possible to decrease the risk for compassion fatigue, and to facilitate the development of compassion satisfaction? One prominent suggestion is that clinicians need to rely on self-care strategies as a protection from the deleterious effects of empathic engagement. Examples of such self-care practices mentioned by Figley and Ludick (2017) are "eating regularly and healthily, getting sufficient exercise, spending time in nature, getting enough sleep" (p. 582) as well as "[d]eveloping interests and an identity outside of the work domain" (p. 582). This approach is based on the assumption that clinicians "need to cultivate and create a fulfilling personal life as a positive counterpoint to their work" (p. 582).

As an alternative or complement to the self-care approach, Miller and Sprang (2017) outlines an approach that focuses on skills during clinical practice that may protect clinicians from compassion fatigue. They list five catego-

ries of such skills: (1) experiential engagement, defined as "a cluster of skills used by the therapist to establish, balance, and maintain a connection to a client and the client's experience and to acknowledge and experience the feelings that arise as a result of this engagement" (p. 154), so that emotions can be metabolized; (2) regulating rumination, so that a repetitive processing of events does not detract from the metabolizing of emotions that may occur through experiential engagement; (3) developing a conscious narrative about the clinical work being done; (4) reducing emotional labor by communicating authentically; and (5) skills for parasympathetic recovery during the workday. An important aspect of their model is also that this may be "facilitated greatly by a regular supervision process focused on reflection about the effect of the work on the therapist" (p. 158)

The importance of clinical supervision and reflection about the clinician's emotional experiences in relation to clients is emphasized in many forms of psychotherapy. In psychoanalytic tradition, this is often referred to under the heading of countertransference. Freud (1910) observed that the therapist may sometimes respond emotionally to the patient in a way that can interfere with the treatment, and named it "countertransference". Originally, this was assumed to be due to unresolved issues in the therapist's past experiences with significant others. Later psychoanalysts and psychotherapists, however, have broadened the focus, recognizing that the therapist's reactions to the patient may, in fact, also carry important information about the kind of responses which the client tends to evoke in others, and can thereby be used to facilitate treatment. This means that the concept of "countertransference" has shown a drift in meaning, from Freud's original conceptualization (which saw countertransference as a threat to the treatment) to modern conceptualizations (which see it also as a source of information about the patient), and to models that integrate both of these aspects (Gabbard, 2001). The important thing for the present purposes is that, wherever these emotional processes may have their roots, *reflection* about these emotional processes in combination with clinical supervision may be assumed to be important both for the quality of the treatment and for the clinician's well-being.

In the cognitive-behavioral tradition, the importance of reflection on, and analysis of the emotional aspects of the therapeutic relationship is emphasized especially in treatments that focus on patients with severe personality disorders and other interpersonal problems that may be expressed in the therapeutic relationship. In dialectical behavior therapy (Linehan, 1993), for example, the therapists are part of a consultation team who meet regularly to help one another and manage the high stress and potential burnout that may result from treating clients at high risk for suicide.

The present study focuses on these two factors: clinical supervision, and reflection about emotional experiences in relation to clients. There is little research done on these topics. With regard to clinical supervision, Linley and Jo-

seph (2007) found that therapists who had formal supervision reported more personal growth than those who did not have supervision; however, they found no significant effects on compassion fatigue or compassion satisfaction. Other research, however, has documented that the perceived quality of clinical supervision is associated with less emotional exhaustion among counsellors who work with patients suffering from substance use disorders (Knudsen, Ducharme, & Roman, 2008; Knudsen, Roman, & Abraham, 2013). Peled-Avram (2017) also found that social workers who reported receiving a more relational-oriented supervision and evaluated their supervision as more effective had lower levels of vicarious traumatization.

### The present study

The purpose of this study was to investigate how the availability of supervision/collegial support (from now on referred to as "supervision") and the degree and the perceived importance of reflection about relational processes (together referred to as a reflective stance, or "reflection") are associated with compassion fatigue (CF) and compassion satisfaction (CS) among psychologists. This question was approached not only in terms of associations between individual variables, but also and primarily in terms of person-oriented analyses of patterns of values on these variables.

In terms of individual variables, it was hypothesized that both supervision and reflection are associated with less of CF and more of CS. In terms of patterns, it was hypothesized that the *combination* of a good availability of supervision and the use of a reflective stance is the most beneficial pattern, whereas the combination of poor availability of supervision with little reflection is the worst pattern (best and worst being measured in terms CF and CS).

In addition, patterns of CF and CS were analyzed for their associations with supervision and reflection. Here it was expected that the analysis would identify the patterns described by Stamm (2010): (1) high CS combined with moderate to low CF; (2) low CS combined with high CF; (3) high burnout combined with moderate to low CS and STS; (4) high STS combined with low CS and burnout; and (5) high CS and high STS combined with low burnout. It was also expected that the high CS/low CF pattern, which is described by Stamm (2010) as the most beneficial combination, would be most clearly associated with a good availability of supervision and a reflective stance. Conversely, it was expected that the combination of low CS and high CF, which is described by Stamm (2010) as the most distressing combination, would be associated with a poor availability of supervision and little reflection.

## Method

### Design and procedure

The study used a cross-sectional survey design, with a questionnaire constructed in the digital tool Sunet (Swedish University computer Network) and administered during one week over the Internet on two closed Swedish Facebook groups: *Psykologer* (with around 6500 members who are licensed psychologists) and *PTP-psykologer* (with around 1500 members, who are not yet licensed but are doing their practice [PTP] to receive their license).

### Participants

The participants were 384 psychologists (320 women and 63 men); 44.5% of them were 20-34 years old, and 47.9% were 35-54 years old. All participants reported that they had contact with patients suffering from mental ill-health as part of their work; 46,6% reported that they had 0-5 years of experience; 24,2 % reported 6-10 years of experience; 15,1% reported 11-15 years of experience; 8,9% reported 16-25 years of experience; and 5.2% reported more than 25 years of experience.

### Instruments

The questionnaire contained 100 questions, and included both standardized psychometric instruments and some questions that were constructed specifically for the present study. The first page of the questionnaire provided information about the purpose of the study, contact information to the researchers, and informed the participants that they were anonymous, and that they were free to interrupt their participation at any time.

**The Professional Quality of Life scale, version 5** (ProQOL; Stamm, 2010) is a 30-item instrument using a five-point Likert-type scale from 1 (never) to 5 (very often) that yields composite scores on the three subscales: Compassion Satisfaction, Burnout, and Secondary Traumatic Stress. A score on Compassion Fatigue is computed by summarizing the scores on Secondary Traumatic Stress and Burnout. Good reliability and validity has been established (Stamm, 2010). Although Stamm (2010) provides cut-offs for high and low values on the ProQOL scales, she strongly suggests that the continuous scores should be used, and she also advises against using ProQOL for diagnostic purposes. The Swedish translation was made by Gerge (2011).

The *Compassion Satisfaction* subscale contains ten items. Examples of items are "I get satisfaction from being able to help people", "I feel invigorated after working with those I help", "I have happy thoughts and feelings about those I help and how I could help them", and "I believe I can make a difference through my work". No items are reversed. Cronbach's *alpha* in the present study was .90.

The *Burnout* subscale also contains ten items. Examples of items are "I feel trapped by my job as a helper", "I feel worn out because of my work as a helper", "I feel overwhelmed because my case load seems endless", and "I feel connected to others" (reversed). Four items on this subscale are reversed before summarizing the total score. Cronbach's *alpha* in the present study was .75.

The *Secondary Traumatic Stress* subscale contains ten

items. Examples of items are "I jump or am startled by unexpected sounds", "I find it difficult to separate my personal life from my life as a helper", "I think that I might have been affected by the traumatic stress of those I help", and "I feel depressed because of the traumatic experiences of the people I help". No items are reversed. Cronbach's *alpha* in the present study was .74.

**Supervision and a reflective stance.** Availability of supervision was measured by the participants' responses to the item "I have access to supervision and collegial support where I can get emotional relief in relation to my work, in case I would need it." A reflective stance was measured by the following two items: "I reflect actively about how I am influenced emotionally in the meeting with clients", and "I feel that what is evoked in me emotionally in the meeting with clients can be useful information in treatment." All three of these items were rated on a 5-grade Likert scale, ranging from 1 (never) over 2 (seldom), 3 (sometimes), 4 (often), to 5 (very often).

The questionnaire also contained a number of other psychometric scales, the results on which have been reported elsewhere (Dehlin, 2017; Sandberg, 2017).

## Statistical analyses

Cluster analysis was used to identify groups of participants with similar profiles of scores, first on the supervision/reflection variables, and then on the ProQOL variables. The cluster analyses were carried out in four steps in accordance with the LICUR procedure (Bergman, Magnusson, & El-Khouri, 2009), by means of the statistical software ROPstat (Varga, Torma, & Bergman, 2015). First, multivariate outliers were identified by means of a residue procedure and removed from further analysis. Second, Ward's hierarchical clustering method was applied. Four criteria described by Bergman et al. (2009) were used to decide on the optimal cluster solution: (a) theoretical meaningfulness of the cluster solution; (b) a cluster solution with $k$ clusters is preferable to one with $k$-1 if a sharp decrease in explained error sum of squares (EESS) occurs between the solution with $k$ clusters and the one with $k$-1 clusters; (c) the number of clusters should not be more than 15 and should not be expected to be less than five; (d) the size of the EESS for the chosen cluster solution should preferably

not be less than 67% and at the very least exceed 50%. In addition, the homogeneity coefficient of each cluster should preferably be <1. Third, a data simulation was undertaken to verify that the EESS was higher than what could be expected on a random data set with the same general properties as the data set used in the real analysis. Fourth, a non-hierarchical relocation procedure was carried out in order to improve the homogeneity of the clusters and to increase the variance explained by the cluster solution.

## Results

From the total number of participants (n=384), 10 individuals were excluded because they had indicated that the questions about supervision/collegial support and/or reflection were not relevant to them. This means that 374 individuals remained for statistical analyses.

## Descriptive data

Table 1 shows descriptive data on the ProQOL variables. Comparison by independent samples *t*-test showed only one difference between genders: women reported higher scores than men on STS, $t(371) = 1.52$, $p < .05$. As to age, CS showed a weak positive correlation with age, $rho = .11$, $p < .05$. Similarly, years of clinical experience showed a weak positive correlation with CS, $rho = .16$, $p < .01$.

Table 1 also shows descriptive data on the supervision and reflection variables. There were no gender differences on these variables. Age correlated negatively with the availability of supervision, $rho = -.12$, $p < .05$, but positively with perceived relevance of reflection, $rho = .13$, $p < .05$. Years of clinical experience also correlated positively, $rho = .16$, $p < .01$, with perceived relevance of reflection.

Because there are several versions of ProQOL, with different response formats (for example, previous versions have used a 6-scale Likert format from 0 to 5, rather than the 5-point format from 1 to 5 which is used by ProQOL version 5), results should be compared only between studies that use the same version. Table 2 shows a comparison with three other studies that have used ProQOL version 5. Although the psychologists in the present study scored slightly lower on CS than the nurses in these three studies, they did not differ much on the burnout and STS scales.

Table 1. *Descriptive data on the ProQOL variables, and the supervision and reflection variables.*

|  | M (SD) | Women | Men |
| --- | --- | --- | --- |
| Compassion Satisfaction | 37.1 (5.8) | 37.3 (5.8) | 36.7 (5.7) |
| Burnout | 23.8 (4.8) | 23.7 (4.8) | 24.1 (4.8) |
| Secondary Traumatic Stress | 20.6 (5.2) | 20.9 (5.4) | 19.4 (4.4) |
| Availability of supervision/collegial support | 3.3 (1.0) | 3.3 (1.0) | 3.3 (1.1) |
| Reflection | 3.7 (0.8) | 3.7 (0.8) | 3.8 (0.9) |
| Relevance of reflection | 3.7 (0.9) | 3.7 (0.8) | 3.6 (1.2) |

Table 2. *Comparison with three other studies that have used the ProQOL version 5 in other populations.*

| Study | Participants | CS | Burnout | STS |
|---|---|---|---|---|
| Wu et al. (2016) | Oncology nurses (N=486; US) | 42.4 (5.3) | 22.7 (5.7) | 22.7 (5.8) |
| Mooney et al (2017) | Nurses in an intensive care unit (N=68; US) | 38.3 (6.1) | 25.5 (5.9) | 20.5 (6.1) |
| Kolthoff et al (2017) | Geriatric nurses (N=42; US) | 37.4 (5.2) | 26.7 (6.1) | 23.0 (6.2) |

Table 3. *Correlations between the compassion scales and the availability of supervision/ collegial support and aspects of a reflective stance.*

| | CF | Bu | STS | CS |
|---|---|---|---|---|
| Availability of supervision/collegial support | -.27** | -.40** | -.08 | .32** |
| Reflection | -.00 | -.13 | .12 | .23** |
| Relevance of reflection | -.01 | -.13 | .10 | .32** |

$* p < .05/12 = .0041$; $** p < .01/12 = .0008$

*Note*. CF = Compassion fatigue; Bu = Burnout; STS = Secondary Traumatic Stress; CS = Compassion Satisfaction.

## Correlations between the ProQOL variables and the supervision/reflection variables

Of the ProQOL variables, CS correlated strongly negatively with burnout, $r = -.65$, $p<.001$, and weakly negatively with STS, $r = -.13$, $p<.05$. Burnout correlated $r = .46$, $p<.001$ with STS. The two aspects of reflective stance showed a moderate to strong positive intercorrelation ($r = .49$), but none of them showed any significant correlation with access to supervision ($r = .10$ and $r = .04$).

As seen in Table 3, CF showed a negative correlation with the availability of supervision, although it showed no significant correlation with the measures of a reflective stance. CS, on the other hand, showed significant positive correlations both with access to supervision and with the two aspects of a reflective stance. Of the two components of CF, only burnout showed significant correlations with supervision. It may also be noted that, with regard to the reflection variables, burnout and STS showed weak correlations in opposite directions – whereas both reflection variables tended to correlate weakly negatively with burnout they tended to show weak positive correlations with STS.

## The first cluster analysis: Patterns of supervision and reflection

No outliers were identified. Ward's hierarchical method resulted in a 5-cluster solution that explained 58.5% of the variance (ESS). After the use of Wishart's non-hierarchical relocation procedure, the EES increased to 61.3. All homogeneity coefficients were below 1.0, ranging between 0.36 and 0.96. Figure 1 shows the five profiles of these clusters in terms of the *z*-scores of each cluster. To describe the clusters, we will use the following conventions: When $z > 1$, this is referred to as a very high score, and when $z < -1$ this is referred as a very low score. A *z*-score between 0.5 and 1 is referred to as a moderately high score, and one between -0.5 and -1 is referred to as a moderately low score. Z-scores between -0.5 and 0.5 are referred to as about average scores.

The largest cluster was Cluster 1 (n = 93), which was characterized by moderately low scores both on supervision/collegial support and on aspects of reflective stance; this was labeled the *Low Supervision/Low Reflection* cluster. Three other clusters were almost equally large: Cluster 2 (*n* = 78); Cluster 3 (*n* = 84); and Cluster 4 (*n* = 85). Cluster 2 had moderately high scores on supervision/collegial support and on reflection, and average scores on relevance of reflection; this was labeled the *High Supervision/Average Reflection* cluster. Cluster 3 had moderately low scores on supervision/collegial support and moderately high scores on the reflection items, and was labeled the *Low Supervision/High Reflection* cluster. Cluster 4 had moderately high scores on supervision/collegial support, very low scores on reflection, and average scores on relevance of reflection, and was labeled the *High Supervision/Low Reflection* cluster. Finally, there was a smaller cluster (Cluster 5; *n* = 34), with high scores on supervision in combination with very high scores on aspects of a reflective stance; this was labeled the High Supervision/High Reflection cluster.

## Comparison between the supervision/reflection clusters on the ProQOL variables

The clusters were compared by means of a series of one-way ANOVAs on the ProQOL variables. As seen in Table 4, the two low supervision clusters (low supervision/low reflection, and low supervision/high reflection) scored higher on CF than two of the high supervision clusters (high supervision/average reflection and high supervision/low reflection). Of the two CF subscales, these differences were even more pronounced on the Burnout scale; here the two low supervision clusters scored significantly lower than most of the high supervision clusters. On the STS scale, however, the differences were small, and the post hoc tests showed no significant differences.

As to CS, the low supervision/low reflection cluster scored lower than all the other clusters; in addition, the high supervision/low reflection cluster scored significantly lower than the high supervision/high reflection cluster and the high supervision/average reflection clusters.
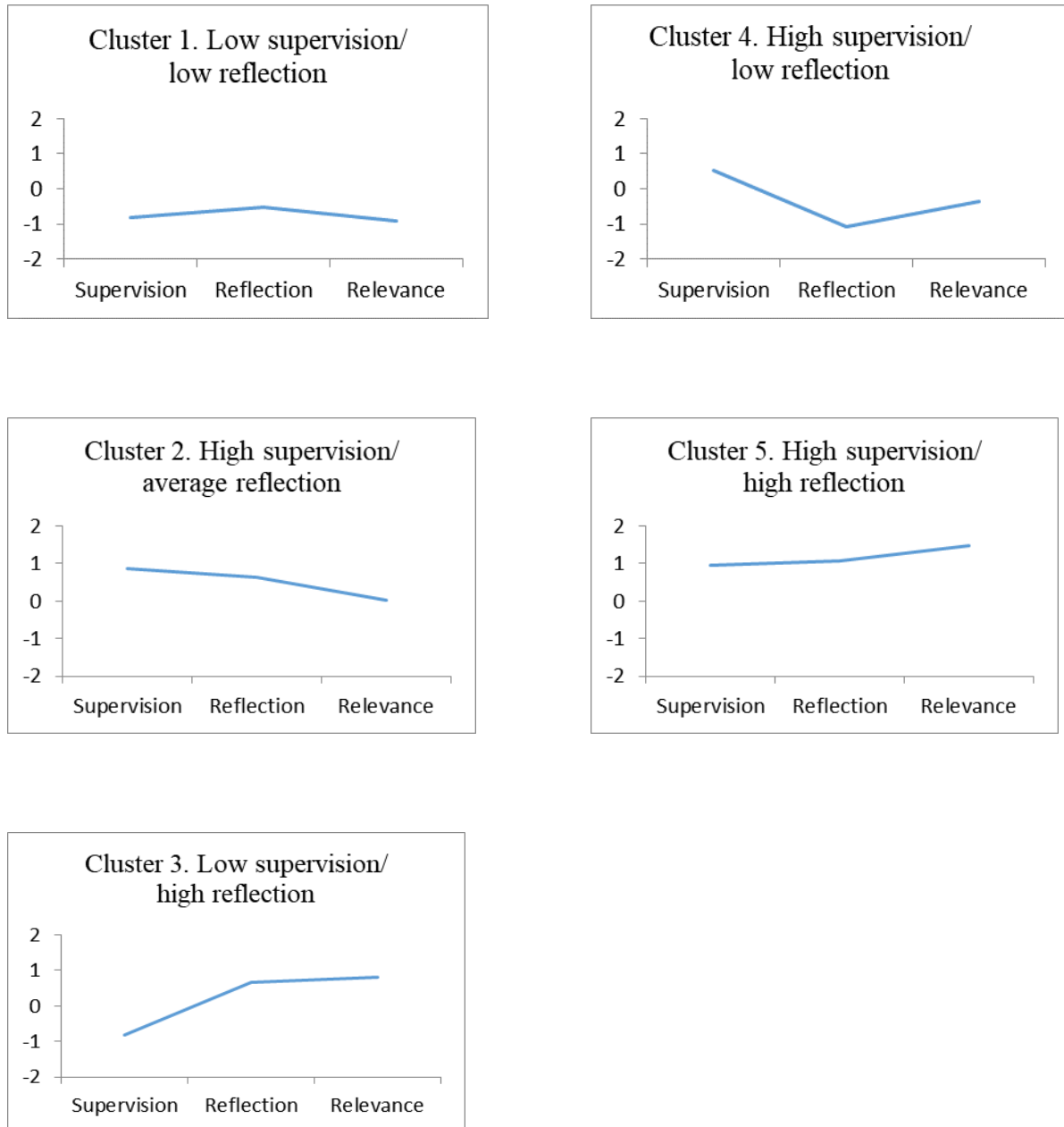
Figure 1. The five-cluster solution on the supervision and reflection variables, described in terms of z-scores.

Table 4. *Comparison of the supervision/reflection clusters on the ProQOL scales by one-way ANOVA.*

|  | 1. Low Sup/ Low Refl M(SD) | 2. High Sup/ Average Refl M(SD) | 3. Low Sup/ High Refl M(SD) | 4. High Sup/ Low Refl M(SD) | 5. High Sup/ High Refl M(SD) | Comparison by ANOVA $F_{(4,374)}$ | Tukey Post hoc test |
|---|---|---|---|---|---|---|---|
| CF | 46.9 (8.9) | 41.4 (7.3) | 46.6 (8.8) | 42.8 (7.9) | 43.3 (9.2) | 6.94*** | 1,3>2,4 |
| Bu | 26 (4.2) | 21.4 (3.8) | 25 (5.1) | 23.3 (4.3) | 21.4 (5.2) | 15.69*** | 1>2,4,5; 3>2,5 |
| STS | 20.9 (6.1) | 20 (4.6) | 21.6 (5.1) | 19.6 (4.6) | 21.9 (5.3) | 2.42* |  |
| CS | 33.5 (5.4) | 39.5 (5.2) | 37.6 (5.6) | 37.1 (5.4) | 40.4 (4.8) | 17.42*** | 1<2,3,4,5; 4<2,5 |

* $p < .05$ **; $p < .001$***; $p < .0001$
*Note*. CF = Compassion fatigue; Bu = Burnout; STS = Secondary Traumatic Stress; CS = Compassion Satisfaction. Sup = Supervision; Refl = Reflection.

## The second cluster analysis: Patterns of compassion fatigue and satisfaction

Three outliers were identified. Ward's hierarchical method resulted in a 5-cluster solution that explained 67.8% of the variance (ESS). After the use of the relocation procedure, the EES increased to 70.1. All homogeneity coefficients were below 1.0, ranging between 0.49 and 0.89. Figure 2 shows the five profiles of these clusters in terms of the $z$-scores of each cluster.

Of the five CS/CF combinations described by Stamm (2010), approximations of three were found. The one that was most clearly identified was the combination of high CS with low CF, which was seen in Cluster 2 (n = 97) and was labeled the *Low CF/High CS* cluster. Cluster 1 (n = 70) approximated Stamm's (2010) description of a combination between low CS and high CF, although it was characterized by high scores only on one of the CF components (burnout), whereas the scores on STS were average; it was labeled the *High Burnout /Low CS* cluster. Cluster 5 (n = 79) also approximated one of Stamm's (2010) combinations (the high STS/low burnout/low CS combination) by showing a pattern of moderately high scores on both CS and STS, and average scores on burnout; it was labeled the *High STS /High CS* cluster.

The two remaining cluster did not correspond to any of Stamm's (2010) patterns. Cluster 3 (n = 100) had average scores on CS and burnout, and moderately low scores on STS; it was labeled the *Low STS/Average CS* cluster. Cluster 4 (n = 39) was the smallest and in some respects the most extreme cluster, with very high scores especially on STS but also on burnout, although they had average scores on CS; it was labeled the *High CF/Average CS* cluster.

## Comparison between CF/CS clusters on the supervision/reflection variables

The clusters were compared by means of a series of one-way ANOVAs on the supervision and reflection variables. As seen in Table 5, the High Burnout/Low CS cluster reported lower availability of supervision and a lower reflective stance than most other clusters (except the Low STS/Average CS cluster). The Low CF/High CS cluster had the highest score on supervision.

As to the use of reflection, the High Burnout/Low CS cluster scored lower than both of the high CS clusters, but also lower than the High CF/Average CS cluster. As to the relevance of reflection, both the High Burnout/Low CS cluster and the High STS/Average CS cluster scored lower than both of the high CS clusters, but also lower than the High CF/Average CS cluster.

Comparison between the clusters on the other variables showed no significant difference in age or gender, but a significant difference in years of clinical experience; Tukey post-hoc tests showed one significant difference between clusters: the *High STS/High CS* cluster had significantly longer clinical experience than the *High Burnout/Low CS* cluster.

## Cross-tabulation of the cluster solutions

To study possible associations between on the pattern level, the two cluster solutions were cross-tabulated, resulting in a table with 5 x 5 = 25 cells. The observed frequency in each cell was then compared with the frequency that would be expected by chance alone, and one-tailed probabilities were computed according to the fixed-margins model using EXACON (Bergman & El-Khouri, 1987) in ROPstat.

In accordance with hypotheses, the *Low* supervision/*Low* reflection cluster overlapped significantly more often than expected by chance with the Low CS/High Burnout cluster (observed in 33 participants, as compared with an expected number of 16.9 participants, $p < .0001$), and significantly less frequently than expected with the High CS/Low CF cluster (observed only in 9 participants, as compared with an expected number of 22.5 participants, $p < .0001$). Similarly, in accordance with the hypotheses, the *High* Supervision/*High* Reflection pattern was found to overlap significantly more often than expected by chance with the High CS/Low CF pattern (observed in 13 participants, as compared with an expected number of 8.4 participants, $p < .05$), and significantly less frequently than expected with the Low CS/High CF pattern (observed in 2 participants, as compared with an expected number of 6.3 participants, $p < .05$).

To explore other possible overlappings between supervision/reflection patterns and CS/CF patterns (i.e., for the 21 cells where we had no a priori hypotheses), Bonferroni correction was used to adjust the alpha level to $.10/21 = .0048$. On this criterion, statistically significant effects were found for two additional supervision/reflection patterns. First, the pattern of *High* Supervision/*Average* Reflection overlapped significantly more often than expected by chance with the High CS/Low CF pattern (observed in 30 participants, as compared with an expected number of 19.3 participants, $p = .0029$), and significantly less frequently than expected with the Low CS/High CF pattern (observed in 4 participants, as compared with an expected number of 14.5 participants, $p = .0003$). Second, the pattern of *Low* Supervision/*Low* reflection overlapped significantly less often than expected by chance with the High STS/High CS pattern (observed only in 8 participants, as compared with an expected 17.9 participants, $p = .0022$).
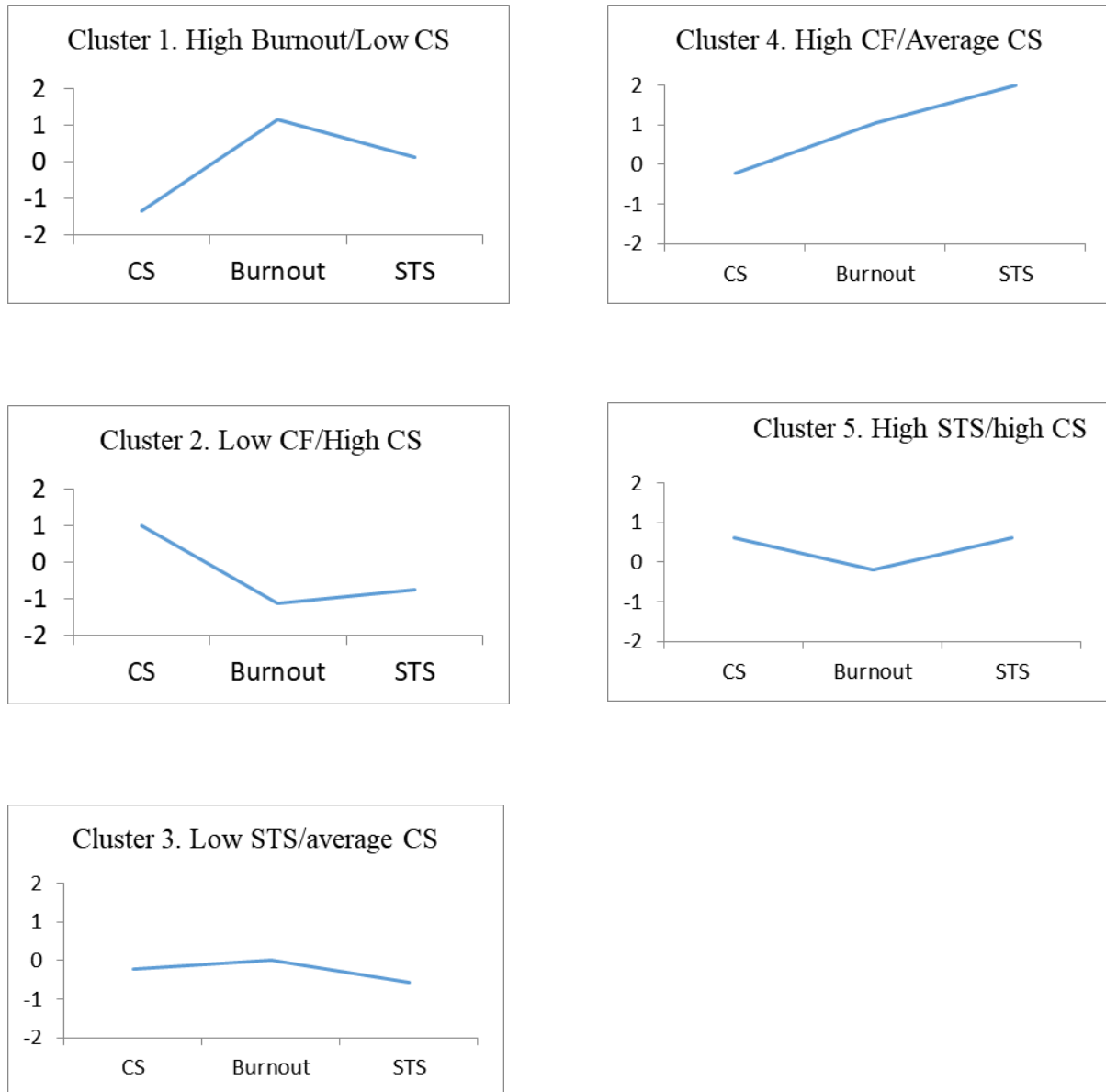
Cluster 1. High Burnout/Low CS



Cluster 4. High CF/Average CS



Cluster 2. Low CF/High CS



Cluster 5. High STS/high CS



Cluster 3. Low STS/average CS

*Figure 2.* The five-cluster solution on the ProQOL variables, described in terms of z-scores.

Table 5. *Comparison of the ProQOL clusters on the supervision and reflection variables by one-way ANOVA.*

| | 1. High Bu/ Low CS | 2. Low CF/ High CS | 3. Low STS/ Average CS | 4. High CF/ Average CS | 5. High STS/ High CS | Comparison by ANOVA | Tukey post hoc test |
|---|---|---|---|---|---|---|---|
| | M (SD) | M (SD) | M (SD) | M (SD) | M (SD) | F(4,374) | |
| Supervision | 4.76 (0.89) | 5.66 (0.94) | 5.33 (0.92) | 5.13 (1.06) | 5.57 (0.96) | 11.10*** | 1<2,3,5;2>4 |
| Reflection | 4.46 (0.86) | 4.86 (0.88) | 4.60 (0.77) | 4.97 (0.81) | 4.88 (0.84) | 4.50** | 1<2,4,5 |
| Relevance of reflection | 4.36 (0.89) | 4.90 (0.91) | 4.43 (0.87) | 4.90 (0.92) | 4.90 (0.79) | 7.68*** | 1<2,4,5; 3<2,4,5 |

*$p < .05$; **$p < .001$*** $p < .0001$

*Note.* CF = CS = Compassion Satisfaction; Compassion fatigue; Bu = Burnout; STS = Secondary Traumatic Stress.

# Discussion

The present findings partly supported the hypotheses, but also revealed some unexpected findings. As to the correlational analysis it resulted in three main findings. First, as expected, compassion satisfaction (CS) was generally higher among psychologists who had good access to supervision and took a reflective stance. Second, although (as expected) compassion fatigue (CF) was lower among psychologists who were high on supervision, it was (unexpectedly) not lower among psychologists who were high on reflection. Third, and also unexpectedly, there was a clear decoupling between the two components of CF with regard to supervision: although the availability of supervision showed a rather high negative correlation ($r = -.40$) with burnout, it did not correlate ($r = -.08$) with secondary traumatic stress (STS). From these variable-oriented analyses it might be tempting to conclude that supervision was important both for the clinician's compassion satisfaction and as a protection against burnout, but not as protection against STS; and although reflection was important for one's compassion satisfaction, it did not seem to protect against compassion fatigue (neither burnout nor STS). Apart from the fact that this would be to draw unwarranted causal conclusions from correlational findings based on merely cross-sectional data, it would also represent a rather superficial picture based on analyses at the total group level which do not take account of different patterns found in various subgroups of psychologists.

The person-oriented analyses contributed to paint a much more nuanced picture of these associations. Most importantly, the absence of correlation between reflection and CF at the total group level was seen to hide a number of different patterns in different subgroups (clusters). In terms of "variable-oriented language", this might be expressed by saying that there was a non-linear relation between reflection and CF, which differed between its two subcomponents: burnout and STS. More precisely, this can be described as reflection being associated in different ways with CF depending on the profile patterns of other variables being involved. Most revealing in this regard was the second cluster analysis, which looked for patterns in how CS, burnout and STS would combine in different subgroups of psychologists, and compared these subgroups with regard to their scores on supervision and reflection.

The remaining discussion starts with the results from the first cluster analysis, and then proceeds to the results from the second cluster analysis and the cross-tabulation of the cluster solutions.

## The first cluster analysis

As to the first cluster analysis, it looked for patterns in how levels of supervision and reflection would combine in different subgroups of psychologists, and compared these subgroups with regard to their scores on CS, burnout and STS. A main finding here was that both in subgroups of psychologists having *high* access to supervision, and in subgroups having *low* access to supervision, the finding from the correlational analysis was corroborated: that is, although high reflection was associated with high CS, it showed no significant association with degree of CF (neither burnout nor STS).

One thing to note is that this analysis identified two clusters with almost equally *low* scores on supervision but that varied strongly on reflective stance – the Low Supervision/*Low* Reflection cluster and the Low Supervision/*High* Reflection cluster. Although these two clusters of psychologists scored almost equally high on CF, those with high scores on reflection scored significantly higher on CS. That is, *in the context of not having access to supervision*, taking a reflective stance was associated with higher CS but not with lower average levels of CF. This suggests the possibility that, even though a reflective stance in itself (i.e., without access to supervision) does not protect against compassion *fatigue*, it may contribute to significantly more of compassion *satisfaction* even in the absence of clinical supervision.

Similarly, the first cluster analysis showed that *in the context of having access to supervision*, taking a reflective stance was associated with higher CS, but not with lower CF. There were three clusters of psychologists with high scores on supervision – labeled High Supervision/High Reflection, High Supervision/Average Reflection, and High Supervision/Low Reflection. Although these clusters did not differ significantly on CF, the psychologists who combined high supervision with *high* reflection scored significantly higher on CS than those who combined high supervision with *low* reflection.

Altogether, this would indicate that, *independently of the level of supervision*, high reflection was associated with increased CS but not with lower CF. Theoretically, this suggests the conclusion that taking a reflective stance in itself does not protect against compassion *fatigue*, although it is beneficial for one's experience of compassion *satisfaction*.

At the same time, it is important to remember that these are cross-sectional findings, and can say nothing about what comes first, or what causes what. For example, the associations between a reflective stance and CS may mean either (1) that more reflection leads to higher CS, (2) that it is easier to keep a reflective stance when you experience a relatively high degree of compassion satisfaction, or (3) that CS and a reflective stance are related in terms of a circular causality – that is, they are reciprocally

reinforcing each other. Correspondingly, the absence of association between reflection and CF may mean either (a) that reflection does not protect against CF *and* that degree of CF does not affect one's degree of reflection, or (b) that reflection and CF are causally related in some kind of negative feedback cycle so that, for example, although high reflection tends to protect against CF, lower CF tends to motivate higher reflection, in a way that shows up as an absence of association in cross-sectional data.

It is important to bear in mind that, although the first cluster analysis uses a *person*-oriented approach to supervision and reflection, it stays at a *variable* level in the treatment of data on CS and CF. That is, it is quite possible that the averages on CS and CF may hide patterns that can only be revealed by a person-oriented approach also to CS and CF. This is sufficient reason why it may be of interest to carry out a cluster analysis also of patterns of CS and CF.

## The second cluster analysis

In view of the decoupling between burnout and STS that was found in the correlational analysis, the second cluster analysis takes on a special interest as it specifically looks at patterns of how levels of CS combine with levels of burnout and STS, considered as two separate variables and not summarized into a total CF score.

Here it is interesting to note that three of the five patterns of ProQOL scores that were described by Stamm (2010) were represented at least approximatively among the clusters that were identified in this analysis. Of these, the first two clusters showed the predicted patterns of high CS combining with low CF (the Low CF/High CS cluster), and low CS combining with high CF (the High Burnout/Low CS cluster). As expected these two extreme clusters also differed in the predicted direction on both supervision and reflection – the latter scoring significantly lower than the former on all three supervision and reflection variables. This is quite compatible with the hypothesis that low supervision and low reflection in combination are likely to lead to more burnout and less CS. However, it is also compatible with other possibilities – one such possibility is that burnout in combination with low CS leads to a kind of depressed emotional state that works against the seeking of supervision and the willingness to engage in reflection.

Apart from these two extreme clusters the analysis also identified a cluster of psychologists who combined high CS with high STS (the High STS/High CS) cluster. In accordance with previous findings, this illustrates that high compassion satisfaction can coexist with high compassion fatigue, or at least with high levels of the STS component of CF. Interestingly, despite their high scores on STS, this cluster scored *high* both on reflection and on supervision. Also of interest here, this cluster did not show any evidence of burnout – in fact, they scored even slightly below average on burnout. That is, evidence of a highly reflective stance here appears in the context of high STS in combination with high CS, and no elevated scores on burnout. One possibility, in keeping with Stamm's (2010) interpretation of this expected pattern, is that these psychologists are compassionately engaged clinicians who are working with traumatized patients, and cannot help resonating emotionally to their traumas but are still able to keep their compassion alive without burnout thanks to their access to supervision in combination with a reflective stance. Along these lines, it is also interesting to note that these psychologists had longer clinical experience than others.

Apart from this High STS/High CS cluster, the second cluster analysis also identified another cluster with high scores on CF, and in this case on both STS and burnout (the High CF/Average CS cluster), which was not predicted from Stamm's (2010) formulations. Quite surprisingly, this cluster of psychologists scored *high* on reflective stance (both reflection variables). This was in fact the only cluster that showed high levels of both CF components. In view of their high scores on burnout and their *very* high scores on STS, it was quite unexpected that psychologists with this profile should score the *highest* of all clusters on degree of reflection, and together with the two high-CS clusters also the highest on perceived relevance of reflection. One possibility is that this group of psychologists experienced high STS and burnout because they were working with very difficult patients, and coped with these challenges by developing a more reflective stance in such a way that they could keep at least average levels of compassion satisfaction. Another possibility is that the high reflection reported by these psychologists had the form more of dysfunctional rumination, in a way which actually contributed to an increased CF. On the basis of the available data there is no way of deciding between these (or other) possible explanations of the present results.

Finally, the second cluster analysis also identified a cluster of psychologists who combined *low* STS with average scores on CS and burnout (Low STS/Average CS). Completely against expectations, this cluster scored significantly *lower* on perceived relevance of reflection than the two high-STS clusters (High CF/Average CS, and high STS/high CS). To speculate, one possible explanation could be that these psychologists are low on STS because they don't work with traumatized patients but with much "easier" patient groups, so that much less emotion is evoked – it might then be natural that they would not perceive reflection on such emotions to be especially

relevant to their work. Again, in the absence of data on patient characteristics, this speculation cannot be checked.

The cross-tabulation of the cluster solutions contributed further to the overall picture by some interesting findings with regard to the cluster of psychologists that combined reports of high supervision with *average* levels of reflection. To interpret these findings, it is first of all important to note that this cluster was only one of three clusters from the first cluster analysis that scored high on supervision – the two other clusters combined high scores on supervision with either *high* or *low* scores on reflection. In view of their *average* scores on reflection, it is interesting that psychologists with this specific pattern tended to have a Low CF/High CS pattern significantly more often than expected by chance, and a High Burnout/Low CS pattern significantly less often than expected by chance. This suggests that, in psychologists with high access to supervision, it may be sufficient with average levels of reflection to reach good levels of CS and protect against CF.

## Conclusion

Altogether, these results suggest a non-linear and multi-faceted association between reflection and compassion fatigue. Despite the absence of a linear correlation between reflection and CF, it cannot be concluded that reflection does not protect against CF. In fact, several clusters of psychologists showed the expected association between level of reflection and level of CF – that is, high levels of reflection were associated with low levels of CF, and vice versa.

This was balanced, however, by other clusters that showed an association in the opposite direction, by combining high levels of reflection with high levels of CF (high STS, or high burnout and STS in combination). One possible explanation of these patterns is that they are due to the characteristics of the patients that these psychologists are working with. For example, if these patients are severely traumatized, or "difficult" in some other way that is highly stressful for the clinician, and the clinician still manages to keep a relatively high level of compassion satisfaction by the help of supervision and taking a reflective stance, this might result precisely in these kinds of patterns.

Similar considerations apply to the cluster of psychologists who combined low levels of reflection with low levels of CF (STS). Such a pattern may be expected in clinicians who work with relatively "easy" patients that do not evoke much emotion in the therapeutic relationship, and therefore makes a reflective stance less relevant. In the absence of data on the patient populations being involved, however, these explanations remain speculative.

## Limitations and future research

The present study suffers from a number of limitations. First, as has already been made clear from the preceding discussion, the absence of information about the patients of the participating psychologists makes it impossible to test some of the hypothetical explanations that have been put forward. Future research on the present topic should take care to collect data on such patient characteristics. Second, the study made use of a cross-sectional design that makes it impossible to draw causal conclusions about the direction of effects. Third, the online administration of the questionnaire involved little control of the respondents who chose to participate. And fourth, the use of only three self-composed items to measure the availability of supervision and aspects of a reflective stance is also an important limitation; it may be recommended that future research develops better instruments to measure these variables. Taking all these limitations into account, however, the present results include a number of interesting findings that might stimulate more research along these lines to clarify how supervision and a reflective stance may be associated over time with compassion satisfaction and compassion fatigue in psychologists' work with different patient populations.

## Authors' contributions

This paper is a revised and expanded version of a Masters thesis that was written by MD (Dehlin, 2017), under the supervision of LGL. LGL added new analyses. Both authors read and approved of the final manuscript.

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