



Acceptability and feasibility of a meaning-focused intervention at work: A case series study.

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Title: Aceptabilidad y viabilidad de una intervención centrada en el significado en el trabajo: un estudio de serie de casos.

Resumen: El concepto de significado en la vida es fundamental en la investigación sobre el bienestar, sin embargo, su exploración en entornos aplicados sigue siendo limitada. Este estudio tuvo como objetivo evaluar la viabilidad y aceptabilidad de una intervención centrada en el significado en el lugar de trabajo. Implementamos una intervención de seis semanas centrada en el significado en la vida que se enfocaba en mejorar la coherencia, el propósito y la importancia tanto en los ámbitos personal como profesional. Los participantes fueron 9 miembros de las fuerzas armadas españolas que participaron voluntariamente en la intervención. Utilizamos un diseño de estudio de caso para evaluar la viabilidad y aceptabilidad de la intervención. Las tasas de asistencia fueron altas, con un 77.78% de los participantes expresando satisfacción general con la intervención. Analizamos datos pre y post intervención sobre los niveles de significado en la vida, trabajo significativo, agotamiento, compromiso, bienestar y depresión de los participantes. Se observaron cambios significativos en el 33% de la muestra con respecto al significado en la vida y en el 22% en cuanto al trabajo significativo, la eficacia profesional y el bienestar general. Este estudio demuestra la viabilidad y aceptabilidad de nuestra intervención centrada en el significado, sugiriendo su potencial eficacia. A través de estudios de series de casos, hemos destacado la importancia de cultivar el significado en la vida como una habilidad esencial en el mundo actual, fundamental para mantener una salud mental sólida frente a las adversidades.

Palabras clave: Significado en la vida. Trabajo significativo. Bienestar. Intervenciones positivas. Estudio de series de casos.

Abstract: The concept of meaning in life is fundamental in well-being research, yet its exploration in applied settings remains limited. This study aimed to assess the feasibility and acceptability of a meaning-focused intervention in the workplace. We implemented a six-week meaning in life intervention that targeted enhancing coherence, purpose, and significance in both personal and professional domains. The participants included 9 workers from the Spanish armed forces who voluntarily participated in the intervention. We utilized a case study design to evaluate the intervention's feasibility and acceptability. Attendance rates were high, with 77.78% of participants expressing overall satisfaction with the intervention. We analyzed pre- and post-intervention data on participants' levels of meaning in life, meaningful work, burnout, engagement, well-being, and depression. Significant changes were observed in 33% of the sample regarding meaning in life and in 22% concerning meaningful work, professional efficacy, and overall well-being. This study demonstrates the feasibility and acceptability of our meaning-focused intervention, suggesting its potential efficacy. Through case series studies, we have highlighted the importance of cultivating meaning in life as an essential skill in today's world, crucial for maintaining robust mental health in the face of adversities.

Keywords: Meaning in life. Meaningful work. Well-being. Positive psychological interventions. Case series study.

Introduction

In recent decades, researchers have increasingly focused on understanding the concept of meaning in life and developing interventions to enhance it (Martela & Steger, 2016; Van Agteren et al., 2021). Previous studies have explored the relationship between meaning in life and various factors such as physical quality of life and longevity (Czekierda et al., 2017), reduction of depressive symptoms (Steger & Kashdan, 2013), lower suicide rates, greater psychological well-being (Steger, 2018), and a stronger sense of belonging and life satisfaction (Steger et al., 2011). Longitudinal studies have also indicated that a lack of meaning in life predicts an increased risk of cognitive decline and other physical health issues (Sutin et al., 2020).

Although all personal domains can foster meaning in life, the work domain stands out as one of the most significant sources of meaning (Steger & Dik, 2009). Meaningful work is defined as the perception that one's work is important, has a clear purpose, and contributes to something greater

(Steger, 2019). Enhancing meaningful work can enhance people's quality of life (Steger & Dik, 2009). Research has shown that meaningful work arises from the alignment of personal strengths and values with work activities, leading to improved well-being, engagement, efficiency, reduced absenteeism, and decreased burnout (Dik et al., 2015).

Meaning in life interventions have proven effective in increasing meaning and improving coping abilities in the face of adversity and personal crises, particularly for individuals who have experienced hardship or illness (Manco & Hanby, 2021). However, there are fewer intervention studies involving the general population. Some interventions have demonstrated improvements in individuals' sense of meaning, well-being, meaningful work, and reductions in depressive symptoms and anxiety (Cantarero et al., 2021; Steger et al., 2014; Van Agteren et al., 2021). Nevertheless, interventions focused on meaning in life for the general population remain scarce and necessitate evaluation within specific contexts (Blustein et al., 2023).

Recently, there has been a deeper exploration into the recommended content for this type of interventions based on meaning in life, highlighting aspects related to the identification of character strengths by connecting with the true self and linking it to meaningful experiences, clarifying personal values, paying mindful attention to sources of mean-

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(Article received: 10-11-2023; revised: 12-03-2024; accepted: 11-04-2024)

ing, establishing coherent purposes and objectives, reflecting on the past, present, and future, and strengthening interpersonal connections (Steger, 2022). By integrating these components, our intervention provides a comprehensive framework for participants to explore and enhance their meaning.

Meaningful Work Interventions in Security Forces

In security forces such as police and military units, meaning in life and meaningful work serve as protective factors against stressful work situations and post-traumatic stress disorders (Currier et al., 2011, Frapsauce et al., 2022). Given the societal service objectives of these roles, leaders in police and military sectors should aim to enhance the perceived meaning associated with these professions (Frapsauce et al., 2022).

Research has revealed that the presence of meaning in life is negatively correlated with depressive symptoms and suicidal behavior and positively associated with well-being among security force personnel (Fischer et al., 2020). Moreover, meaning in life is linked to reduced anxiety and improved success and performance across various professional domains within the American military (Bryan et al., 2019). A recent meta-analysis focused on adjustment to potential traumatic situations in the United States armed forces concluded that meaning in life plays a crucial role in adapting to traumatic events (Fischer et al., 2020). Meaning in life is negatively related to posttraumatic stress symptoms, and meaning in life interventions could aid in trauma recovery (Fischer et al., 2020).

Armed forces have implemented various programs aimed at increasing resilience, with only a few including components addressing meaning in life, and even fewer reporting efficacy results. For instance, within the Comprehensive Soldier Fitness (CSF2) program (Cornum et al., 2011), a meaning in life module developed by Pargament and Sweeney (2011) focuses on identifying personal values, purposes, and thoughts on meaning in life. Unfortunately, to date, no results have been reported regarding the effectiveness of this specific module.² In any case, these studies have been conducted in the context of the United States Army, and it is essential to explore the feasibility and acceptability of implementing such interventions in diverse cultural contexts such as Spanish-speaking populations.

The Present Study

Case studies play a crucial role in the initial stages of research, providing essential preliminary information that enhances the understanding of vital project components (Stake, 2003). For instance, before implementing a meaning in life intervention in our selected sample, it was imperative to em-

ploy this methodology. This approach enabled us to gain crucial insights into how a larger-scale intervention of this nature could operate effectively. The primary objective of this study is to explore, in a descriptive and exploratory manner, the potential individual benefits of a Meaning in Life Intervention (MLI). Our specific aims were as follows (1) Evaluate the Acceptability and Feasibility: Determine whether a meaning in life intervention is both acceptable and feasible within a non-clinical military context and group setting. (2) Identify Protocol Improvements: Identify areas within the intervention protocol that require refinement and improvement for optimal effectiveness. (3) Explore Benefits of Meaning Interventions: Undertake an exploratory analysis to understand trends concerning the benefits of meaning interventions. This encompassed assessing variables related to both work and overall well-being. It's important to note that this goal was exploratory, and we did not formulate specific hypotheses for this aspect of the study.

Method

Design of the study

We conducted a case series study within military units in Madrid, adhering to the Observational Studies in Epidemiology (STROBE) standardized guidelines for reporting observational studies. We adapted these guidelines specifically for our case series study, following the framework outlined by von Elm et al. (2008).

Participants

The participants were from the enlisted ranks of the Spanish Armed Forces. The 9 volunteers were randomly selected from the first participants enrolled in the program. Participation in the study was entirely voluntary, and no incentives or rewards were provided.

Measures

Following a demographic questionnaire, we administered the following pre- and post-intervention questionnaires, all employing a Likert-like frequency scale for responses.

Acceptability and Feasibility

Client Satisfaction Questionnaire (CSQ-8; Roberts et al., 1984) is a structured survey used to assess level of satisfaction with care. Items are scored on a Likert scale from 1 (low satisfaction) to 4 (high satisfaction) with different descriptors for each response point. Total scores range from 8 to 32, with higher scores indicating greater satisfaction. The questionnaire was adapted for the military context, tailored for individuals without specific health concerns. Relevant treatment-related terms were replaced with program-related lan-

² Although positive results in terms of resilience have been reported for the entire program (Lester et al., 2011), no results are available regarding the effectiveness of the module that included content in meaning in life

guage (See Table S3). It was followed by a questionnaire assessing preferences and the utility of the program, comprising seven questions. Two items assessed the perceived impact of the program on meaning in life and work (see Table 3). A third item evaluated the perceived effect of the program on personal well-being (see Table 3). Additionally, participants responded to four open-ended questions, prompting them to evaluate the program and offer suggestions for improvement (e.g., favorite program session, positive aspects, negative aspects, and recommendations for enhancement).

Meaning

Meaning in Life Questionnaire (MLQ; Steger et al., 2006, Góngora & Solano, 2011) consists of 10 questions rated on a 7-point Likert scale (from “absolutely untrue” to “absolutely true”). The research used the Spanish version of the questionnaire. This instrument is comprised two subscales measuring the presence of and search for meaning in life. Higher mean score on each subscale reflects higher levels of the presence and the search for meaning in life, respectively. Sample items: “My life has a clear sense of purpose” (*presence*) and, “I am always looking to find my life’s purpose” (*search*).

Work and Meaning Inventory (WAMI; Steger et al., 2012, Duarte et al., 2021) consists of 10 questions rated on a 5-point Likert scale (from “absolutely untrue” to “absolutely true”). The research used the Spanish version of the questionnaire. We used overall Meaningful Work score. Higher mean score reflects higher levels of meaningful work. Sample items: “I understand how my work contributes to my life’s meaning”.

Burnout and Engagement

Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981, Salanova et al., 2000) consists of 15 questions rated on a 7-point Likert scale (from “never” to “every day”). The research used the Spanish version of the questionnaire. This instrument measured burnout across three scales: five items assessed emotional exhaustion, four items evaluated cynicism, and six items measured professional efficacy. Sample items: “I am emotionally exhausted by my job” (*exhaustion*), “I have lost enthusiasm for my work” (cynicism) and, “I can effectively solve problems that arise in my work” (professional efficacy).

Utrecht Work Engagement Scale (UWES-9; Schaufeli & Bakker, 2003, Schaufeli et al., 2006). This scale consists of 9 questions rated on 7-point Likert scale (from “never” to “always or every day”). We used in our study the global score included nine items reflecting the three dimensions of work

engagement. The higher the average, the greater the work commitment. Sample item: “At my work, I feel that I am bursting with energy”

Well-Being and Depression

Pemberton Happiness Index (PHI; Hervas & Vázquez, 2013). It consists of 11 items related to remembered well-being, each with a 11-point Likert scale, and 10 items related to experienced well-being (positive and negative events that occurred the day before), with dichotomous response options (yes/no). The sum of these scales produced an integrative well-being index. Sample items: “I am very satisfied with my life” (*remembered well-being*) and “something I did made me proud” (*experienced well-being*).

Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001, Diez-Quevedo et al., 2001). This scale consists of 9 questions rated on 3-point Likert scale (from “not at all” to “nearly every day”), The PHQ-9 total score ranges from 0 to 27 (scores of 5–9 are classified as mild depression; 10–14 as moderate depression; 15–19 as moderately severe depression; ≥ 20 as severe depression). Sample item: “Little interest or pleasure in doing things”.

The Intervention

The meaning in life intervention comprised six two-hour sessions conducted in a face-to-face group format. These sessions were facilitated by a psychologist affiliated with the Armed Forces and were held at military facilities. The program’s structure included various tools designed to promote meaning in life. Additionally, participants engaged in brief mindfulness exercises throughout the sessions to enhance meaning and foster openness to introspection and self-knowledge (Chu & Mak, 2020). Importantly, the intervention’s design is applicable to workers across different sectors, that is, no contents are specific for military context. The content of each session is summarized in Table 1.

Procedure

To recruit participants, we initiated several promotional campaigns utilizing mailings, lectures, and posters within military units in Madrid. Interested participants received a study fact sheet and provided informed consent. Inclusion criteria necessitated active-duty status and voluntary participation in the program. Upon completion of the intervention, participants completed online questionnaires during their leisure time, along with the satisfaction questionnaire.

Table 1
Structure and contents of the meaning in life intervention (MLI)

Session 1	Developing mindfulness skills for a meaning in life (Chu et al., 2020) Meaning in Life Model (Martela & Steger, 2016) Exploring the strengths of character (Park et al., 2004) and sources of meaning in life (Littman & Niemec, 2016)
Session 2	Mindfulness exercise (Linehan, 1993) Identify ways to use strengths and enhance the meaning in life (Littman & Niemec, 2016) Develop an action plan to improve strengths
Session 3	Mindfulness exercise (Linehan, 1993) Exploring Personal Values (My 80th Birthday Speech; Harris, 2009) Recognise the importance of values in personal relationships Giving coherence and purpose to day-to-day experiences
Session 4	Mindfulness exercise (Linehan, 1993) Learn and apply the Meaning Work Model - SPIRE (Steger, 2017) Job crafting (Berg et al., 2013) Improving relationships satisfaction (Chaves et al., 2017)
Session 5	Coherence, purpose and importance in goals (Sheldon et al., 2002) Linking our strengths and values to our goals and purposes Visualization of our future best self (Burton & King, 2004)
Session 6	Mindfulness exercise (Linehan, 1993) Sharing action plan and goals with a partner and make it public through a narrative

Ethical aspects

All procedures carried out in studies involving human participants were conducted in accordance with the ethical standards set by the Complutense University research committee and were in compliance with the principles outlined in the 1964 Helsinki Declaration and its subsequent amendments, as well as other comparable ethical standards. The study received approval from the ethics committee of the School of Psychology at University of Madrid. All participants gave their written informed consent. Reference number: 2019/20-049

Analysis methods

All analyses were performed using SPSS. To assess the intervention's acceptability and feasibility, we evaluated attendance and participant satisfaction, as reported at the intervention's conclusion. For each study variable, mean and standard deviation were calculated. To determine whether individual changes were significant, the Reliable Change In-

dex (RCI) was employed. A separate RC index was computed for each measure using baseline and post-intervention data. Initially, we calculated the test-retest reliability coefficient for each measurement, from which the standard error of measurement was derived, following the methodology outlined by Jacobson and Truax. Subsequently, based on this formula, a 90% confidence interval was computed for each variable. The resulting cutoff values were rounded to the nearest whole number outside the 90% RC interval. A statistically significant change in performance on a measure was considered when the score fell outside the RC interval (Jacobson & Truax, 1992).

Results

Socio-demographic characteristics

The majority of the sample were men, aged between 40 and 45 years, with over 7 years of work experience (see Table 2).

Table 2
Participant's characteristics

	Demographics of Study Sample
Participants	9 volunteers from Spain's armed forces on active duty and stationed in Madrid
Gender	22% women and 78% men
Age (18-45 years)	55.56% were aged between 41 and 45 years 22.22% between 26 and 35 years 22.22% between 36 and 40 years
Educational Status	66% of the volunteers had completed secondary studies 17% had completed university studies 17% had completed primary schooling
Marital Status	66% had a long-term partner or are married 34% were single or in another situation
Participants Working Experience	33% had more than 20 years of service 33% between 14 and 20 years 34% between 7 and 13 years

Acceptability and feasibility

Participants demonstrated high satisfaction with the program, with scores on the Client Satisfaction Questionnaire (CSQ-8) ranging from 2.75 to 4. A significant 77.78% of participants scored higher than 3, indicating they were mostly satisfied (see Table 3). All nine participants completed the intervention, with an average attendance of over 5 sessions (see Table 3). Participants reported increased subjective well-

being and perceived a rise in both life and work meaning due to the program. Notably, 89% rated the program as very useful (scores 3-4), and 77.78% indicated significant improvements in both life and work meaning (scores higher than 4, see Table 3). Some participants suggested increasing session frequency and providing program materials in a notebook format, while others found the sessions too short (see Table S2).

Table 3

Acceptability and feasibility with the intervention and individual perception of the increase in Well-Being, Meaning in Life, Meaningful Work after the intervention

MLI	Attendance %	CSQ-8 (8-32)	Well-being (0-4)	Meaning in life (0-5)	Meaningful work (0-5)
P1	80%	30	3	4	4
P2	80%	27	3	5	4
P3	80%	32	4	5	5
P4	100%	28	3	4	4
P5	100%	28	3	4	4
P6	80%	22	2	3	2
P7	100%	31	4	5	4
P8	90%	29	4	5	5
P9	80%	22	3	3	3
<i>M</i>	87%	27.3	3.2	4.2	3.9
<i>(SD)</i>		3.7	0.7	0.9	1

Note. P: Participant, MLI: Meaning in Life intervention, *M*: Mean, *SD*: Standard deviation, CSQ-8: Client satisfaction questionnaire, Attendance: Percentage of group attendance at the intervention, the missing session was recovered individually, Well-being: *Do you think that the contents have helped you to improve your personal well-being?*, Meaning in life: *Do you think that the content has helped you clarify the things that are important and valuable in your life?*, Meaningful work: *Do you think that the contents have helped you find meaning in what you do at work?*

In the open-ended responses, participants highlighted that the program helped them reflect on life's meaning daily, identify personal values, and gain different perspectives (see Table S2).

Individual Participant Outcomes

In the case study format (see Table 4), individual outcomes for the nine participants were presented. Positive clinically reliable changes were denoted in bold, while negative changes were indicated in italics.

Meaning in Life

On average, scores for meaning in life presence slightly increased after the Meaning in Life Intervention (MLI). Regarding the search for meaning in life, scores decreased in 78% of participants, with subjects #2, #5, and #6 showing clinically reliable changes. Three participants had lower presence of meaning and higher search for meaning scores after the MLI, although these changes were not clinically reliable.

Meaningful Work

Participants reported a slight increase in work meaning after the intervention. Six out of nine participants experienced improvement, with subjects #4 and #8 showing clinically

reliable changes. Participant #9 reported a slight unreliable decrease.

Burnout and Work Engagement

Average burnout scores remained stable after the MLI, with four participants reporting a decrease, albeit only subject #7 showing a clinically reliable change. Cynicism scores increased slightly for most participants but were not reliable, except for subjects #7 and #9. Professional efficacy slightly improved for most, with subjects #3 and #8 displaying clinically reliable improvements.

Psychological Well-Being

Participants experienced a slight improvement in well-being after the intervention, with four participants reaching high levels of well-being. However, participant #1 reported a reliable decline.

Depression

Initial depression scores, close to mild depression, decreased significantly after the MLI. Four participants reported a decrease, with subjects #5 and #8 showing clinically reliable changes. Participants #4 and #7 reported slight increases, with only subject #7 displaying a clinically reliable change.

Table 4

Clinically reliable change between pretest and posttest individual mean scores in meaning in life intervention. bold, positive clinically reliable change, italic, negative clinically reliable change.

MLI		MLQ-P (5-35)	MLQ-S (5-35)	WAMI (10-50)	MBI-1 (0-6)	MBI-2 (0-6)	MBI-3 (0-6)	UWES- 9(0-6)	PHI (0-10)	PHQ-9_TOT (0-27)
P1M ₃	T1	25	18	38	1.8	1.3	4.5	4.7	8.1	8
	T2	23	22	39	2.2	2	4	4.9	6.5	6
P2W ₃	T1	26	15	38	1.4	0.5	5.5	5.7	8.6	0
	T2	31	13	39	1.2	0.5	6	4.8	8.8	0
P3M ₃	T1	26	21	40	2	1	3.3	4	8.7	1
	T2	26	18	40	2	1	4.3	3.9	8.8	0
P4M ₂	T1	29	16	29	1.8	1.8	4.2	3.9	7.3	2
	T2	29	15	34	2.2	2	4.5	4.4	7.3	5
P5M ₃	T1	28	17	46	1	0.3	5.5	5.4	8.4	6
	T2	33	13	47	0.8	0	5.5	5.8	9.3	2
P6W ₃	T1	22	18	34	1.2	1.3	5.5	5.1	8	3
	T2	26	10	34	1.4	1	4.8	4.1	8.3	3
P7M ₁	T1	33	22	43	2	<i>0.8</i>	5.5	4.4	8.9	<i>1</i>
	T2	30	23	44	1.2	2	5.5	5.4	9.6	5
P8M ₁	T1	26	34	34	2.8	4	4	2.8	7.1	10
	T2	26	27	41	2.6	5	5.3	2.8	8.3	2
P9M ₂	T1	22	23	35	2	<i>2.5</i>	3.8	3.8	4.1	10
	T2	19	27	34	2.4	<i>4.3</i>	4.5	3.2	4.2	10
TOTM	T1	26.3	20.4	37.4	1.8	1.5	4.6	4.4	8.4	4.6
(SD)		3.4	5.8	5.2	0.5	1.2	0.9	0.9	1.6	4
M	T2	27.2	19.2	39.2	1.8	1.9	4.9	4.3	8.7	3.9
(SD)		4.1	6.9	4.6	0.6	1.7	0.7	1	1.8	3.4

Note. P: Participant, M: Man, W: Woman, 1: Age range 26-35, 2: Age range 36-40, 3: 41-45, MLI: Meaning in life intervention, T1: Pre intervention, T2: Post intervention, , TOT: Total, M: Mean, SD: Standard deviation, MLQ-P: Meaning in life questionnaire, presence of meaning, MLQ-S: Searching for meaning, WAMI: The work and meaning inventory, MBI: Spanish version of Maslach Burnout Inventory, MBI1: Burnout, MBI2: Cynicism, MBI3: Professional efficacy, UWES-9: Work engagement, PHI: Pemberton happiness index, PHQ-9: Patient Health Questionnaire-9.

Discussion and conclusion

This study represents a pioneering endeavor, being the first to demonstrate the acceptability and feasibility of a meaning in life intervention among active Spanish military personnel. Participants' high satisfaction and exceptional attendance rate reflect the feasibility and acceptability, aligning with findings from comparable programs (Bryan et al., 2019). Considering the military context and discipline, participation was entirely voluntary, within a secure environment where individuals could opt to exit the program without the obligation to provide any explanation, and without facing any consequences.

The intervention's emphasis on exploring, reflecting, and understanding everyday experiences appeared instrumental in generating significance and enhancing meaning, corroborating the observations of Martela and Steger (2016). Notably, 22% of the participants experienced reliable increases in both meaningful work and professional efficacy after the intervention, underscoring the program's positive impact.

Regarding the results obtained from the burnout scale, no clinically significant changes were observed after the intervention. The scores remained within the medium-low range of burnout, as defined by Salanova et al. (2000). However, in the case of the cynicism scale, there was a post-intervention increase, although this increase was clinically

significant changes in only two participants. Cynicism scores were situated within the medium-high range, according to the criteria of Salanova et al. (2000).

To detect significant differences in these scales, it might be necessary to have lower initial scores, allowing for a more precise observation of short-term changes. Nevertheless, it is important to highlight that the lack of changes in burnout scales does not necessarily imply the absence of improvements in the participants' overall meaning in life and work satisfaction. Positive changes seem to have a certain independence from negative changes (Keyes, 2002).

The observed increase in cynicism scores can be interpreted as a necessary phase of reflection and introspection within the context of work-related meaning. This phenomenon might indicate a critical reevaluation of attitudes toward work, which, in turn, could be a precursor to positive changes in the perception of work and the overall meaning of life for the participants. Changes in cynicism need to be carefully monitored during the program to prevent potential adverse effects (Smith et al., 2018).

Having said that, these results suggest that analyzing cynicism, even in the absence of changes in other dimensions of burnout, can provide valuable insights into the evolution of occupational well-being and the sense of life in similar intervention contexts. At times, individuals, in their quest for a deeper sense of work, may go through a phase where they

become aware that their current way of experiencing it doesn't contribute significantly, or there might be conflicts in values that require attention and work (Boudreaux et al., 2013).

On the other hand, participants perceived significant improvements in well-being, resonating with studies emphasizing the link between meaning in life, meaningful work, and enhanced well-being (Dik et al., 2015; Steger, 2018).

Regarding meaning in life, while 33% of participants reliably increased in presence of meaning, 22% experienced a decrease in search for meaning, indicating complexities in enhancing these aspects. Such challenges align with literature suggesting the difficulty in modifying or enhancing meaning in life, especially in the general population (Steger & Kashdan, 2007). The intervention also demonstrated a tendency toward decreased depressive symptoms, although in a sample already displaying low depression scores pre-intervention.

In case series studies like this, individual variations, both positive and negative, are expected due to personal circumstances and unexpected life events. While some participants reported no differences or negative changes, these variations emphasize the importance of tailoring interventions to individual needs and contexts.

This study acts as an initial exploration of the intervention's acceptability and offers valuable qualitative insights for designing future, larger-scale studies and refining the intervention. For instance, participant feedback highlighted the need for simplified worksheets and easier access to content through a workbook format.

However, it is crucial to acknowledge the study's limitations. The methodology employed in case series studies may have certain constraints, including the absence of a control group for causal inference, selection bias, challenges in generalizing results, and a lack of randomization to mitigate biases. Nevertheless, it offers valuable insights for implementing experimental methodologies in future research. For instance, it provides perspectives on participant satisfaction with the intervention content, the format of the content, and

the feasibility of exploring life meaning in a military sample. Case studies play a pivotal role in the initial stages of research, providing essential preliminary information that enhances the understanding of vital project components (Stake, 2003). Before implementing a meaning in life intervention in our selected sample, it was imperative to employ this methodology. However, the limited number of participants restricts the generalizability of the findings, necessitating replication in larger samples, preferably with control groups. Moreover, it is essential to explore how organizational contexts and military environments influence program adherence in subsequent studies. Despite voluntary participation, military structures might have influenced attendance, indicating the need for further research in diverse contexts.

In conclusion, amid the current societal challenges, meaning-focused interventions, particularly those emphasizing meaningful work, demonstrate promise in enhancing meaning in life and well-being. This case series provides encouraging evidence for the acceptability and feasibility of a meaning in life intervention within the Spanish military. The positive trends observed, particularly in meaningful work, indicate the potential impact on meaning in life, professional efficacy, and depression prevention. Future studies are necessary to confirm these trends and validate the intervention's effectiveness across different socio-economic and organizational contexts. Additionally, longitudinal studies with follow-up assessments are vital to assess the stability of the improvements over time.

Complementary information

Conflict of interest disclosure.- The authors declare that they have no conflict of interest.

Funding.- There has been no funding for the study.

Acknowledgment.- The authors gratefully thank the participants from the Spanish armed forces.

Data availability statement.- Data will be made available upon reasonable request.

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Table S1

Reliable change index values (RCI) by pair-wise comparison. time 1-time 2 at each time. green: significant increase between times ($p < .05$) . red: significant decrease between times ($p < .05$)

MLI	MLQ-P	MLQ-S	WAMI	MBI-1	MBI-2	MBI-3	UWES-9	PHI	PHQ-9
P1	-1.07	1.27	0.43	1.70	1.24	-1.14	0.28	-2.53	-1.12
P2	2.68	-0.63	0.43	-0.85	0.00	1.14	-1.12	0.40	0.00
P3	0.00	-0.95	0.00	0.00	0.00	2.28	-0.14	0.13	-0.56
P4	0.00	-0.31	2.15	1.70	0.41	0.75	0.70	0.13	1.68
P5	2.68	-1.27	0.43	-0.85	-0.41	0.00	0.42	1.33	-2.24
P6	2.14	-2.54	0.00	0.85	-0.41	-1.53	-1.26	0.40	0.00
P7	-1.60	0.31	0.43	-3.41	2.07	0.00	1.26	1.06	2.24
P8	0.00	-2.22	3.01	-0.85	1.66	2.97	0.00	1.86	-4.49
P9	-1.60	1.27	-0.43	1.70	2.90	1.53	-0.70	0.32	0.00
%Reliable Change Index+	33%	22%	22%	11%		22%			22%
%Reliable Change Index					22%			11%	11%

Note: P: Participant, MLI: Meaning in life intervention, MLQ-P: Meaning in life questionnaire, presence of meaning, MLQ-S: Searching for meaning, WAMI: The work and meaning inventory, MBI: Spanish version of Maslach Burnout Inventory, MBI1: Burnout, MBI2: Cynicism, MBI3: Professional efficacy, UWES-9: Work engagement, PHI: Pemberton happiness index, PHQ-9: Patient Health Questionnaire-9.

Table S2

Program feedback

	Most valued session	What the program has given me	What I didn't like about the program	Program improvement suggestions
P1	4	A space for reflection to contemplate the direction of my life	None	More sessions
P2	3	What's best is that I quickly realized what truly matters in my life.		Being once a week, it's insufficient
P3	4	I've gained in personal knowledge	None	More time.
P4	3	Meditation, relaxation. It was the most effective moment as it allowed me to connect with my purpose	Limited time	Due to our busy work schedules, I don't mind.
P5	3	Honesty in group work and recognizing our life direction	Short. Limited time	More sessions
P6	3	I've realized I have to find my own meaning in life's little things	I was expecting them to give me the solution, but I feel more empowered to improve.	Fewer exercises and more reflection.
P7	4	The respect among participants and the good atmosphere in the group space	Initially, doing it with people I know felt embarrassing.	Go deeper with new courses.
P8	4	It helps us believe in ourselves, not to lose sight of our purposes.	Displaying feelings or emotions in front of others.	Being able to bind all the given materials; at the end, I got confused with all the handouts.
P9	3	Identifying your most important values and strengths, and learning how to apply them to enhance meaning in life	Few sessions	Maybe make the sessions more interactive, like a discussion.

Table S3a*Spanish Version of the Adaptation of CSQ-8*

CSQ-8 Spanish adaptation for the program				
1. ¿Cómo evalúa la calidad del programa que ha recibido?	4. Excelente	3. Buena	2. Regular	1. Mala
2. ¿Recibió el tipo de programa que quería (cubrió sus expectativas)?	4. Definitivamente sí	3. Sí, generalmente	2. No, no mucho	1. Definitivamente no
3. ¿Hasta qué punto este programa ha cubierto sus necesidades?	4. Todas	3. La mayoría	2. Solamente unas pocas	1. Ninguna
4. Si un amigo/a necesita un programa parecido ¿podría recomendarle este programa?	4. Definitivamente sí	3. Probablemente sí	2. Probablemente no	1. Definitivamente no
5. ¿Está satisfecho con la ayuda que se le ha dado en el programa?	4. Estoy muy satisfecho	3. Estoy satisfecho	2. Me es indiferente o estoy levemente satisfecho	1. Estoy muy insatisfecho
6. ¿La ayuda que ha recibido en el programa le ha ayudado a mejorar algo en su vida?	4. Sí, me ha ayudado mucho	3. Sí, me ha ayudado más o menos	2. No, realmente no me ha ayudado	1. No, ha empeorado mi vida
7. En general, ¿está satisfecho con el servicio recibido? (material entregado, tiempo dedicado a las sesiones, etc)?	4. Estoy muy satisfecho	3. Estoy levemente satisfecho	2. Me es indiferente o estoy levemente satisfecho	1. Estoy muy insatisfecho
8. Si fuera a buscar este tipo de programa otra vez ¿volvería a utilizar este programa?	4. Definitivamente sí	3. Probablemente sí	2. Probablemente no	1. Definitivamente no

Table S3b*English Version of the Adaptation of CSQ-8*

CSQ-8 English adaptation for the program				
1. How do you rate the quality of the program you have received?	4. Excellent	3. Good	2. Fair	1. Poor
2. Did you receive the type of program you wanted (did it meet your expectations)?	4. Definitely yes	3. Yes, generally	2. No, not much	1. Definitely not
3. To what extent has this program met your needs?	4. All	3. Most of them	2. Only a few	1. None
4. If a friend needs a similar program, could you recommend this program to them?	4. Definitely yes	3. Probably yes	2. Probably not	1. Definitely not
5. Are you satisfied with the help you have received in the program?	4. I am very satisfied	3. I am satisfied	2. I am indifferent or slightly satisfied	1. I am very dissatisfied
6. Has the help you received in the program helped you improve something in your life?	4. Yes, it has helped me a lot	3. Yes, it has helped me somewhat	2. No, it really hasn't helped me	1. No, it has made my life worse
7. Overall, are you satisfied with the service received?	4. I am very satisfied	3. I am slightly satisfied	2. I am indifferent or slightly satisfied	1. I am very dissatisfied
8. If you were to look for this type of program again, would you use this program again?	4. Definitely yes	3. Probably yes	2. Probably not	1. Definitely not