Research Article

Positive Psychotherapy for Reducing Burnout and Compassion Fatigue in Rehabilitation Staff

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ABSTRACT

Introduction: Positive psychology may serve as a protective approach against fatigue and burnout in environments where workers face disability, adversity, and suffering. The present study aimed to determine the effectiveness of positive psychotherapy based on the positive emotion, engagement, relationships, meaning, and accomplishment (PERMA) flourishing model in reducing occupational burnout and compassion fatigue among staff working in rehabilitation centers affiliated with the Welfare Organization—an understudied population whose wellbeing may affect service quality and client outcomes.

Materials and Methods: A single-case experimental design was used with five rehabilitation staff members from Yazd Province, Iran. Participants received eight weekly sessions of the PERMA flourishing program. Burnout and compassion fatigue were assessed before, during, and after the intervention, with clinical improvement evaluated using the reliable change index (RCI).

Results: The results demonstrated a significant reduction in burnout and compassion fatigue, with an acceptable percentage of improvement and RCI values exceeding 1.96 ($P<0.05$). For emotional exhaustion, depersonalization, and secondary traumatic stress, RCI values exceeded 2.58 ($P<0.01$), with improvement percentages ranging from 23–100%, 52–64%, and 24–80%, respectively. For compassion satisfaction, compassion fatigue, and secondary traumatic stress, RCI values ranged from 1.96 to 2.58 ($P<0.05$), with improvement percentages of 14–48%, 25–52%, and 23–33%, respectively. These results indicated statistically and clinically meaningful improvements following the PERMA flourishing intervention.

Conclusion: Based on these findings, the PERMA flourishing program may be an effective intervention for reducing occupational burnout and compassion fatigue among rehabilitation personnel.

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Introduction

One vulnerable group in society comprises individuals with intellectual and physical disabilities. Supporting individuals with intellectual disabilities demands exceptional patience and resilience from caregivers, as it often requires specialized services, repeated instruction, and significant emotional investment. These professionals often need to repeat and reinforce training multiple times, a process that can gradually lead to fatigue and ultimately occupational burnout. Occupational burnout is the result of excessive exposure to workplace stress [1]. When the work environment fails to meet individual needs, staff experience psychological strain, exhaustion, and reduced effectiveness. These conditions decrease attention, alertness, and task performance, thereby increasing the likelihood of occupational errors or accidents. Burnout has long been recognized as a critical issue, affecting even professionals who were once highly motivated and committed to their work, resulting in feelings of fatigue, cynicism, and purposelessness [2, 3].

Burnout is often conceptualized as a syndrome representing an individual's response to chronic occupational stress, developing gradually and potentially leading to long-term physical and psychological harm [4]. Initially, it was believed that burnout occurred only among professionals in healthcare and caregiving contexts [5]. However, subsequent research has demonstrated that burnout can occur across a wide range of professions and occupational settings [6]. Importantly, the development and manifestation of burnout may vary considerably depending on how the construct is defined [7]. In recent years, preventing and reducing burnout has become a priority across various professions, particularly in caregiving and helping roles that require intensive interaction between professionals and care recipients. These professions—such as medicine, nursing, psychotherapy, psychological counseling, social work, teaching, and coaching—aim to support individuals' physical, emotional, cognitive, or psychological development [8].

In addition to occupational burnout, another related phenomenon is compassion fatigue, which often occurs among caregivers, health professionals, and individuals working with vulnerable populations. Compassion fatigue, originally introduced in the field of mental health and caregiving [9], is defined as "a reduction in empathy or the capacity to care, manifesting through emotional and behavioral responses resulting from exposure to others' traumatic experiences" [10]. It typically develops in response to sustained exposure to stressful caregiving situations. The term was first used to describe the diminished capacity for compassion arising from repeated contact with others' suffering [11, 12]. Compassion fatigue is particularly prevalent among nurses, social workers, occupational therapists, rehabilitation staff, counselors, and similar professionals who frequently provide high levels of care [13]. Witnessing the suffering of others, particularly when unable to alleviate their distress, imposes significant emotional burdens, especially on healthcare providers [14].

One emerging psychological approach that may alleviate burnout and compassion fatigue is positive psychology. Positive psychology emphasizes the scientific study of positive emotions and human strength [15]. Its central focus lies in nurturing individual strengths and talents, cultivating optimism, fostering positive emotions, and enhancing meaning and purpose of life [16]. Among the most influential frameworks in positive psychology is Seligman's positive emotion, engagement, relationships, meaning, and accomplishment (PERMA) model of flourishing, which consists of five core elements: positive emotions (e.g. contentment, gratitude, hope, and love), which are essential for overall well-being; engagement, characterized by deep absorption in tasks that facilitate flow and enhance happiness; positive relationships, reflecting the essential role of supportive social interactions in promoting well-being; meaning, denoting a sense of purpose and value in life, often reinforced by spirituality and transcendent beliefs; and accomplishment, referring to achievement, mastery, and progress, which strengthen well-being and resilience [17].

The PERMA flourishing program, rooted in positive psychology, emphasizes cultivating positive emotions, fostering meaning in life, building optimism, and enhancing enjoyment of life [18]. According to this perspective, positive emotions improve cognitive functioning, while meaning and purpose facilitate self-actualization. The overarching goal of positive psychology is to promote well-being and happiness [17].

Seligman (2011) refined the PERMA framework as a universal model of human flourishing, emphasizing that its components collectively promote well-being across diverse contexts. He proposed that these elements are independently definable, measurable, and universally applicable across diverse ages, cultures, and backgrounds, thereby fostering human flourishing [18]. Within this framework, interventions based on the PERMA model may reduce occupational burnout and compassion fatigue by promoting emotional regulation, fostering meaning and purpose, and mitigating negative emotional states [16].

However, few studies have explored positive psychology interventions, particularly the PERMA model, for reducing burnout and compassion fatigue among caregivers of individuals with intellectual disabilities [12, 14]. Therefore, this study aimed to investigate the effectiveness of a positive psychotherapy intervention based on the PERMA flourishing model on occupational burnout and compassion fatigue among rehabilitation center instructors. We hypothesized that participants receiving the PERMA-based training would demonstrate a significant reduction in occupational burnout (specifically emotional exhaustion and depersonalization), compassion fatigue, and secondary traumatic stress, and a significant increase in personal accomplishment and compassion satisfaction compared to their baseline levels.

Materials and Methods

This study employed a single-case experimental design with a baseline phase. A single-case experimental design was selected for several key reasons. First, the population of qualified instructors working in specialized rehabilitation centers is often limited and difficult to access in large numbers, making traditional large-sample group studies challenging. This design is particularly suited for small, specialized populations. Second, single-case methodology allows for an in-depth, longitudinal analysis of change within each individual, providing robust evidence for the intervention's effect at the participant level through repeated measurements across baseline, intervention, and follow-up phases. This intensive time-series data offers strong internal validity for demonstrating a functional relationship between the introduction of the PERMA intervention and observed changes in the outcome variables for each participant. The study population comprised all staff working in rehabilitation centers for individuals with intellectual disabilities aged 15 or older in Yazd Province during 2023. The sample included five caregivers selected through purposive sampling, based on the following inclusion criteria: aged between 25 and 50 years; at least two years of work experience as an instructor in rehabilitation centers under the Welfare Organization; and a minimum educational level of a high school diploma. The exclusion criteria included having other jobs or working irregular shifts, unwillingness to participate, and use of psychiatric medications.

An initial one-hour orientation session was held to explain the intervention's objectives and the rules of group participation. The participants then entered the baseline phase. During this phase, they completed the dependent variable questionnaires (Maslach burnout inventory (MBI) and Figley compassion fatigue scale) twice at a two-week interval. Subsequently, the intervention based on the PERMA flourishing model [18, 19] was delivered in person in a group training format to the five staff (Table 1). The program consisted of eight weekly sessions, each lasting 120 minutes. In addition to the pre-test assessments, participants completed the questionnaires again at the beginning of the third and sixth sessions (repeated measures during the intervention). Finally, post-test evaluations were conducted at the end of the eighth session, followed by a two-week follow-up assessment. Overall, the intervention process comprised the baseline assessments, eight 120-minute group sessions, and follow-up.

Instruments

MBI: This inventory consists of 22 items assessing three dimensions: emotional exhaustion, depersonalization, and personal accomplishment. Nine items measured emotional exhaustion, five items assessed depersonalization, and eight items evaluated personal accomplishment. Responses were scored on a seven-point Likert scale ranging from 0 (never) to 6 (always). Since the subscales are not additive, no overall score was calculated. Higher emotional exhaustion and depersonalization scores, with lower personal accomplishment scores, indicate higher levels of burnout. Reported Cronbach's α coefficients for this measure range from 0.71 to 0.90, with test re-test reliabilities between 0.60 and 0.80 [5]. The instrument has been widely used by Iranian researchers, and the Persian version's content and face validity were confirmed by 10 experts in management, psychology, nursing, and emergency medicine [20]. Cronbach's α coefficients for the Persian version were 0.80 for emotional exhaustion, 0.81 for depersonalization, and 0.84 for personal accomplishment [20].

Figley compassion fatigue scale: This widely used instrument was originally developed by Charles Figley in the late 1980s under the name "Compassion fatigue self-test." The original 66-item form was later reduced to 30 items. This study used the 30-item version, which comprises three subscales: compassion satisfaction (items 1–10), compassion fatigue (items 11–20), and secondary traumatic stress (items 21–30). Responses are given on a 5-point Likert scale ranging from 1 (never) to 5 (very often). Subscale scores are independent and should not be combined. Low scores on compassion satisfaction and high scores on compassion fatigue and secondary traumatic stress indicate elevated levels of compassion fatigue [21]. For the Persian version, the content validity index was 0.78, Cronbach's α was 0.80,

Table 1. Content of the PERMA flourishing intervention sessions [18, 19]

Session	Objective	Intervention Content	Homework/Assignments
1	Self-introduction and group familiarization; introduction to PERMA program	Establishing rapport, introducing group members, explaining the PERMA flourishing program and session structure	-
2	Understanding the concept of flourishing	Explaining flourishing based on theories of Carl Rogers, Abraham Maslow, and Martin Seligman	Writing down personal aspirations, life obstacles, and self-actualization goals
3	Facing reality; psychological well-being and gratitude	Reflection on personal life realities, discussion of life satisfaction and well-being (Seligman), introduction of gratitude	Writing memories of pleasurable moments and composing a gratitude letter to a friend
4	Positive emotions	Explaining the role of positive emotions, introducing the emotion cycle, emphasizing the need for positive emotional experiences	Writing down three positive events or blessings experienced that day
5	Constructive engagement and absorption in work	Identifying personal strengths using Seligman's 24-character strengths test	Self-assessment exercise: writing down positive traits and strengths
6	Positive relationships and forgiveness	Discussing the importance of positive relationships, training in effective communication and social skills, exploring forgiveness, practicing anger-release techniques	Recording three examples of social and personal contributions
7	Meaning in life	Explaining purpose and meaning in life based on Seligman's model; exploring goals and values; using strengths to help others	Writing reflections on the meaning of life and three positive personal experiences
8	Progress, success, and accomplishment	Clarifying concepts of achievement and success based on Seligman's theory	Writing three personal achievements and three current life goals

PERMA: Positive emotion, engagement, relationships, meaning, and accomplishment.

and test re-test reliability was 0.84. The face validity was also confirmed, with content validity ratio and content validity index values of 0.42 and 0.91, respectively, which were deemed acceptable given the number of expert raters [22].

Data analysis

Given the single-case design, repeated measures were analyzed in two ways: graphical representation of the results, and calculation of the percentage of improvement and the reliable change index (RCI) to determine the clinical significance of change. The percentage of improvement was calculated using the following formula (Equation 1) [23].

1. $$Improvement\ Percentage = \frac{Last\ Intervention\ Score - Baseline\ Mean\ Score}{Baseline\ Mean\ Score} * 100$$

In this formula, the last intervention score is subtracted from the baseline mean, and the result is divided by the baseline mean. The final value is multiplied by 100 to obtain the percentage. The RCI was calculated using the modified Jacobson formula (Equation 2) [24] to assess the clinical significance of observed changes.

2. $$RCI = \frac{Last\ Intervention\ Score - Baseline\ Mean\ Score}{Standard\ Error\ of\ Difference}$$

Where the standard error of difference is defined as:

Standard error of difference=$\sqrt{2}\times(\text{Standard error})^2$

Standard error=Standard deviation of the scale×$\sqrt{1}$-The test re-test reliability

Results

Participant profiles

Participant 1: A 26-year-old married woman with a bachelor's degree in counseling, mother of one child, and two years of work experience at a vocational rehabilitation center as an instructor for individuals with moderate intellectual disabilities. She worked on a contractual basis six days per week. She perceived her current position as unsuitable and sought career advancement.

Participant 2: A 28-year-old divorced woman, student, and mother of a primary school-aged son. She had two years of experience as an instructor for individuals with moderate intellectual disabilities in a rehabilitation center. Without financial support from her ex-husband

or his family, she was solely responsible for her and her child's expenses, including tuition. She reported experiencing strong feelings of compassion for her clients.

Participant 3: A 48-year-old single woman with a bachelor's degree in literature and over 10 years of work experience in rehabilitation services. She had long been familiar with individuals with intellectual disabilities through sports instruction outside rehabilitation centers. Since 2018, she had been working full-time, six days a week, as a skills instructor in a rehabilitation center. Despite her extensive experience, she expressed dissatisfaction with her salary and contractual benefits.

Participant 4: A 26-year-old married woman with a bachelor's degree in psychology, mother of one child, and two years of experience in a daily rehabilitation center for individuals aged 15 and above. She worked part-time (four days per week) under a contractual arrangement. According to her account, she has left her position after 18 months due to psychological strain but later returned to work, motivated by a sense of longing and compassion for the clients. Signs of fatigue, self-dissatisfaction, and partial work-related dissatisfaction were observed.

Participant 5: A 37-year-old married woman with a bachelor's degree in psychology, mother of two children, and two years of experience as both instructor and technical supervisor at a daily vocational rehabilitation center. She worked six days per week (more than six hours per day) under a contractual agreement. While she expressed overall job satisfaction, she reported that the workload and responsibilities were disproportionately high, which occasionally led to stress and fatigue.

Data analysis and findings

To test the study hypotheses —that the PERMA intervention would reduce emotional exhaustion, depersonalization, compassion fatigue, and secondary traumatic stress, while increasing personal accomplishment and compassion satisfaction, participants' scores were collected across two baseline assessments, three intervention stages, and one follow-up. Mean baseline scores were calculated, and the percentage of improvement and the RCI were used as effect-size indicators. To enhance interpretation, line graphs were plotted to illustrate score trajectories across baseline, intervention, and follow-up phases. Table 2 presents the results for burnout.

As shown in Figure 1 and Table 2, there was a clear downward trend in emotional exhaustion scores for all five participants, reflecting the positive effect of the PERMA flourishing intervention. Participant 2 initially demonstrated resistance, as indicated by increased scores at the early stages of intervention, but subsequently showed reductions during later assessments. Overall, the decline persisted through follow-up, with scores remaining lower than baseline, suggesting that the intervention was both effective and stable in reducing emotional exhaustion.

Table 2 further demonstrates that the percentage of improvement ranged from 23% to 100%. All RCIs exceeded 2.58, indicating that reductions in emotional exhaustion were clinically significant ($P<0.01$). Follow-up data confirmed the sustainability of these effects.

Similar to emotional exhaustion, Figure 2 shows a consistent decline in depersonalization scores across participants. The post-test reduction indicates responsiveness to the intervention, and the follow-up phase demonstrates stability of these effects. Improvements ranged from 52% to 64%, with RCIs above 2.58, confirming clinical significance at the 99% confidence level ($P<0.01$). Although RCIs for depersonalization were generally lower than for emotional exhaustion, both variables showed significant change. The persistence of reduced scores at follow-up suggests that the PERMA flourishing intervention effectively decreased depersonalization.

In contrast, as shown in Table 2 and Figure 3, the personal accomplishment scores demonstrated an upward trajectory across all participants. This increase indicates that the intervention enhanced perceived personal accomplishment over time. The improvements remained largely stable during follow-up, suggesting that the intervention had lasting benefits. Improvement percentages ranged from 24% to 80%, with RCIs above 2.58, indicating clinical significance ($P<0.01$).

As shown in Table 3 and Figure 4, all participants experienced consistent increases in compassion satisfaction from baseline to intervention and follow-up. This upward trajectory reflects the positive influence of the PERMA flourishing model on enhancing compassion satisfaction, with the effects remaining stable after the intervention.

In contrast, Figure 5 shows that participants experienced steady declines in compassion fatigue scores from baseline through intervention, with reductions maintained during follow-up. Improvement percentages

Table 2. Participants' scores on burnout subscales across assessment phases

Variables	Participant	Baseline 1	Baseline 2	Baseline Mean	Intervention 3	Intervention 6	Post-test	Standard Error	RCI	Improvement %	Overall Improvement	Follow-up
Emotional exhaustion	P1	13	13	13	19	8	10	0.72	-4.16	-23	-72.45	10
	P2	14	14	14	15	15	5	0.72	-12.5	-64		9
	P3	12	12	12	12	7	3	0.72	-12.5	-75		3
	P4	9	10	9.5	2	1	0	0.72	-13.19	-100		0
	P5	10	10	10	2	0	0	0.72	-13.89	-100		0
Depersonalization	P1	9	8	8.5	5	7	3	1.42	-3.87	-64	-54	3
	P2	8	9	8.5	8	5	3	1.42	-3.87	-64		3
	P3	9	8	8.5	6	5	4	1.42	-3.16	-52		4
	P4	8	8	8	6	5	4	1.42	-2.81	-50		4
	P5	8	9	8.5	4	4	3	1.42	-3.87	-64		3
Personal accomplishment	P1	29	28	28.5	32	36	38	2.29	4.14	33	43	38
	P2	18	22	20	25	32	36	2.29	6.98	80		36
	P3	30	28	29	34	34	36	2.29	3.05	24		36
	P4	27	29	28	31	33	38	2.29	4.36	35		37
	P5	28	27	27.5	34	37	40	2.29	5.45	45		38

RCI: Reliable change index.

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ranged from 25% to 52%, with RCIs above 2.58 in all cases, confirming that these reductions were both significant (P<0.01) and stable.

Finally, as illustrated in Table 3 and Figure 6, secondary traumatic stress scores also decreased consistently across participants. The improvement percentages ranged from 23% to 33%. While some RCIs fell below 2.58, they remained above 1.96, indicating statistical significance at the 95% confidence level (P<0.05). These results demonstrate that the PERMA flourishing intervention effectively reduced secondary traumatic stress, with reductions sustained at follow-up.

Discussion

This study aimed to examine the effectiveness of the PERMA flourishing model training on occupational burnout and compassion fatigue among rehabilitation staff working in welfare centers. The findings indicated that the PERMA flourishing model significantly reduced both burnout and compassion fatigue. While no prior studies have applied this specific model to rehabilitation staff, the present results are conceptually consistent with a growing body of evidence demonstrating the positive effects of the PERMA framework on well-being across diverse populations. For instance, studies have shown its efficacy in improving the quality of life (QoL) of adolescents with hearing impairments [25], enhancing happiness and social participation in students [26], and strengthening future orientation and self-actualization [27]. Although the outcome variables in these studies differ, they collectively illustrate the model's core function: building psychological resources, such as positive emotions, engagement, and meaning. This bolstering of overall well-being and psychological capital serves as the active mechanism for reducing negative states, such as emotional exhaustion and compassion fatigue, in our sample of caregivers. Similarly, Kovich et al. [28], in a study titled "Application of the PERMA model in

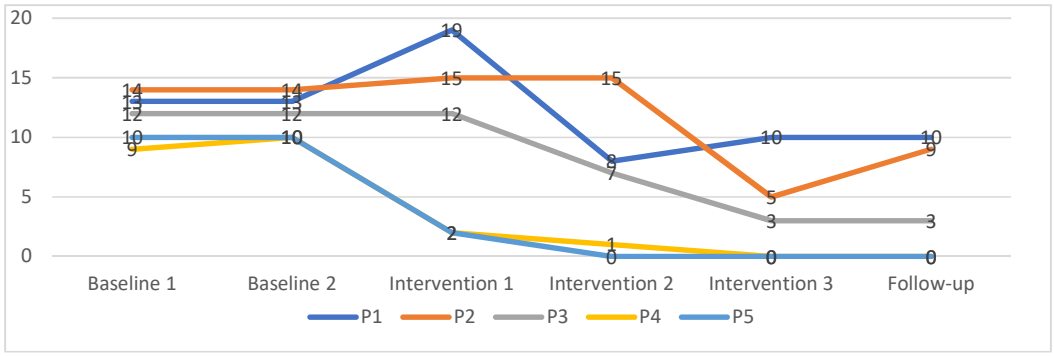

Figure 1. Trends in emotional exhaustion scores

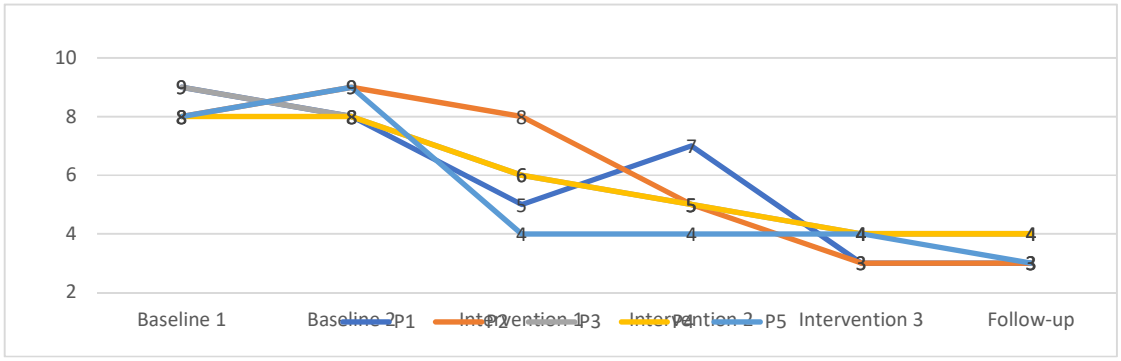

Figure 2. Trends in depersonalization scores

student well-being," demonstrated that all five components of the PERMA model played a significant role in enhancing students' psychological well-being.

The present results may be explained through the influence of the five components of the PERMA flourishing model on reducing compassion fatigue and occupational burnout. The theoretical foundation of flourishing suggests that for optimal growth, life must be enriched by favorable conditions such as personal development, generativity, and resilience [29]. Working in human service professions, such as those in welfare rehabilitation centers, provides opportunities for personal growth and resilience through supporting individuals with intellectual disabilities. However, when individuals fail to sufficiently differentiate themselves from others, empathy may turn into personal distress. In such cases, professionals in helping occupations who cannot emotionally

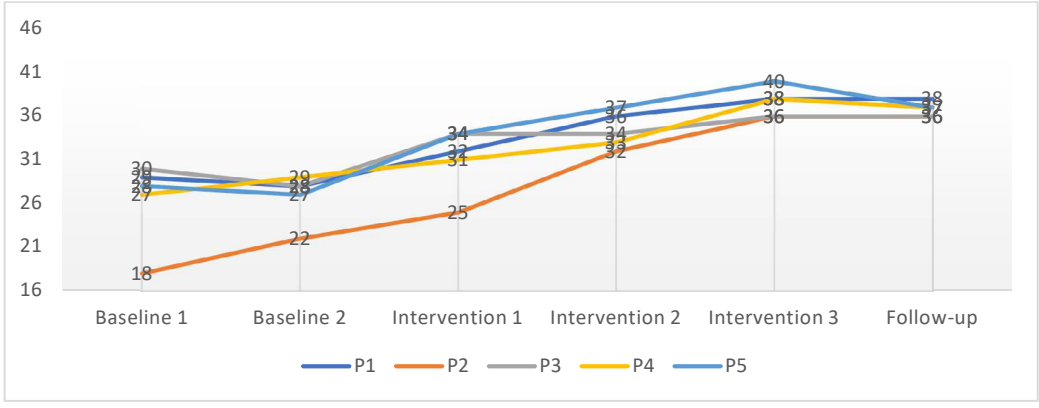

Figure 3. Trends in personal accomplishment scores

Table 3. Changes in compassion fatigue scores across assessment phases

Variables	Participant	Baseline 1	Baseline 2	Baseline Mean	Intervention 3	Intervention 6	Post-test	Standard Error	RCI	Improvement %	Overall Improvement	Follow-up
Compassion satisfaction	P1	37	38	37.5	40	42	43	2.43	2.26	14	25	44
	P2	28	34	31	42	43	46	2.43	6.17	48		46
	P3	36	38	37	42	45	47	2.43	4.11	27		48
	P4	40	43	41.5	44	43	48	2.43	2.67	15		47
	P5	40	42	41	46	49	50	2.43	3.7	21		50
Compassion fatigue	P1	38	40	39	35	34	29	3.49	-2.86	25	-36	29
	P2	37	38	37.5	36	31	22	3.49	-4.44	-41		24
	P3	38	32	35	32	29	25	3.49	-2.86	-28		25
	P4	33	34	33.5	20	19	16	3.49	-5.01	-52		15
	P5	34	30	32	28	24	20	3.49	-3.43	-37		20
Secondary traumatic stress	P1	24	23	23.5	22	20	18	2.37	-2.32	-23	-27	18
	P2	19	17	18	19	16	12	2.37	-2.53	-33		13
	P3	22	24	23	17	15	15	2.37	-2.53	-33		14
	P4	18	19	18.5	18	15	13	2.37	-2.32	-29		13
	P5	18	18	18	15	14	13	2.37	-2.1	-27		13

RCI: Reliable change index.

separate themselves from those they serve may experience secondary traumatic stress or compassion fatigue [30]. Personal growth and generativity, fostered by the PERMA-based intervention among welfare staff, create conditions for empathizing with others while maintaining appropriate boundaries, thereby reducing symptoms of compassion fatigue and burnout [21].

Given the specific needs of individuals with intellectual disabilities—who require additional effort, attention, patience, and repeated instruction—rehabilitation trainers and staff must devote considerable time and energy. The PERMA flourishing program, grounded in five core elements, appears to influence occupational burnout by strengthening these protective psychological factors. For instance, the first element, positive emotions—including calmness, satisfaction, gratitude, hope, and love—is essential for living a healthy life. Cultivating positive emotions, such as gratitude and contentment, fosters greater satisfaction with one's professional role [18].

The second element, engagement, characterized by flow and absorption in work, may reduce burnout symptoms. When individuals are fully immersed in their tasks—whether educational, research, or professional—they experience a sense of fluidity and well-being. Mindful training in engagement may alleviate symptoms of burnout and compassion fatigue [18].

The third element, positive relationships, enhances workplace atmosphere and interpersonal bonds, promoting satisfaction and vitality [16]. In this study, participants were encouraged to strengthen positive relationships with colleagues and the families of children with intellectual disabilities, which could mitigate burnout and compassion fatigue.

The fourth element, meaning, involves cultivating a sense of self-worth and pursuing significant life goals. Belief in spirituality and transcendent sources provides individuals with a deeper sense of value and purpose

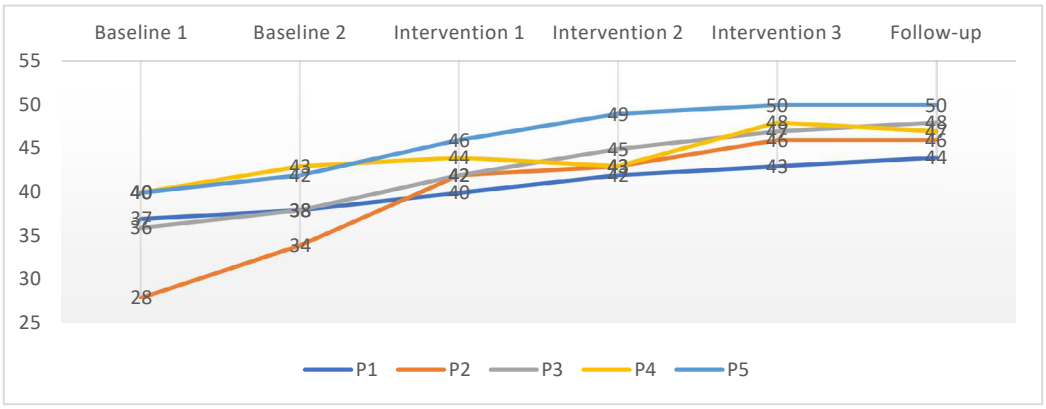

Figure 4. Trends in compassion satisfaction scores

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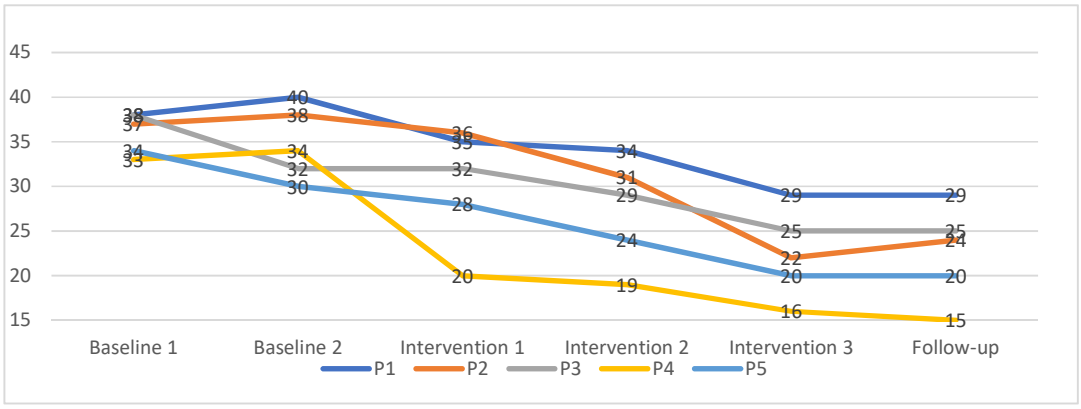

Figure 5. Trends in compassion fatigue scores

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[18]. Research has shown that professional meaning in caregiving roles can reduce caregiver burden and burnout [31–33]. In religious societies such as Iran, spirituality and faith may serve as additional resources to enhance caregivers' job satisfaction [34], a point that was strongly emphasized in the intervention program.

Finally, the fifth element, accomplishment, fosters motivation for growth, success, and career achievement, which in turn improves well-being [18]. When individuals realize motivation for flourishing, they fulfill their potential and reach optimal human functioning [16]. In this study, by focusing on accomplishments in working with individuals with intellectual disabilities, the intervention enhanced motivation for growth and success, which may reduce burnout and compassion fatigue.

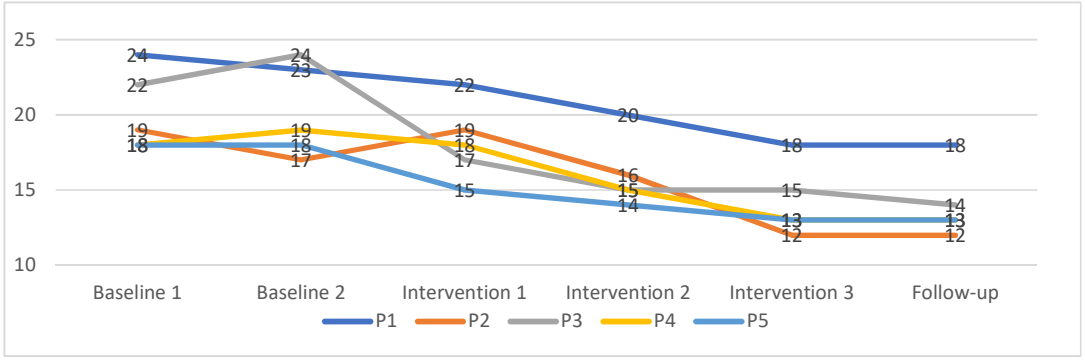

Figure 6. Trends in secondary traumatic stress scores

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Another explanation for the study's findings is the use of practical exercises during the intervention. For example, Seligman's strengths and weaknesses test allowed participants to become more aware of their character traits and to recognize not only their strengths but also internal barriers requiring improvement [18, 19]. A common weakness among caregivers is low self-compassion, often accompanied by high levels of altruism and compassion for others [35]. This imbalance between self-kindness and compassion for others contributes to compassion fatigue. The PERMA model, through constructive techniques and enhanced self-awareness, appears to play a significant role in reducing this imbalance among caregiving staff.

To discover life's meaning, individuals also need a strong sense of "assurance" and "self-understanding," which can be cultivated through the use of personal strengths [18]. Employing personal strengths in relation to values beyond the self often enriches life with greater meaning, providing a clearer vision of one's existence. Narrative practices, such as writing about one's future selves, can further foster meaning [36]. Such exercises were incorporated into the intervention sessions of this study, allowing participants to achieve inner satisfaction, thereby reducing compassion fatigue and burnout.

Finally, while the overall results demonstrated a clear downward trend in emotional exhaustion, it is noteworthy that participant 1 exhibited a temporary increase in scores at the beginning of the intervention phase. This initial rise could be interpreted as a sign of the intervention's initial impact, where the focus on self-awareness and confronting personal realities (sessions 2-3) may have temporarily heightened the participant's awareness of their own emotional fatigue and job-related stressors, before the subsequent sessions on positive emotions, engagement, and meaning provided them with the tools to effectively manage and reduce this exhaustion. This pattern is consistent with the concept that some therapeutic interventions can cause a temporary increase in distress as individuals engage more deeply with their challenges before achieving improvement (you could cite a general psychotherapy process source here, if you wish). The subsequent sharp decrease in emotional exhaustion by the sixth session and its maintenance at follow-up suggest that the PERMA model was ultimately effective for this participant, even after an initial period of increased awareness.

Considering the high prevalence of burnout and compassion fatigue in welfare centers and among caregivers of individuals with disabilities, it is recommended that positive psychology–based intervention programs using the PERMA model be implemented for rehabilitation trainers. It is further suggested that participation in such training be included as an in-service requirement and a condition for license renewal or contract extension in rehabilitation centers.

Conclusion

Within the context of this study's design, the findings indicate that the PERMA flourishing model was an effective intervention for reducing occupational burnout and compassion fatigue among the participating staff, providing a strong rationale for future larger-scale investigations. While the intervention was effective for our participants, broader generalizability requires further research with larger, more diverse samples. Therefore, the PERMA model appears to function not only as a psychological intervention but also as a practical framework for building resilience and sustainable well-being among professionals in high-stress caregiving roles. By systematically cultivating positive emotions, engagement, relationships, meaning, and accomplishment, this approach addresses the core deficits that lead to burnout and compassion fatigue.

Limitations and future research

This study had some limitations. It was conducted exclusively among female staff working with adolescent girls (aged 15 years and older) in day rehabilitation centers. Therefore, the findings cannot be generalized to staff working with male adolescents, as gender differences and related factors may influence occupational burnout. Furthermore, the age range of care recipients in this study was limited to 15 years and above, which may not fully correspond to the conditions of staff working with younger populations. Future studies are recommended among staff and other rehabilitation staff across different welfare units to ensure broader generalizability and allow meaningful comparisons of findings.

Ethical Considerations

Compliance with ethical guidelines

This study was conducted in accordance with the ethical principles of the Declaration of Helsinki. The study was approved by the Research Ethics Committee of Ardakan University, Ardakan, Iran (IR.ARDAKAN.REC.1404.026). Informed consent was obtained from all participants, who were assured of confidentiality and the voluntary nature of their participation. This research adhered to ethical guidelines to respect participants' dignity and ensure data privacy.

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Authors' contributions

Supervision, conceptualization, methodology, and data curation: Yasser Rezapour Mirsaleh; Investigation, formal analysis, validation, and writing the original draft: Reyhane Afkhami; Review and editing: Yasser Rezapour Mirsaleh and Hamidreza Aryanpour.

Conflict of interest

The authors declared no conflict of interest.

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