SAPIENZA
UNIVERSITÀ EDITRICE

E-ISSN 2724-2943
ISSN 2723-973X

Psychology Hub (2023)
XL, 3, 67-84

Article info

Submitted: 08 February 2023
Accepted: 25 October 2023
DOI: 10.13133/2724-2943/17997

Mediating Role of Psychological Flexibility between Optimism and Psychological Well-Being among Defence Personnel in India

Smarika Dalal[1], and Sandeep Singh[1]

[1] *Department of Applied Psychology, Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India*

Abstract

Defence forces, worldwide, have undergone modernization while upgrading their weapon system and machinery. But, the most important weapon of defence forces are its human resources and their psychological strength in the face of challenges and adversaries. The aim of positive psychology is to enhance and sustain human psychological well-being. This study aims to explore the path mechanism and expand the current research on the action pathway existing between optimism and psychological well-being among defence personnel. The present research work also explores the mediational role of psychological flexibility (PF) between optimism and psychological well-being (PWB). To explore the relationship, a sample of Indian defence personnel (n=102) was taken. The participants' age ranged from 21 to 58 (M = 43.42, SD = 11.21). Instruments administered on defence personnel in the study were Life Orientation Test – Revised (Scheir et al., 1994), Acceptance and Action Questionnaire – II (Bond et al., 2011) and Ryff's Psychological well-being scale (Ryff, 1989). Correlational analysis revealed positive and significant correlation between optimism and PWB, between optimism and PF as well as between PF and PWB. Mediation analysis suggests that PF partially and significantly mediates the relationship between optimism and psychological well-being. PF acted as partial mediator between optimism and "personal growth", "positive relations with others" and "self-acceptance". The mediatory function of PF in relationship between optimism and "autonomy", "environmental mastery" and "purpose in life" was not significant. An alternative model was tested by adding age and gender as co-variate to the mediation model. The relationships among the variables hold even when age and gender were added to the model. Findings extenuate the importance of integrating optimism and psychological flexibility while tailoring interventions to promote psychological well-being among defence personnel.

Keywords: optimism, psychological flexibility, psychological well-being, mediation analysis, defence personnel

*Corresponding author.
Smarika Dalal
Department of Applied Psychology,
Guru Jambheshwar University of Science
and Technology, Hisar, Haryana, India
E-mail: smarika.dalal1@gmail.com
(S. Dalal)

Introduction

Positive Psychology, launched as the "Manhattan Project" in 1998 by Martin Seligman aimed to focus on a deeper understanding of human psychology. The objective was to develop mental strength among individuals so that they are able to cope with stress and trauma, make their lives meaningful, and be satisfied (Weitzman, 2021). According to Peterson (2006), "the scientific study of what goes right in life, from birth to death and at all stops in between" (p. 4) gives a clear idea about what positive psychology entails. Positive psychology highlights positive states, positive attributes, and positive institutions. It is about excellence and successful adaptability in all facets of life. Positive psychology seeks to strengthen inner resources, thereby assisting people to thrive through their day-to-day ordeals and flourish despite the challenges. Positive psychology is often referred to as the "study of ordinary strengths and virtues" since it focuses on emotional balance and productive thinking as opposed to symptomatic therapy and treatment (Sheldon & King, 2001). Happiness and well-being are acknowledged by positive psychology as "essential human skills" (Davidson et al., 2005).

Well-being is one of the topics that has been discussed a lot in the past decade. Though, there is still no agreement on any one definition of well-being, the aspects of well-being are expanding. Well-being now comprises physical well-being, psychological well-being (PWB), and spiritual well-being (Stoewen, 2017). Numerous studies have been carried out to establish that optimism and well-being are related (Conversano et al., 2010; Scheier & Carver, 1992). As evidenced from academic literature, psychological flexibility (PF) is also linked to better well-being (Howell & Demuynck, 2021; Usubini et al., 2021). But what still remains uncertain is the relationship among the three variables, viz., optimism, PF, and PWB. The investigations carried out have mostly been unidirectional, where the predictor-criterion relationship has been established between two or more variables. As far as our knowledge goes, there have been few scientific studies conducted that study the action mechanism between optimism and psychological well-being (Ferguson & Goodwin, 2010; Sabouripour et al., 2021) and none that explore the action mechanism constituting PF as a potential mediator between optimism and PWB. The nature of responsibilities in the defence sector requires psychological flexibility (Bryan et al., 2015), since the conditions and situations are more unpredictable (Mukherjee & Kumar, 2021). Among the defence personnel, the studies have not been conclusive regarding their psychological well-being. Furthermore, there is a dearth of scientific reporting regarding mental health issues in the Indian Army (Sharma, 2015). Investigating the mechanisms underlying the link between optimism and PWB among defence personnel in India, is the aim of this study. The research aims to study how PF mediates the relationship between optimism and PWB and all its sub-scales. The defence sector is the backbone of every nation. The overwhelming array of difficulties faced by defence personnel who face a higher psychological risk from exposure during combat challenges, including physical and mental fatigue, demanding work environments, harsh climates, prolonged separation from family and threat to life have led to the rise of positive psychology in the field of defence. The stressful conditions, harsh environment and unpredictability of the job makes it a necessity that the defence personnel are not just equipped with the best machinery but also with psychological strength that can aid them during the war and peace, alike.

In the study undertaken, the variables of interest are optimism as predictor variable, psychological flexibility as a mediator variable and psychological well-being (and its sub-scales) as criterion variable. Optimism plays a critical role in coping with stressful situations. In a study conducted by Lester et al. (2022) on 908,096 U.S. army soldiers, optimism predicts awards for performance and heroism. According to research by Hassett et al. (2019), soldiers with low pre-deployment optimism may be more likely to have new post-deployment symptoms, and they may benefit from scalable therapies that aim to boost optimism. Bryan et al. (2013) found that optimism was significantly associated with less severe depression, hopelessness, and suicidal ideations in their studies involving 97 active air force members seeking treatment. Also, optimism was found to reduce the negative consequences of hopelessness on the sample. Optimism has also been found to predict traits like resilience in military personnel (Reyes *et al.*, 2020; Jaeschke, 2016), satisfaction in female military partners (Cabrera-Sanchez *et al.*, 2017) and protects military veterans against the negative impacts of wartime stress on their mental health symptoms and ability to work (Thomas *et al.*, 2011).

Psychological flexibility can be defined as the "capacity to persist or to change behaviour in a way that includes conscious and open contact with one's thoughts and feelings, appreciates what the situation can afford and serves one's goals and values" (McCracken & Morley, 2014). Psychological flexibility has been found to significantly predict post-traumatic stress disorder related resilience and the author(s) have suggested that interventions that improve psychological benefits may benefit veterans (Meyer *et al.*, 2018). Ebrahimabad and Mamizade (2018) found in their study on 162 soldiers that psychological flexibility is a significant predictor of psychological well-being. Bryan *et al.* (2015) demonstrated in his study on 168 active duty Air Force personnel that psychological flexibility acts as a buffer against emotional distress and suicidal ideation and higher PF scores corresponded to reporting of lower post-traumatic stress and depression. The role of psychological flexibility has been investigated with various mental health indicators (Abramson *et al.*, 1989; Ehring *et al.*, 2008; Pettit *et al.*, 2009) but its role in improving the defence personnel goes largely unexamined. The studies on mental health and psychological well-being of the defence personnel have reported that PTSD and depression are commonly reported by soldiers returning from operational deployment (Renshaw, 2011). Since 2008, the suicide rate among U.S. Army personnel topped that of the adjusted general population (Kuehn, 2009). According to news report, over 800 servicemen have committed suicide over the past five years, in India ("*Over 800 suicide cases reported in Armed forces in last five years: Government"*, 2022). The increasing cases of suicide among defence personnel in India as well as around the world is suggestive of the fact that the frequency of mental disorders is rising. The likelihood that escalating mental illness rates are a significant factor in the rise in suicide attempts is increased by the rising suicide rates among Army soldiers.

(Bachynski *et al.*, 2012). The alarming rates of depreciating mental health of the organization which is considered one of the strongest pillars of a nation and is imperative to national security is a reason enough to analyse the depth of the problem and come up with mental health policies and interventions that can assist in curbing the increasing rates of suicide and psychological health issues faced by the defence personnel. This paper aims to study the importance of two psychological variables, *viz, optimism and psychological flexibility in enhancing the psychological well-being of defence personnel.*

Optimism

Optimism reveals how much hope people have for favourable outcomes in the future. Optimism encompasses two concepts that are related to each other: one is the propensity to hope, while the other is the propensity to believe that we live in the "best of all possible worlds" (in the words of German philosopher Gottfried Wilhelm Leibniz). A higher level of optimism indicates better subjective well-being when faced with adversity (Mishra, 2013; Taylor *et al.*, 1992; Scheier *et al.*, 1989). Similar findings in other research link optimism to a higher engagement coping level, lower avoidance levels, or disengagement coping. Optimism has been conceptualised as an "attributional style" as well as "dispositional optimism" (Conversano et al., 2010). It is considered that dispositional optimism is a rather stable component of personality. In their investigations, Scheier and Carver (1985) proposed the "disposition" towards optimism, also known as "dispositional optimism," which they defined as a quality of a balanced and stable personality that influences how people process current, past, and future events in life. Optimistic people have a positive attitude on daily events. In the study conducted from this perspective, positive correlations between optimism and physical and mental well-being have been established. Positive people are more likely to develop more effective coping strategies, have protective attitudes, and be more stress-resistant. Studies by Peterson and Seligman (1987) that were primarily focused on understanding the psychological underpinnings of pessimism led to the conception of its opposite, optimism, as an "attributional style", characterised by the propensity to believe that negative events are not constant (the event will not repeat itself), external (the individual should not be blamed for the event), and specific (the event is "specific" and limited, thereby it would not have any impact on any other aspect of the individual's life). Positive events, in the opinion of optimists, are more reliable and common than negative ones. They believe they can prevent problems from occurring in their daily lives, and because of this, they are more able to handle stressful situations than pessimists (Aspinwall et al., 2001; Peterson & De Avila, 1995).

Psychological Flexibility

Psychological flexibility (PF) can be explained as a propensity to act in various situations such that the response or action encourages the pursuit of activities that are goal-oriented. It is an important ability to have when facing challenges. In the words of Hayes et al. (2004a, 2004b), who originally conceptualised PF as "the ability to change or persist with functional behavioural classes when doing so serves valued ends" and also stressed the necessity of flexibility for one's healthy functioning. Six basic processes ("hexaflex") have been recognised as being essential to psychological flexibility: acceptance, defusion, self-as-context, touch with the present moment, values, and committed action (McCracken and Morley, 2014). Acceptance and defusion are examples of the "open response style," which allows for the adoption of a different response style in which one actively participates in life and freely chooses pursuits that are significant to oneself, even in the face of adverse emotions or stress (Goubert & Trampetter, 2017). The "engaged response style" is represented by the processes of values and committed action, while the "centred response style," which is closely related to mindfulness, is comprised of the processes of self-as-context and touch with the present (Goubert & Trampetter, 2017).

Psychological well-being

Psychological well-being (PWB), according to Ryff (1989), is related to emotions and satisfaction in life. It can be explained on the basis of the difference between "emotions" (positive and negative) and "life satisfaction" (Andrews, 1974; Bryant & Veroff, 1982; Stock *et al.*, 1986). In 1995, Ryff created a model of psychological well-being that synthesised several theoretical viewpoints into a single, cogent theory. This model had a significant scientific influence and stimulated a lot of well-being-related research. In Ryff's conceptualization (Keyes et al., 2002; Ryff, 2018), psychological well-being focuses on the realisation of human potential, human flourishing, growth, and self-realisation (i.e., eudaimonic well-being), rather than just the experience of positive affect and happiness (i.e., hedonic well-being). The operationalization of psychological well-being involves a multidimensional construct with six distinct components: autonomy (the ability of an individual to keep their identity in a variety of contexts and circumstances with tenacity, independence, and personal authority), environmental mastery (the efficiency of a person in handling and managing their everyday responsibilities), This aspect is closely linked to the individual's locus of control, sense of self-efficacy, and ability to create circumstances that allow them to fulfil their wants and desires), purpose in life (the ability of a person to set goals, establish goals keep up their motivation to attain them, and give their life meaning), positive relationships with others (the ability of an individual to uphold close and stable relationships), personal growth (the ability of a person to change, realise their potential, and evolve through constructive learning), and self-acceptance (cultivating a positive outlook on oneself) (Ryff & Keyes 1995; Keyes et al., 2002), and is defined from a eudaimonic perspective as a state of optimal human functioning that involves realising one's own potential and true self. Ryff's six-factor model of well-being has drawn criticism in research by Springer and Hauser (2006) because, even after removing many methodological sources of confounding, the dimensions still showed significant overlap. Ryff and Singer (2006) analysed data from five different study types, including factorial validity, psychological correlates, sociodemographic correlates, biological correlates, and intervention studies,

and concluded that the six dimensions are distinct. Despite having high intercorrelations, the dimensions' distinctiveness (self-acceptance and environmental mastery [.76] and self-acceptance and life purpose [.72]) was justified by the differences in how they interacted with other dimensions and how they changed as people aged.

Despite the controversies, research has claimed that PWB is associated with more successful marriages (Kim & McKenry, 2002), better income (Kaplan *et al.*, 2008), more creative ideas (Ghorbani & Kazemi-zahrani, 2015), and stronger immunity (Lyubomirsky et al., 2005). Psychological well-being can play a protective role in so many aspects of life that it becomes essential to elucidate the mechanisms that affect our capacity to achieve and maintain PWB. This may be rather important to develop effective strategies for the promotion of overall well-being and preventing psychological disorders. The multi-dimensionality of PWB needs to be further explored to confirm whether the six dimensions of PWB underlie the unidimensional PWB.

The relationship between optimism and psychological well-being

According to research, optimism is a predictor of well-being (Hochhausen *et al.*, 2007, Rand *et al.*, 2020). Optimism is an important predictor of changes in perceived stress, social support, loneliness, and depression (Scheier & Carver, 1992). It was revealed that optimism and PWB sub-scales are positively correlated, and an inverse relationship was found between pessimism and various sub-scales of PWB (Augusto-Landa *et al.*, 2011). A study on police officers suggested that optimism and PWB are significantly and positively correlated (Padhy *et al.*, 2015). The same was concluded in other studies as well, where a positive correlation was confirmed between optimism and PWB (e.g., Parveen *et al.*, 2016; Schweizer *et al.*, 1999). Dispositional optimism has also served as a significant moderator between stress and PWB (Chang, 1998). Optimism and hope are significantly correlated, and optimism has a significant and positive correlation with PWB and is negatively linked to psychological distress (Jahanara, 2017). The results associating optimism with lower psychological distress have been confirmed in other research studies as well (e.g., Taylor *et al.,* 1992). Along with other variables (gratitude, hope, and life satisfaction), optimism accounts for 51 percent of the variance in PWB (Kardas *et al.*, 2019). When a sample of parents of cancer-stricken kids was collected, it was found that optimism had a significant correlation with satisfaction with life, "subjective health perception, anxiety, and depression". Optimism interventions could even prove to be an effective source of coping with adverse conditions within the population (Fotiadou *et al.*, 2008). In a research study conducted, it was found that those with higher optimism levels and higher social support perceived their physical and psychological well-being regardless of the levels of stress reported (Sumi, 1997).

The relationship between optimism and psychological flexibility

Despite the fact that it is significant to emphasise the link between PF and optimism (Woldgabreal *et al.,* 2016), only a few researchers have actually studied the relationship between them. Arslan et al. (2021) found that psychological inflexibility and optimism-pessimism mediated the effect of coronavirus stress on psychological health in their study on adults. Additionally, optimism-pessimism determined adult psychological health through psychological inflexibility. In-depth research is required to be conducted in this field. Towsyfyan and Hossein Sabet (2017) have emphasised how effective acceptance and commitment therapy (ACT) has been in increasing levels of optimism for people who have major depressive disorders and also on the contribution of PF towards increasing optimism (Woldgabreal *et al.,* 2016). Higher is the level of psychological inflexibility, higher is the level of pessimism (Masuda and Latzman, 2011).

The relationship between psychological flexibility and psychological well-being

PF has been linked with well-being significantly across populations, including breast cancer patients (Deledda *et al.*, 2015), the LGB group (Chan *et al.*, 2021), and sexual minority employees (Levin *et al.*, 2015). It is closely linked to both "hedonic" and "eudaimonic" well-being (Howell *et al.*, 2021). There is enough evidence to support the role of PF as a predictor of PWB (Wersebe *et al.*, 2018; Bohlmeijer et al., 2011; Fledderus et al., 2010). Through research studies, it was confirmed that the role played by psychological flexibility in explaining PWB is significant (Usubini *et al.*, 2021). PF has been linked to positive health outcomes in a number of clinical disorders (Powers *et al.*, 2009; Kashdan & Rottenberg, 2010). PF also mediates the relationship between negative emotions and well-being during pandemics (Wąsowicz *et al.,* 2021). Among the diabetes-II population, psychological flexibility was associated with greater well-being. Also, the positive perception of change contributes significantly to variance in well-being (Maor *et al.*, 2021). Psychological flexibility also had similar positive outcomes in the obese population (Cattivelli et al., 2018). According to research by Arslan and Allen (2021), developing psychological flexibility is crucial for enhancing well-being in the face of adversity.

Among the student population, PF has a major role in the prediction of PWB (Imani *et al.*, 2017). In a study conducted on the military population, it was demonstrated that psychological flexibility had a significant association with psychological well-being (Ebrahimabad *et al.*, 2018). It consistently moderates the association between stress and health outcomes, including "physical health, mental health, and well-being" (Gloster *et al.*, 2017). It was discovered that gains in psychological flexibility and well-being were maintained even after a one-year follow-up period during an eight-week programme based on ACT principles to reduce "burnout-related ill-being" and enhance well-being. Furthermore, psychological flexibility mediated the changes in all factors, including "burnout, well-being, and psychological symptoms" (Puolakanaho *et al.*, 2020).

Psychological flexibility in an individual does not just ensure the well-being of the individual; rather, it has a major impact on others as well. Increased psychological flexibility has been linked to better relationships because it increases positive affect and decreases negative affect (Twiselton *et al.*, 2020). Levels of youth "internalising and externalising" difficulties among the children

are reduced by "parenting-specific psychological flexibility" through "adaptive parenting techniques" (Brassell *et al.*, 2016). More support for psychological flexibility can be gained from the research studies on psychological inflexibility, which is associated with various clinical disorders including "stress, depression, substance abuse, eating disorder, catastrophizing, job burnout and work absenteeism" (Bluett *et al.*, 2016; de Boer *et al.*, 2014; Lloyd et al., 2013; Luoma et al., 2011).

The present study

The present study is exploratory in nature where the author(s) have made an effort to research the mediation role of PF between optimism and PWB (and its sub-scales). PWB has an influence on several facets of life, so it is crucial to understand the factors that may assist in achieving PWB. The study also aims to expand the research on the action mechanism from optimism to various dimensions of PWB. Thus, the study explores how the various dimensions of PWB will be determined by optimism as a predictor and PF as a mediator variable. The relationship between some of the variables has been thoroughly researched (psychological flexibility and psychological well-being; optimism and psychological well-being), but there is a lack of evidence for the relationship between optimism and psychological flexibility. The research throwing light on the direction of the relationship between optimism and PF is still in its nascent stages, and thereby, no definitive conclusion can be reached. Thus, the model chosen is one of the many alternative models present. The current study is limited to exploring the hypothesised model. The research evidence presented, on which we have based our hypothesised model (Fig. 1a), studies the mediating role of psychological flexibility between optimism and PWB (Fig. 1a) as well as each component of PWB (Fig. 1b). Based on the research, the following hypotheses are formed: (a) Optimism shall be positively and significantly associated with psychological flexibility; (b) Psychological flexibility shall be positively and significantly associated with psychological well-being; (c) Optimism shall be positively and significantly associated with psychological well-being; (d) Psychological flexibility shall mediate the relationship between optimism and psychological well-being; (e) Psychological flexibility shall mediate the relationship between optimism and autonomy; (f) Psychological flexibility shall mediate the relationship between optimism and environmental mastery; (g) Psychological flexibility shall mediate the relationship between optimism and personal growth; (h) Psychological flexibility shall mediate the relationship between optimism and positive relations with others; (i) Psychological flexibility shall mediate the relationship between optimism and purpose in life; and (j) Psychological flexibility shall mediate the relationship between optimism and self-acceptance.

Fig. 1a. Hypothesised model: Psychological flexibility mediates the relationship between optimism and PWB

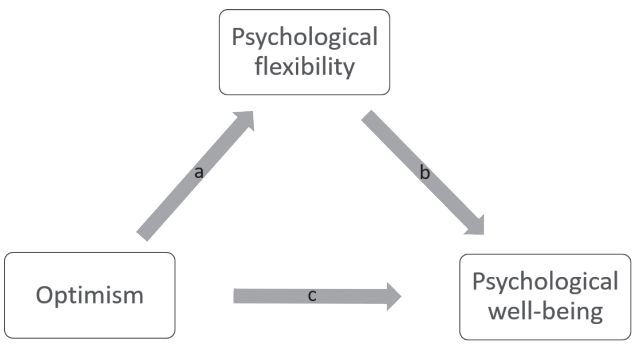
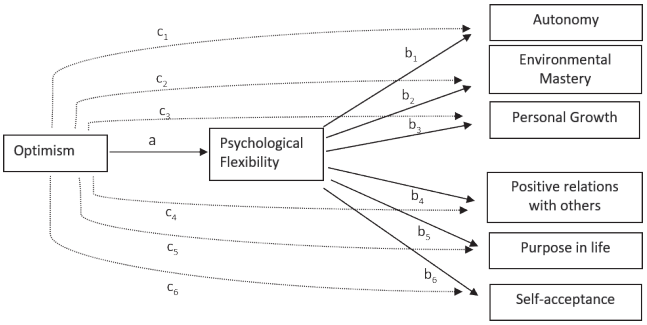


Fig. 1b. Mediational function of PF between optimism and sub-scales of PWB



Method

Participants and Procedure

In this research study, one hundred and two defence personnel from all around India participated. The snowball sampling technique was employed to reach the respondents for the study. Ages lie in the range of 21 to 58, with M = 43.42 and SD = 11.21. The respondents, at the time the study was conducted, were serving in the Indian Defence Forces (Indian Army, Indian Navy, and Indian Air Force) and belonged to the commissioned officer rank. The personnel belonged to different units spread across India. The language of all the instruments used in the survey was English. The administration of the questionnaires was done both offline and online. Data collection was done offline, where the participants could be reached in person. In the offline mode, the participants were administered the questionnaire in paper-and-pencil format. Data was also collected online by generating a questionnaire link and sending the link to the participants via e-mail and instant messaging apps. The demographic and service characteristics of the sample are shown below in Table 1.

Tab. 1. Participants' demographic and service characteristics

	N	Valid %
Gender		
Male	95	93.1
Female	7	6.9
Wing		
Indian Army	82	80.4
Indian Navy	7	6.9
Indian Air-force	13	12.7
Age		
<= 25	13	12.7
26-35	12	11.8
36-45	20	19.6
46-55	43	42.2
>55	14	13.7

Self-report Measures:

Life Orientation Test – Revised

The Life Orientation Test-Revised (LOT-R) given by Scheier et al. (1994) is a 10-item scale, out of which 4 are filler items. Items 3, 7, and 9 are reverse scored, or they may be scored separately for measuring pessimism (e.g., "If something can go wrong for me, it will"), while items 1, 4, and 10 are measures of optimism (e.g., "In uncertain times, I usually expect the best"). Items 2, 5, 6, and 8 are filler items. Before final scoring, items 3, 7, and 9 are to be reverse scored (0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0). For instance, if a participant responds to item 9 ("I rarely count on good things happening to me") with "Agree", the respondent will be given a score of 3, but prior to final scoring to get the score for dispositional optimism, the score of the participant will be changed to 1. The scores for each of the six items are then added together to get the LOT-R scores. Different levels of optimism are indicated by scores between 0 and 24, with higher scores indicating greater levels of optimism. By calculating Cronbach's alpha, reliability for the LOT-R was evaluated (.76), and test-retest reliability with a four-week interval was tested (.79), indicating satisfactory stability over time. The convergent and discriminant validity of LOT-R with neuroticism (measured by EPQ), self-mastery, self-esteem, trait anxiety and original LOT were modestly established. Differences in correlation between men and women were negligible.

Acceptance and Action Questionnaire – II

Acceptance and Action Questionnaire II (AAQII) given by Bond et al. (2011 consists of seven items that are answered on a Likert-type scale ranging from 1 ("Never true") to 7 ("Always true"). It was originally designed to measure "experiential avoidance," but the authors also suggested that it was a measure of psychological flexibility (or inflexibility). The scoring is done by adding all the rated responses. The items have been framed such that higher scores indicate higher psychological inflexibility (e.g., "My painful experiences and memories make it difficult for me to live a life that I would value,", "Emotions cause problems in my life"). The Cronbach's alpha (.88) was calculated to assess reliability, and the test-retest reliability (.81 and.79) was calculated at three and twelve months, respectively. In the present study, the authors have re-coded the questionnaire such that higher scores indicate higher psychological flexibility and lower scores on the test indicate lower psychological flexibility, for the ease of understanding of the readers. The validity of the tool was assessed by using other validated tools such as Beck Depression Inventory- second edition, Beck Anxiety Inventory, Depression Anxiety Stress Scales, General Health Questionnaire, Global Severity Index of the Symptoms Checklist, White Bear Suppression Inventory, General job satisfaction scale and Marlowe-Crown social desirability scale. The convergent validity was established by positive and high correlation with White Bear Suppression Inventory and its no significant association with social desirability establishes its discriminant validity.

Ryff's Psychological well-being scale

The psychological well-being scale (42-item version) given by Ryff (1989) has six subscales, representing six factors, viz., "autonomy", "environmental mastery", "personal growth", "positive relations with others", "purpose in life," and "self-acceptance," where each dimension is measured by seven items. On a six-point scale, from 1 ("strongly disagree") to 6 ("strongly agree"), participants must rate each item. The questionnaire has both positively and negatively worded items for each of the six dimensions. E.g., for *"self-acceptance"*, "When I look at the story of my life, I am pleased with how things have turned out." and "In many ways, I feel disappointed about my achievements in life." (R). For "*positive relations with others",* "people would describe me as a giving person, willing to share my time with others." and "maintaining close relationships has been difficult and frustrating for me." (R). For *"autonomy,",* "I have confidence in my own opinions, even if they are different from the way most other people think." and "I tend to be influenced by people with strong opinions." (R). For *"environmental mastery",* "In general, I feel I am in charge of the situation in which I live." and "The demands of everyday life often get me down." (R). For *"purpose in life",* "Some people wander aimlessly through life, but I am not one of them." and "I sometimes feel as if I've done all there is to do in life." (R). For *"personal growth",* "For me, life has been a continuous process of learning, changing, and growth." and "I gave up trying to make big improvements or changes in my life a long time ago." (R). The R in brackets stands for items that are reverse-coded. The scores are added together for individual dimensions, and the total psychological well-being score is achieved by summing up the scores for all six dimensions. Greater levels of psychological well-being are indicated by higher scores. The six scales exhibit Cronbach alpha (ranging from .86 to .93) and test-retest reliability (ranging from .81 to .88) over a six-week period. The six dimensions were correlated with the previous measures of well-being and ill-being to establish convergent and discriminant validity. All correlations of the scale with measures of well-being were positive and significant and with measures of ill-being were negative and significant.

Results

Before running the analysis, we must first examine our variables to determine if mediation is appropriate. The assumptions for multiple regression also apply to mediation analysis in the present study. The assumptions for linearity, normality, multicollinearity, homoscedasticity and homogeneity of variance were established before starting the research.

Descriptive statistics and correlational analysis

Table 2 shows the descriptive statistics (mean (M), standard deviation (SD), and standard error (SE)) for each variable and also displays the correlations between various variables under study.

Hypothesis a: Optimism would be positively and significantly associated with psychological flexibility

Hypothesis b: Psychological flexibility would be positively and significantly associated with psychological well-being

Hypothesis c: Optimism would be positively and significantly associated with psychological well-being

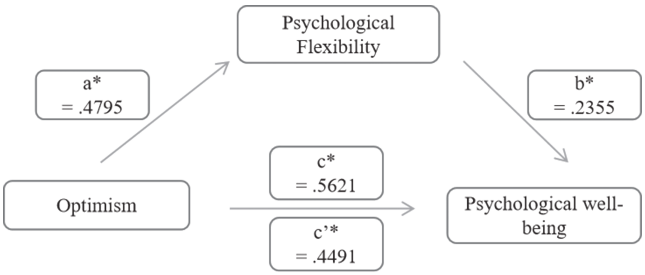
Pearson's correlational analysis was conducted to investigate the associations between optimism and PF. Correlational analysis revealed a positive and significant relationship between optimism and PF (r = 0.480, *p<.01);* between PF and PWB (r = 0.451, *p<.01) and* between optimism and PWB (r = 0.562, *p<.01)*. Table 2 shows the correlational analysis between all the variables in the study.

Hypothesis d: Psychological flexibility would mediate the relationship between optimism and psychological well-being

Baron and Kenny (1986) have specified that mediation is indicated when (1) a predictor variable correlates with the mediator variable and criterion variable, (2) the mediator variable should correlate with the criterion variable, and (3) when the criterion variable is regressed on the predictor variable and mediator variable together, the relationship between predictor variable and criterion variable is significantly reduced but the relationship between mediator variable and criterion variable is not. If the relationship is reduced to zero between the predictor variable and the criterion variable, then it suggests complete mediation; otherwise, if the relationship is reduced but not to zero, it suggests partial mediation. The mediation model of psychological flexibility in the relationship between optimism and PWB (and its sub-scales) was determined by using SPSS 28.0.1.1 (14), Hayes' macro PROCESS v4.2, Model 4 (Hayes, 2013). The indirect effect is tested using non-parametric bootstrapping using 5000 bootstrap samples with a 95% confidence interval.

The association between optimism and PF was statistically significant *(B = .4795, 95% CI [.53, 1.13], p <.001, s.e. = .1513).* The association between optimism and PWB (total effect) was statistically significant *(B = .5621, 95% CI [2.38, 4.34], p <.001, s.e. = .4949)*. The direct effect of optimism on PWB (path *c-prime*) was statistically significant *(B = .4491, 95% CI [1.60, 3.78], p< 0.001, s.e. = .5488)*. The association between PF and PWB was statistically significant *(B = .2355, 95% CI [.19, 1.45], p= .0117, s.e. = .3183).* When c' is statistically closer to zero than c and both routes (a-path and b-path) in a model are statistically significant, the mediator variable is regarded as a partial mediator of the link between X and Y. In the hypothesised mediation model, PF is a partial mediator of the association between optimism and PWB. The indirect effect for the hypothesised mediation model *(B = .1129, BootLLCI= .0199, BootULCI= .2038)* is statistically significant. Approximately 36% of the variance was accounted for by the predictors (F= 27.68; R^2= .3587, p<.001).

Fig. 2. Standardized path1 coefficients for the relationship between optimism and PWB as mediated by psychological flexibility



Hyothesis e: Psychological flexibility shall mediate the relationship between optimism and autonomy

Hyothesis f: Psychological flexibility shall mediate the relationship between optimism and environmental mastery

Hyothesis g: Psychological flexibility shall mediate the relationship between optimism and personal growth

Hyothesis h: Psychological flexibility shall mediate the relationship between optimism and positive relations with others

Hyothesis i: Psychological flexibility shall mediate the relationship between optimism and purpose in life

Hyothesis j: Psychological flexibility shall mediate the relationship between optimism and self acceptance.

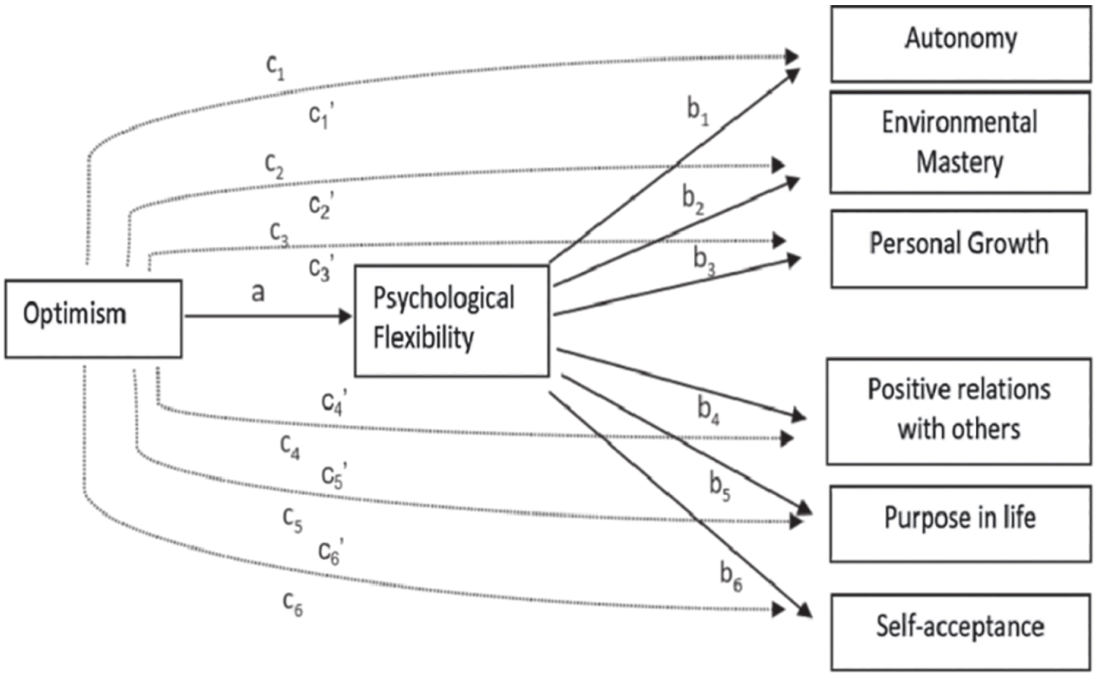
Another hypothesised model of mediation was analysed to explore the mediational role of PF between optimism and each of the components of psychological well-being. The mediation model of psychological flexibility in the relationship between optimism and sub-scales of PWB was determined by using SPSS 28.0.1.1 (14) Hayes' macro PROCESS v4.2, Model 4 (Hayes, 2013). The indirect effect is tested using non-parametric bootstrapping using 5000 bootstrap samples with 95% confidence interval.

Tab. 2. Descriptive Statistics and Correlation matrix (N = 102)

				Correlational Analysis							
	M	***SE***	***SD***	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***
Age	*43.42*	*1.110*	*11.21*								
1 Optimism	*16.22*	*0.396*	*4.00*								
2 PF	*16.12*	*0.683*	*6.90*	*.480**							
3 PWB	*199.02*	*2.372*	*23.96*	*.562**	*.451**						
4 Autonomy	*31.9*	*0.475*	*4.80*	*.406**	*.350**	*.809**					
5 Environmental Mastery	*32.36*	*0.495*	*5.00*	*.518**	*.342**	*.913**	*.692**				
6 Personal Growth	*33.7*	*0.436*	*4.40*	*.416**	*.391**	*.813**	*.521**	*.675**			
7 Positive relations with others	*34.09*	*0.493*	*4.98*	*.466**	*.420**	*.800**	*.545**	*.749**	*.574**		
8 Purpose of Life	*32.41*	*0.457*	*4.61*	*.400**	*0.152*	*.785**	*.571**	*.667**	*.648**	*.478**	
9 Self Acceptance	*34.56*	*0.491*	*4.96*	*.591**	*.585**	*.874**	*.703**	*.761**	*.677**	*.628**	*.585**

*Note: M: Mean; SD: Standard Deviation; SE: Standard error of mean; PF: Psychological Flexibility; PWB: Psychological well-being. * p<0.01 level, two-tailed.*

Fig. 3. Standardized path coefficients for the relationship between optimism and sub-scales of PWB as mediated by PF



a*= .4795; b_1=.2017; b_2= .1211; b_3*= .2485; b_4*= .2557; b_5= -.0523; b_6*= .3924; c_1*= .4064; c_2*= .5182; c_3*= .4162; c_4*= .4662; c_5*= .4004; c_6*= .5906; c_1'*= .3097; c_2'*= .4601; c_3'*= .2971; c_4'*= .3436; c_5'*= .4255; c_6'*= .4024

* : The standardized path coefficients are significant at 0.05 level

The association between optimism and PF was statistically significant *(B = .4795, 95% CI [.53, 1.13], p <.001, s.e. = .1513).* The association between optimism and autonomy (total effect) was statistically significant *(B = .4064, 95% CI [.27, .70], p <.001, s.e. = .1094)*. The direct effect of optimism on autonomy (*path c-prime*) was statistically significant *(B = .3097, 95% CI [.13, .61], p= .0033, s.e. = .1230)*. In the hypothesized mediation model, PF acts as a partial mediator of the association between optimism and autonomy. The association between PF and autonomy was statistically not significant *(B = .2017, 95% CI [-.0014, .28], p= .0523, s.e. = .0713).* The indirect effect for the hypothesized mediation model *(B = .0967, BootLLCI=-.0110, BootULCI= .1914)* is statistically not significant. Approximately 20% of the variance was accounted for by the predictors (F (2, 99) = 12.10; R^2= .1965, p<.001).

The association between optimism and environmental mastery (total effect) was statistically significant *(B = .5182, 95% CI [.43, .86], p <.001, s.e. = .1067).* The direct effect of optimism on environmental mastery (path *c-prime*) was statistically significant *(B = .4601, 95% CI [.33, .81], p <.001, s.e. = .1213)*. In the hypothesized mediation model, PF acts as a partial mediator of the association between optimism and environmental mastery. The association between PF and environmental mastery was statistically not significant *(B = .1211, 95% CI [-.05, .23], p= .2158, s.e. = .0704).* The indirect effect for the hypothesized mediation model *(B = .0581, BootLLCI=-.0342, BootULCI= .1597)* is statistically not significant. Approximately 28% of the variance was accounted for by the predictors (F (2, 99) = 19.23; R^2= .2798, p<.001).

The association between optimism and personal growth (total effect) was statistically significant *(B = .4162, 95% CI [.26, .66], p <.001, s.e. = .0999).* The direct effect of optimism on personal growth (path *c-prime)* was statistically significant *(B = .2971, 95% CI [.11, .55], p= .0041, s.e. = .1111)*. In the hypothesized mediation model, PF acts as a partial mediator of the association between optimism and personal growth. The association between PF and personal growth was statistically significant *(B = .2485, 95% CI [.03, .29], p= .0157, s.e. = .0644).* The indirect effect for the hypothesized mediation model *(B = .1192, BootLLCI= .0217, BootULCI= .2440)* is statistically significant. Approximately 22% of the variance was accounted for by the predictors (F (2, 99) = 14.03; R^2= .2208, p<.001).

The association between optimism and positive relations with others (total effect) was statistically significant *(B = .4662, 95% CI [.36, .80], p <.001, s.e. = .1101).* The direct effect of optimism on positive relations with others (path *c-prime)* was statistically significant *(B = .3436, 95% CI [.19, .67], p= .0007, s.e. = .1219)*. In the hypothesized mediation model, PF acts as a partial mediator of the association between optimism and positive relations with others. The association between PF and positive relations with others was statistically significant *(B = .2557, 95% CI [.04, .32], p= .0105, s.e. = .0707).* The indirect effect for the hypothesized mediation model *(B = .1226, BootLLCI= .0333, BootULCI= .2483)* is statistically significant. Approximately 27% of the variance was accounted for by the predictors (F (2, 99) = 18.09; R^2= .2676, p<.001).

The association between optimism and purpose of life (total effect) was statistically significant *(B = .4004, 95% CI [.25, .67], p <.001, s.e. = .1056).* The direct effect of optimism on purpose of

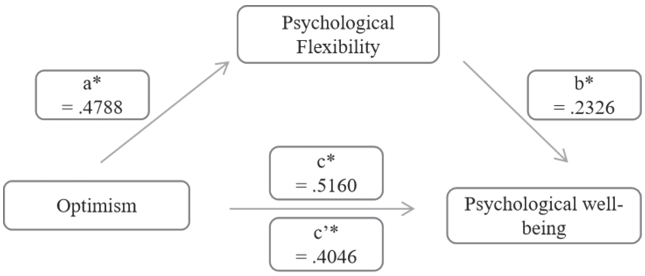
life (path *c-prime)* was statistically significant *(B = .4255, 95% CI [.25, .73], p= .0001, s.e. = .1207)*. In the hypothesized mediation model, PF acts as a partial mediator of the association between optimism and purpose of life. The association between PF and purpose of life was statistically not significant *(B = -.0523, 95% CI [-.17, .10], p= .6188, s.e. = .0700).* The indirect effect for the hypothesized mediation model *(B = -.0251, BootLLCI= -.1412, BootULCI= .0625)* is statistically not significant. Approximately 16% of the variance was accounted for by the predictors (F(2, 99) = 9.60; R^2= .1625, p= .0002).

The association between optimism and self-acceptance (total effect) was statistically significant *(B = .5906, 95% CI [.53, .92], p <.001, s.e. = .0999).* The direct effect of optimism on self-acceptance (path *c-prime)* was statistically significant *(B = .4024, 95% CI [.29, .70], p <.001, s.e. = .1035)*. In the hypothesized mediation model, PF acts as a partial mediator of the association between optimism and self-acceptance. The association between PF and self-acceptance was statistically significant *(B = .3924, 95% CI [.16, .40], p <.001, s.e. = .0600).* The indirect effect for the hypothesized mediation model *(B = .1882, BootLLCI= .0816, BootULCI= .2792)* is statistically significant. Approximately 47% of the variance was accounted for by the predictors (F (2, 99) = 43.43; R^2= .4673, p <.001).

Alternative model

The purpose of adding an alternative model to our study was to determine whether the association between optimism and psychological well-being were modified by adding age and gender as co-variate to the mediation model. Also, the two models compared the mediating effect of PF between optimism and PWB when the model was adjusted for co-variate, i.e., age and gender.

Fig. 4. Standardized path coefficients for the relationship between optimism and PWB as mediated by PF in presence of co-variate age and gender

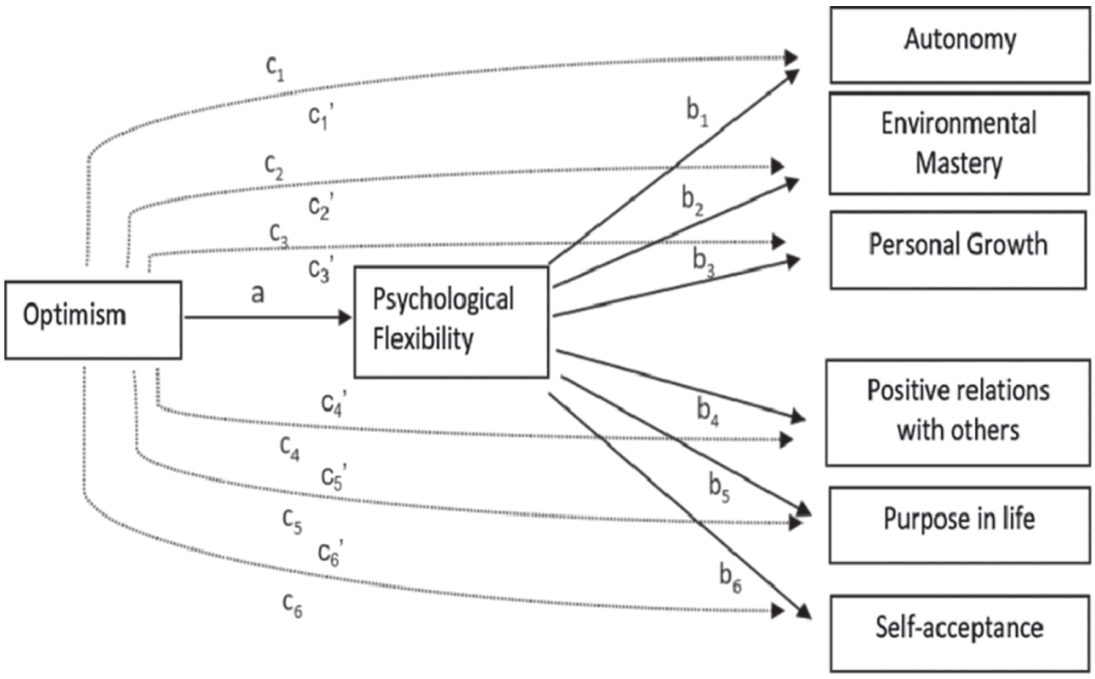


* : The standardized path coefficients are significant at 0.05 level

In the mediation model, where the relationship between optimism and PWB is assessed through mediating role of PF, the results revealed that age was a significant co-variate affecting PWB when predicting PWB but had no significant effect when predicting PF while gender had no significant effect. The model also tested the relationship between optimism and dimensions of PWB mediated by PF. The results revealed that age was a significant co-variate affecting autonomy, environmental mastery and positive relations with others but had no significant effect while predicting personal growth, purpose of life and self-acceptance. Gender had no significant effect while predicting any of the dimensions of PWB.

The main relationships hold when the co-variate (i.e., age and gender) are taken into account. *For the alternative model,*

Fig. 5. Standardized path coefficients for the relationship between optimism and sub-scales of PWB as mediated by PF in presence of co-variate age and gender



a*= .4788; b_1= .1987; b_2= .1185; b_3*= .2462; b_4*= .2500; b_5= -.0523; b_6*= .3916; c_1*= .3571; c_2*= .4661; c_3*= .4032; c_4*= .4079; c_5*= .3562; c_6*= .5793; c_1'*= .2619; c_2'*= .4094; c_3'*= .2854; c_4'*= .2882; c_5'*= .3812; c_6'*= .3918

* : The standardized path coefficients are significant at 0.05 level

standardized path coefficients for PWB and its sub-dimensions have been summarized in Fig. 4 and Fig. 5 respectively.

Discussions

In the present study, we analyzed the relationship among the variables in two parts: First, correlational analysis was carried out between optimism and psychological well-being, psychological flexibility and psychological well-being, and optimism and psychological flexibility. The hypotheses (a), (b), and (c) were accepted. Correlational analysis indicates that optimism and psychological flexibility are significantly correlated with psychological well-being. Our research is strongly supported by the research evidence to date. This implies that the more a person is an optimist, the better will be his PWB (e.g., Chang *et al.*, 1997; Carver *et al.*, 2005; Hochhausen, 2007). Optimism has been highly correlated with "life satisfaction", subjective health perception, anxiety and depression". (e.g., Hayes & Weathington, 2007; Leung *et al.*, 2005; Bailey *et al.*, 2007; Pais-Ribeiro *et al.*, 2007; Zenger *et al.*, 2010). The results have been found to be in the predicted direction and supported by past research studies. Additionally, there is a significant and positive correlation between PWB and PF. The results of the study are consistent with the results of previous studies conducted on different populations. Psychological flexibility considerably explained psychological well-being among the obese population (Usubini *et al.*, 2021). In adults, ACT interventions significantly increased emotional and PWB among the participants, and the improvement in PF during intervention mediated the effects of intervention on positive mental health (Fledderus *et al.*, 2010). The relationship between PWB and PF forms a vicious cycle. Many types of psychopathology involve decreased psychological flexibility (Borkovec, 1994; Thayer *et al., 1996; Iacono et al., 1999)*, but it is unclear whether this inflexibility is a cause or an effect of psychopathology, a problem that is related to the causative role of inflexibility as an indicator of well-being. Studies have shown that higher depression, anxiety and stress lead to lower psychological flexibility (Wąsowicz *et al.*, 2021). People who struggle with stress and anxiety frequently interact with their surroundings using a limited set of behavioral reactions or an avoidant coping strategy, which limits their capacity to weigh several possibilities. On the other hand, findings also support that psychological flexibility is a crucial element for leading a quality life and for psychological well-being (Biglan *et al.*, 2008). There are strong evidence for both the sides of the argument. It is necessary to do a thorough manipulation of PF process, ideally in a randomized controlled study, and see if there are any changes in psychological health as a result of the manipulation (Kashdan & Rottenberg, 2010). Correlational analysis showed a significant correlation between optimism and psychological flexibility. The results are in agreement with previous studies. Masuda and Latzman (2011) showed that a greater level of psychological inflexibility is associated with a greater level of pessimism. The interventions that enhance psychological flexibility have also resulted in boosting optimism in participants (Towsyfyan & Hossein Sabet, 2017). In the study conducted by Woldgabreal *et al.* (2016), the intercorrelation between LOT-R scores and AAQ-II scores was positive and significant at p<.001.

In the present cross-sectional study, the author(s) have examined the relationship among optimism, PF, and PWB among Indian defence personnel. The hypothesis (d) claimed that PF would mediate the relationship between optimism and PWB. By testing a mediation model, it was discovered that psychological flexibility partially but significantly mediates the relationship between optimism and PWB. This suggests that dispositional optimism is related to psychological flexibility, and both of these variables interact in a way to enhance psychological well-being. The results of the study agree with the findings of previous research studies. The role of optimism in the enhancement of psychological well-being has been well supported (Chang, Maydeu-Olivares, & D'Zurilla, 1997; Peterson, Seligman, & Vaillant, 1988). Better PWB is important to how an individual copes and performs. The negative perception of PWB is linked to less adaptive and coping behaviour (Chaturvedula & Joseph, 2007), while a healthy level of PWB in soldiers enhances their commitment, productivity, and efficiency in addition to their physical, psychological, and mental health (Greaves *et al.*, 2019; Mota *et al.*, 2016). The analysis of the mediation model has evaluated the role of both dispositional optimism and PF in the resulting outcome. This mediation analysis model allowed for a comprehensive evaluation of the variables and their effects on the PWB. When co-variates age and gender were added to the model, age had significant impact on PWB while gender had no significant impact on PWB. The overall results in the alternative model remained consistent with the original model.

For the hypotheses (e) to (j), while concluding the results for the mediating function of PF between optimism and components of the PWB, it was observed that PF partially mediates the relationship between optimism and "personal growth", "positive relations with others" and "self-acceptance" and in the case of "purpose in life", "autonomy" and "environmental mastery", the relationship is not significant. Previous studies have pointed out that optimism raises the level of environmental mastery and purpose in life (Kim, Lee, & Lee, 2022), and dispositional optimism mediates the relationship between locus of control and environmental mastery and purpose in life (Renaud *et al.*, 2019). Also, studies have suggested that dispositional optimism successfully predicts all the sub-scales of PWB (Zaheer & Khan, 2022; Belcher, 2009). Azkhosh *et al.* (2016) conducted experimental research on a group, wherein it was found that the group that was given ACT showed significant differences in autonomy, personal growth, purpose in life, and self-acceptance between the experimental group and the control group, but not in environmental mastery (which is consistent with the result of the present study) or positive relations with others. An autonomous individual is one who can make decisions based on their own ideas, emotions, and personal convictions. ACT places a strong emphasis on recognising one's own values and acting in accordance with them (Hayes, 2004). In order to develop ACT and target therapeutic sessions in accordance with personal ideals, personal values are employed as criteria. Similar studies (Forman *et al.*, 2007; Dalrymple & Herbert,

2007) have discovered that ACT enhances performance in accordance with personal beliefs and purpose. In another study by Calvo *et al.* (2020), psychological inflexibility negatively and significantly predicted all six dimensions of PWB. According to the limited body of literature available, optimism assuages psychological inflexibility and thereby enhances PWB and its dimensions. Thus, the results of the current study for hypotheses (e), (f), and (i) do not concur with the previous research findings, while the results for hypotheses (g), (h), and (j) are consistent with the previous research studies. The reasons for the results in this case can be due to a small sample size or the presence of a confounding variable. This can be explored further in future research. Further studies on different populations and larger samples need to be conducted in order to reach a definitive conclusion.

Implications

Optimism and psychological flexibility are important predictors of the psychological health of the defence forces. The relationship, though partially mediated, is significant, which preludes our recommendations for designing an intervention that underpins the role of optimism and psychological flexibility, especially for the challenges that lie on the personal and professional fronts of defence personnel. This study is aimed at analysing the action pathways through which optimism predicts PWB. The findings confirm the need to devise PWB interventions that have components of PF to enhance their effectiveness. The effectiveness and efficiency of optimism interventions combined with interventions based on PF can play a very important role in enhancing PWB rather than using them as standalone intervention therapies. Looking at the evidence in support of how optimism can enhance psychological well-being, the criteria for selection of defence personnel should include optimism as one of the traits that should be possessed by the potential candidates for being considered for selection. Dispositional optimism will accentuate their coping abilities and management of stressful situations in adaptive and productive ways, which will further enhance their psychological well-being. Psychological flexibility, in this research, partially mediates the relationship between optimism and PWB, but that does not undermine its importance in having a significant role to play in improving psychological well-being. Interventions that aid in enhancing PF can be designed to further enhance the PWB. The ACT therapy, founded on the principle of psychological flexibility (Hayes *et al.*, 2004a, 2004b), was found to enhance psychological flexibility, resulting in greater emotional and PWB levels among the adult population. Psychological flexibility also mediates the association between ACT and positive mental health among adults (Fledderus *et al.*, 2010). Given the research that suggests ACT-based interventions are effective in improving mental health and well-being (Wersebe et al., 2018), mental health professionals could create prevention and intervention services that promote mental health and well-being. These programmes could incorporate psychological flexibility, and these services could help people improve their overall well-being.

Limitations and scope for future research

While interpreting the findings, it is important to take into account the limitations of this study. First, while collecting data, self-reporting instruments were used that are prone to bias. Second, the sample taken was limited for reasons of confidentiality. Because of this, population-wide generalisation of the findings is difficult. Third, a certain organisational group was considered while collecting the data. As a result, the findings cannot be applied to all organisational sectors. Fourth, due to our limited access to the sample, the additional variables that might have confounded the association (e.g., socio-demographic variables, etc.) between optimism and psychological well-being were not controlled. Fifth, the research design is cross-sectional. It was not possible to demonstrate a causal relationship between the variables, so care should be used when interpreting the suggested paths. The model has to be studied longitudinally to explore the dynamics of the relationship among the variables over time. Experimental designs should also be employed to establish cause and effect relationship among the variables. The virtuous cycle in which psychological well-being may also sustain psychological flexibility and alternative models to ascertain the direction of the causal relationships should be explored. Sixth, the quantitative-only research design may limit the explanation of the outcomes. A qualitative analysis along with a quantitative analysis could have given an in-depth and better explanation of the outcomes. Seventh, the macro PROCESS has been used to test mediation, which does not allow correlations between dependent variables to be considered in the model. More accurate results could be obtained by SEM. The scope for future research lies in further exploring the relationship among the variables and also exploring other possible action mechanisms that determine the psychological well-being of defence personnel. Future research can benefit from conducting longitudinal research while emphasising both qualitative and quantitative data. SEM can be employed to test the correlation among the dependent variables in the model. While the research study presents a novel path mechanism between optimism and PWB, future studies should be conducted by controlling for various socio-demographic variables that may have confounded the results. In order to draw conclusions about the generalizability of the findings, the current study should be conducted among various cultures, age groups and organisational groups to evaluate the relationships among them. Also, as mentioned, the present hypothesised model is one of the many alternative models. Future research can conduct more research studies on the alternative models, and a comparative analysis can be presented.

Conclusion

The defence forces are the face of every country's strength. It is a specialised sector that deals with unpredictable and dangerous events. They are at a high risk of suffering from mental health issues due to unseen foes, be they in their personal or professional lives. Due to the rough conditions, they are very vulnerable to suffering from psychological

health issues. They are at a disadvantage due to the uncertain and psychologically demanding job conditions. The life of defence personnel is challenging for several reasons, including demanding job conditions, domestic issues, a stressful and uncertain environment, residential mobility, uncaring and unproductive management (Kaur, 2018). Thus, it is important to build the psychological well-being of the defence forces. Despite the limitations, the study has valuably contributed towards finding one of the many possible action mechanisms between optimism and PWB. These findings support the growing body of research that contends that positive traits like optimism and PF are crucial components of PWB. These findings can be further investigated so as to tailor and implement interventions that aim to promote psychological well-being. If the potential of optimism and psychological flexibility is appropriately harnessed, psychological well-being can be consciously promoted. The following suggestions can be made for future research projects and for creating interventions to promote PWB based on the study's findings: First, it is important for academicians, practitioners, policymakers, and planners to think about interventions that emphasise psychological resources like optimism and PF in order to improve PWB. It is crucial to take care of people's mental health and PWB, particularly in organisational sectors that deal with unpredictable and distressing events on a daily basis.

Note

1 The effect of the "independent variable" (IV) on the "mediator variable" (MV) is represented by the "a-path". The "b-path" displays how the "mediator" impacts the "dependent variable" (DV). The "c-path" denotes the overall impact of IV on the DV, while the "c'-path" denotes the "direct effect" of IV on the DV while taking into account the "indirect effect" of a mediator.

Author Contributions

Ms. Smarika Dalal: Conceptualization, design, data collection, statistical analysis, drafting and writing of the manuscript, review and editing the manuscript; Dr. Sandeep Singh: Data collection, review and final approval.

Conflict of interest

The authors have no conflict of interest (financial or non-financial) associated with this publication that could have affected the outcome.

Funding

No funding was received for conducting the study or for its publication.

Ethical approval

The research has been conducted according to the ethical standards of psychological research. The "Personal Information Questionnaire" (PIQ) did not mandate it to disclose the information that could compromise the identity and security of the participating defence personnel. The author(s) gave adequate information about the study to the participants. The participants were assured about the confidentiality of their responses and that the results obtained will be published in aggregate. Prior to administering the questionnaires, participants were reminded of the anonymous and voluntary nature of the research work where the participants are free to withdraw their participation at any point of time. Before starting out, participants' informed consent was obtained. The study was conducted under strict adherence to the Declaration of Helsinki, 1964. No human image or data that could compromise the confidentiality and anonymity of the respondents has been presented in the study.

Data availability statement

The data will be made available upon request for verifying or reproducing results.

References

Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). Hopelessness depression: A theorybased subtype of depression. *Psychological Review, 96, 358–372.* doi: *https://doi.org/*10.1037/0033-295x.96.2.358

Andrews, F. M. (1974). Social indicators of perceived life quality. *Social Indicators Research, 1, 279-99*. doi: *https://doi.org/10.1007/BF00303860*

Arslan, G., & Allen, K. A. (2021). Exploring the association between coronavirus stress, meaning in life, psychological flexibility, and subjective well-being. *Psychology, Health & Medicine*, 1-12. doi: *https://doi.org/10.1080/13548506.2021.1876892*

Arslan, G., Yıldırım, M., Tanhan, A. *et al*. (2021). Coronavirus Stress, Optimism-Pessimism, Psychological Inflexibility, and Psychological Health: Psychometric Properties of the Coronavirus Stress Measure. *Int J Ment Health Addiction, 19,* 2423–39. doi: *https://doi.org/10.1007/s11469-020-00337-6*

Aspinwall LG, Richter L, Hoffman RR. (2001). Understanding how optimism works: an examination of optimists' adaptive moderation of belief and behaviour. In Chang EC (Ed.). Optimism and pessimism. Washington: American Psychological Association (pp. 217–38). doi: https://doi.org/10.1037/10385-010

Augusto-Landa, J. M., Pulido-Martos, M., & Lopez-Zafra, E. (2011). Does perceived emotional intelligence and optimism/pessimism predict psychological well-being?. *Journal of Happiness Studies, 12(3)*, 463-474. doi: *https://doi.org/10.1007/s10902-010-9209-7*

Azkhosh, M., Farhoudianm, A., Saadati, H., Shoaee, F., & Lashani, L. (2016). Comparing acceptance and commitment group therapy and 12-steps Narcotics Anonymous in addict's rehabilitation process: A randomized controlled trial. Iranian Journal of psychiatry, 11(4), 244.

Bachynski KE, Canham-Chervak M, Black SA, Dada EO, Millikan AM, Jones BH. Mental health risk factors for suicides in the US Army, 2007-8 [published online March 7, 2012]. *Inj Prev.* doi: *https://doi.org/*10.1136/injuryprev-2011-040112

Bailey, T. C., Eng, W., Frisch, M. B., & Snyder, C. R. (2007). Hope and optimism as related to life satisfaction. *The Journal of Positive Psychology, 2(3),* 168-75. doi: *https://doi.org/10.1080/17439760701409546*

Baron, Reuben & Kenny, David. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-82. doi: *https://doi.org/10.1037//0022-3514.51.6.1173*

Belcher, J.T. (2009). Optimism, psychological well-being, and quality of life in females with Fibromyalgia Syndrome.[Doctoral dissertation, Capella University]. Proquest Dissertation and Thesis database. Url: https://www.proquest.com/openview/9e5b83a-70e1148617928e0270fb8a883/1?pq- origsite=gscholar&cbl=18750

Biglan, A., Hayes, S. C., & Pistorello, J. (2008). Acceptance and Commitment: Implications for prevention science. Prevention science, 9, 139-152. doi: https://doi.org/10.1007/s11121-008-0099-4

Bluett, E. J., Lee, E. B., Simone, M., Lockhart, G., Twohig, M. P., Lensegrav-Benson, T., & Quakenbush-Roberts, B. (2016). The role of body image psychological flexibility on the treatment of eating disorders in a residential facility. *Eating Behaviors*, *23,* 150-55. doi: *https://doi.org/10.1016/j.eatbeh.2016.10.002*

Bohlmeijer, E.T., Fledderus, M., Rokx, T.A.J., Pieterse, M.E., (2011). Efficacy of an early intervention based on acceptance and commitment therapy for adults with depressive symptomatology: Evaluation in a randomized controlled trial. *Behaviour Research and Therapy*, *49*, 62-67. doi: *https://doi.org/*10.1016/j.brat.2010.10.003

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., Waltz, T., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy, 42,* 676–88. doi: *https://doi.org/10.1016/j.beth.2011.03.007*

Borkovec, T. D. (1994). The nature, functions, and origins of worry. In G. Davey, & F. Tallis (Eds.), Worrying: Perspectives on theory, assessment and treatment (pp. 5-33). Chichester: John Wiley & Sons.

Brassell, A. A., Rosenberg, E., Parent, J., Rough, J. N., Fondacaro, K., & Seehuus, M. (2016). Parent's psychological flexibility: Associations with parenting and child psychosocial well-being. *Journal of Contextual Behavioral Science, 5(2),* 111-20. doi: *https://doi.org/10.1016/j.jcbs.2016.03.001*

Bryan, C. J., Ray-Sannerud, B., & Heron, E. A. (2015). Psychological flexibility as a dimension of resilience for posttraumatic stress, depression, and risk for suicidal ideation among Air Force personnel. Journal of Contextual Behavioral Science, 4(4), 263-268. doi: https://doi.org/10.1016/j.jcbs.2015.10.002

Bryan, C. J., Ray-Sannerud, B. N., Morrow, C. E., & Etienne, N. (2013). Optimism reduces suicidal ideation and weakens the effect of hopelessness among military personnel. Cognitive therapy and research, 37, 996-1003. doi: https://doi.org/10.1007/s10608-013-9536-1

Bryant, F. B., & Veroff, J. (1982). The structure of psychological well-being: a sociohistorical analysis. *Journal of personality and social psychology*, *43(4),* 653-73. doi: *https://doi.org/10.1037//0022-3514.43.4.653*

Cabrera-Sanchez, P., & Friedlander, M. L. (2017). Optimism, self-differentiation, and perceived posttraumatic stress disorder symptoms: Predictors of satisfaction in female military partners. *Couple and Family Psychology: Research and Practice, 6(4)*, 235. doi: *https://doi.org/*10.1037/cfp0000090

Calvo, V., D'Aquila, C., Rocco, D., & Carraro, E. (2020). Attachment and well-being: Mediatory roles of mindfulness, psychological inflexibility, and resilience. Current Psychology, 1-14. doi: https://doi.org/10.1007/s12144-020-00820-2

Carver, C. S., Smith, R. G., Antoni, M. H., Petronis, V. M., Weiss, S., & Derhagopian, R. P. (2005). Optimistic personality and psychosocial well-being during treatment predict psychosocial well-being among long-term survivors of breast cancer. *Health psychology*, *24(5)*, 508. doi: *https://doi.org/10.1037/0278-6133.24.5.508*

Cattivelli, R., Castelnuovo, G., Musetti, A. *et al. (2018).* ACT on HEALTH study protocol: promoting psychological flexibility with activity tracker and mHealth tools to foster healthful lifestyle for obesity and other chronic health conditions. *Trials, 19*, 659. doi: *https://doi.org/*10.1186/s13063-018-2968-x

Chan, K. K. S., & Yip, C. C. H. (2021). The impact of psychological flexibility on sexual identity stress and well-being among lesbian, gay, and bisexual individuals. *American Journal of Orthopsychiatry*, *91(5)*, 660. doi: *https://doi.org/10.1037/ort0000567*

Chang, E. C. (1998). Does dispositional optimism moderate the relation between perceived stress and psychological well-being?: A preliminary investigation. *Personality and individual differences*, *25(2)*, 233-240. doi: *https://doi.org/10.1016/S0191-8869(98)00028-2*

Chang, E. C., Maydeu-Olivares, A., & D'Zurilla, T. J. (1997). Optimism and pessimism as partially independent constructs: Relationship to positive and negative affectivity and psychological well-being. *Personality and individual Differences*, *23(3)*, 433-440. doi: *https://doi.org/10.1016/S0191-8869(97)80009-8*

Chaturvedula, S., & Joseph, C. (2007). Dimensions of psychological well-being and personality in military aircrew: A preliminary study. Indian Journal of Aerospace Medicine, 51(2), 17-27.

Conversano, C., Rotondo, A., Lensi, E., Della Vista, O., Arpone, F., & Reda, M. A. (2010). Optimism and its impact on mental and physical well-being. *Clinical practice and epidemiology in mental health : CP & EMH, 6, 25–29. doi: https://doi.org/10.2174/1745017901006010025*

Dalrymple KL, Herbert JD. (2007) Acceptance and commitment therapy for generalized social anxiety disorder: a pilot study. Behav Modif., 31, 543–568. doi: https://doi.org/10.1177/0145445507302037

Davidson, L., Sells, D., Songster, S., & O'Connell, M. (2005). Qualitative studies of recovery: What can we learn from the person? In R. O. Ralph & P. W. Corrigan (Eds.), Recovery in mental illness: Broadening our understanding of wellness *(pp. 147-170). American Psychological Association. Doi: https://doi.org/10.1037/10848-007*

de Boer, M. J., Steinhagen, H. E., Versteegen, G. J., Struys, M. M. R. F., & Sanderman, R. (2014). Mindfulness, acceptance and catastrophizing in chronic pain. *PLoS One*, *9*, e87445. doi: *https://doi.org/10.1371/journal.pone.0087445*

Deledda, G., Poli, S., Giansante, M., Zamboni, M., Turazza, M., & Gori, S. (2015). Psychological well-being, acceptance and

psychological flexibility, in breast cancer patients undergoing mastectomy or lumpectomy. *Annals of Oncology*, *26*, vi124. doi: *https://doi.org/10.1093/annonc/mdv347.06*

Ebrahimabad, M. A., & Mamizade, M. (2018). An investigation into the role of psychological flexibility and hardiness in explaining soldiers' psychological well-being. *Research in Clinical Psychology and Counseling*, *8(1),* 37-51. doi: *https://doi.org/10.22067/ijap.v8i1.67658*

Ehring, T., Frank, S., & Ehlers, A. (2008). The role of rumination and reduced concreteness in the maintenance of posttraumatic stress disorder and depression following trauma. *Cognitive Therapy and Research, 32(4),* 488-506. doi: *https://doi.org/*10.1007/s10608-006-9089-7

Ferguson, S. J., & Goodwin, A. D. (2010). Optimism and well-being in older adults: The mediating role of social support and perceived control. The International Journal of Aging and Human Development, 71(1), 43-68. doi: https://doi.org/10.2190/ag.71.1.c

Fledderus, M., Bohlmeijer, E. T., Smit, F., & Westerhof, G. J. (2010). Mental Health Promotion as a New Goal in Public Mental Health Care: A Randomized Controlled Trial of an Intervention Enhancing Psychological Flexibility. *American Journal of Public Health*, *100(12)*, 2372–2372. doi: *https://doi.org/*10.2105/ajph.2010.196196

Forman EM, Herbert JD, Moitra E, Yeomans PD, Geller PA. (2007) A randomized controlled effectiveness trial of acceptance and commitment therapy and cognitive therapy for anxiety and depression. Behav Modif., 31, 772–799. doi: https://doi.org/10.1177/0145445507302202

Fotiadou, M., Barlow, J. H., Powell, L. A., & Langton, H. (2008). Optimism and psychological well-being among parents of children with cancer: an exploratory study. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, *17(4)*, 401-409. doi: *https://doi.org/10.1002/pon.1257*

Ghorbani, M., & Kazemi-Zahrani, H. (2015). Psychological well-being and creativity. *International Journal of Advances in Science Engineering and Technology*, Spl., *3,* 20-23.

Gloster, A. T., Meyer, A. H., & Lieb, R. (2017). Psychological flexibility as a malleable public health target: Evidence from a representative sample. *Journal of Contextual Behavioral Science*, *6(2)*, 166-171. doi: *https://doi.org/10.1016/j.jcbs.2017.02.003*

Goubert, L., & Trompetter, H. (2017). Towards a science and practice of resilience in the face of pain. European Journal of Pain, 21(8), 1301–1315. doi: https://doi.org/10.1002/ejp.1062

Greaves LM, Sibley CG, Fraser G, Barlow FK. (2019). Comparing Pansexual- and Bisexual-Identified Participants on Demographics, Psychological Well-Being, and Political Ideology in a New Zealand National Sample. J Sex Res.*, 56(9), 1083-90. doi: https://doi.org/10.1080/00224499.2019.1568376.*

Hassett, A. L., Fisher, J. A., Vie, L. L., Kelley, W. L., Clauw, D. J., & Seligman, M. E. (2019). Association between predeployment optimism and onset of postdeployment pain in US army soldiers. JAMA network open, 2(2), e188076. doi: https://doi.org/10.1001/jamanetworkopen.2018.8076

Hayes, A. F. (2013). Mediation, moderation and conditional process analysis. Introduction to mediation, moderation and conditional process analysis: A regression-based approach, 1, 20.

Hayes SC. (2004). Acceptance and Commitment Therapy and the New Behavior Therapies: Mindfulness, Acceptance, and Relationship. In S. C. Hayes, V. M. Follette & M. M. Linehan (Eds.), Mindfulness and acceptance: expanding the cognitive behavioural tradition (pp. 1-29). The Guilford Press. doi: 10.1002/9781118001851.ch12

Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., Polusny, M., A., Dykstra, T. A., Batten, S. V., Bergan, J., Stewart, S. H., Zvolensky, M. J., Eifert, G. H., Bond, F. W., Forsyth J. P., Karekla, M., & McCurry, S. M. (2004a). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54,* 553–578. doi: *https://doi.org/10.1007/bf03395492*

Hayes, S. C., Strosahl, K. D., Bunting, K., Twohig, M., & Wilson, K. G. (2004b). What is acceptance and commitment therapy? In S.C.Hayes & K. D. Strosahl (Eds.), *A practical guide to acceptance and commitment therapy (pp. 3–29)*. Boston, MA: Springer. doi: *https://doi.org/10.1007/978-0-387-23369-7_1*

Hayes, C. T., & Weathington, B. L. (2007). Optimism, stress, life satisfaction, and job burnout in restaurant managers. *The Journal of psychology*, *141(6)*, 565-579. doi: *https://doi.org/10.3200/jrlp.141.6.565-580*

Hochhausen, N., Altmaier, E. M., McQuellon, R., Davies, S. M., Papadopolous, E., Carter, S., & Henslee-Downey, J. (2007). Social support, optimism, and self-efficacy predict physical and emotional well-being after bone marrow transplantation. *Journal of psychosocial oncology*, *25(1)*, 87-101. doi: *https://doi.org/10.1300/j077v25n01_05*

Howell, A. J., & Demuynck, K. M. (2021). Psychological flexibility and psychological inflexibility are independently associated with both hedonic and eudaimonic well-being. *Journal of Contextual Behavioral Science*, *20*, 163-171. doi: *https://doi.org/10.1016/j.jcbs.2021.04.002*

Iacono, W. G., Carlson, S. G., Taylor, J., Elkins, I. J., & McGue, M. (1999). Behavioral disinhibition and the development of substance use disorders: Findings from the Minnesota Twin Family Study. Development and Psychopathology, 11, 869–900. doi: https://doi.org/10.1017/s0954579499002369

Imani, M. and Karimi, J. and Behbahani, M. and Omidi, A. (2017) Role of mindfulness, psychological flexibility and integrative self-knowledge on psychological well-being among the university students. *Feyz Journal of Kashan University of Medical Sciences*, *21 (2),* 171-178.

Jaeschke, A. M. C. (2016). *Psychosocial predictors of resilience in a military sample* [Doctoral Dissertation, West Virginia University]. *Graduate Theses, Dissertations, and Problem Reports,* West Virginia University. Url: https://researchrepository.wvu.edu/etd/5873.

Jahanara, M. (2017). Optimism, hope and mental health: Optimism, hope, psychological well-being and psychological distress among students, University of Pune, India. *International Journal of Psychological and Behavioral Sciences*, *11(8)*, 452-455. doi: *https://doi.org/10.14689/ejer.2019.82.5*

Kaplan, George & Shema, Sarah & Leite, Claudia Almada. (2008). Socioeconomic Determinants of Psychological Well-Being: The Role of Income, Income Change, and Income Sources During the Course of 29 Years. *Annals of epidemiology, 18,* 531-7. doi: *https://doi.org/*10.1016/j.annepidem.2008.03.006.

Kardas, F., Zekeriya, C. A. M., Eskisu, M., & Gelibolu, S. (2019). Gratitude, hope, optimism and life satisfaction as predictors of psychological well-being. *Eurasian Journal of Educational Research*, *19(82)*, 81-100. doi: *https://doi.org/10.14689/ejer.2019.82.5*

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical psychology review*, *30(7)*, 865-878. doi: *https://doi.org/10.1016/j.cpr.2010.03.001*

Kaur, Raskirat. (2018). Mental Health of Indian Soldiers: A Review. *International Journal of Research in Engineering, IT and Social Sciences*, *8(5)*, 83-86.

Keyes C. L., Ryff C. D., Shmotkin D. (2002). Optimizing Well-Being: The Empirical Encounter of Two Traditions. *J. Pers. Soc. Psychol., 82,* 1007–1022. *https://doi.org/*10.1037/0022-3514.82.6.1007

Kim, J. W., Lee, M. K., & Lee, J. K. (2022). The Effects of Entrepreneurs' Optimism and Mindfulness on Psychological Well-Being. Journal of Global Business and Trade, 18(4), 123-137. doi: https://doi.org/10.20294/jgbt.2022.18.4.123

Kim, H. K., & McKenry, P. C. (2002). The relationship between marriage and psychological well-being: A Longitudinal analysis. *Journal of Family Issues*, *23(8)*, 885–911. doi: *https://doi.org/*10.1177/019251302237296

Kuehn, B. (2009). Soldier suicide rates continue to rise: Military, scientists work to stem the tide. *JAMA : The journal of the American Medical Association, 301,* 1111-13. doi: *https://doi.org/*10.1001/jama.2009.342.

Leung, B. W. C., Moneta, G. B., & McBride-Chang, C. (2005). Think positively and feel positively: Optimism and life satisfaction in late life. *The International Journal of Aging and Human Development*, *61(4)*, 335-365. doi: *https://doi.org/10.2190/fqtb-ebaj-h9wp-lmya*

Lester, P. B., Stewart, E. P., Vie, L. L., Bonett, D. G., Seligman, M. E., & Diener, E. (2022). Happy soldiers are highest performers. Journal of Happiness Studies, 23(3), 1099-1120. doi: https://doi.org/10.1007/s10902-021-00441-x

Levin, M. E., Lillis, J., & Biglan, A. (2015). The potential of community wide strategies for Promoting Psychological Flexibility. In R. Zettle, S. C. Hayes, D. Barnes-Holmes, A. Biglan (Eds.), *The Wiley handbook of contextual behavioral science (pp.* 483-495). John Wiley & Sons, Ltd. doi: *https://doi.org/10.1002/9781118489857.ch23*

Lloyd, J., Bond, F. W., & Flaxman, P. E. (2013). The value of psychological flexibility: Examining psychological mechanisms underpinning a cognitive behavioural therapy intervention for burnout. *Work & Stress*, *27(2)*, 181–199. doi: *https://doi.org/10.1080/02678373.2013.782157*

Luoma, J., Drake, C. E., Kohlenberg, B. S., & Hayes, S. C. (2011). Substance abuse and psychological flexibility: The development of a new measure. *Addiction Research & Theory, 19(1)*, 3–13. doi: *https://doi.org/10.3109/16066359.2010.524956*

Lyubomirsky, S., King, L., & Diener, E. (2005). The Benefits of Frequent Positive Affect: Does Happiness Lead to Success? *Psychological Bulletin*, *131(6)*, 803–855. doi: *https://doi.org/*10.1037/0033-2909.131.6.803

Maor, M., Zukerman, G., Amit, N., Richard, T., & Ben-Itzhak, S. (2021). Psychological well-being and adjustment among type 2 diabetes patients: the role of psychological flexibility. *Psychology, Health & Medicine*, *1–12*. doi: *https://doi.org/*10.1080/13548506.2021.1887500

Masuda, A., & Latzman, R. D. (2011). Examining associations among factor-analytically derived components of mental health stigma, distress, and psychological flexibility. *Personality and Individual Differences*, *51(4)*, 435–438. doi: *https://doi.org/10.1016/j.paid.2011.04.008*

McCracken, L. & Morley, S. (2014). The Psychological Flexibility Model: A Basis for Integration and Progress in Psychological Approaches to Chronic Pain Management. *Journal of Pain, 15,* 221-234. doi: *https://doi.org/*10.1016/j.jpain.2013.10.014.

Meyer, E. C., Frankfurt, S. B., Kimbrel N. A., DeBeer, B. B., Gulliver, S. B. & Morrisette, S. B. (2018). The influence of mindfulness, self-compassion, psychological flexibility, and posttraumatic stress disorder on disability and quality of life over time in war veterans. *Journal of Clinical Psychology, 74(7), 1272-1280. doi: https://doi.org/10.1002/jclp.22596*

Mishra, K. K. (2013). Optimism and Well-Being. *Social Science International*, *29(1)*.

Mota NP, Tsai J, Kirwin PD, Sareen J, Southwick SM, Pietrzak RH. (2016) Purpose in Life is Associated with a Reduced Risk of Incident Physical Disability in Aging U.S. Military Veterans. Am J Geriatr Psychiatry, 24*(9), 706-14. doi: https://doi.org/10.1016/j.jagp.2016.03.004.*

Mukherjee, S., & Kumar, U. (2021). Psychological Flexibility: An Overview and Avenues for Application in the Military. In R. K. Pradhan & U. Kumar (Eds.), Emotion, Well-Being, and Resilience: Theoretical persepectives and practical applications (1st ed., pp. 397-408). CRC Press and Apple Academic Press.

Padhy, M., Chelli, K., & Padiri, R. A. (2015). Optimism and psychological well-being of police officers with different work experiences. *Sage Open*, *5(2)*, 2158244015580852. doi: *https://doi.org/10.1177/2158244015580852*

Pais-Ribeiro, J., da Silva, A. M., Meneses, R. F., & Falco, C. (2007). Relationship between optimism, disease variables, and health perception and quality of life in individuals with epilepsy. *Epilepsy & Behavior*, *11(1)*, 33-38. doi: *https://doi.org/10.1016/j.yebeh.2007.04.010*

Parveen, F., Maqbool, S., & Khan, S. M. (2016). Optimism as predictor of psychological well-being among adolescents. *The International Journal of Indian Psychology*, *66(3)*, 12-21. doi: *https://doi.org/10.25215/0304.154*

Peterson, C. (2006). A primer in positive psychology. New York: Oxford

Peterson C, De Avila ME. (1995). Optimistic explanatory style and the perception of health problems. J Clin Psychol., 51(1), 128–32. doi: https://doi.org/10.1002/1097-4679(199501)51:1<128::aid-jclp2270510120>3.0.co;2-1

Peterson C, Seligman ME. (1987) Explanatory style and illness. J Pers , 55(2), 237–65.

Peterson, C., Seligman, M. E., & Vaillant, G. E. (1988). Pessimistic explanatory style is a risk factor for physical illness: a thirty-five-year longitudinal study. *Journal of personality and social psychology, 55(1)*, 23. doi: *https://doi.org/*10.1037/0022-3514.55.1.23

Pettit, J.W., Temple, S.R., Norton, P.J., Yaroslavsky, I., Grover, K.E., Morgan, S.T., & Schatte, D.J. (2009). Thought suppres-

sion and suicidal ideation: preliminary evidence in support of a robust association. *Depression and Anxiety*, *26(8),* 758-763. doi: *https://doi.org/*10.1002/da.20512

Powers, M. B., Zum Vörde Sive Vörding, M. B., and Emmelkamp, P. M. G. (2009). Acceptance and commitment therapy: a meta-analytic review. *Psychother. Psychosom*. *78*, 73–80. doi: *https://doi.org/*10.1159/000190790

Puolakanaho, A., Tolvanen, A., Kinnunen, S. M., & Lappalainen, R. (2020). A psychological flexibility-based intervention for Burnout: A randomized controlled trial. *Journal of Contextual Behavioral Science, 15*, 52-67. doi: *https://doi.org/10.1016/j.jcbs.2019.11.007*

Rand, Kevin & Shanahan, Mackenzie & Fischer, Ian & Fortney, Sarah. (2020). Hope and optimism as predictors of academic performance and subjective well-being in college students. Learning and Individual Differences, 81, 101906. doi: https://doi.org/10.1016/j.lindif.2020.101906.

Renaud, J., Barker, E. T., Hendricks, C., Putnick, D. L., & Bornstein, M. H. (2019). The developmental origins and future implications of dispositional optimism in the transition to adulthood. International Journal of Behavioral Development, 43(3), 221-230. doi: https://doi.org/10.1177/0165025418820629

Renshaw K.D. (2011). An integrated model of risk and protective factors of post deployment PTSD symptoms in OEF/OIF era combat veterans. *J Affective Disord, 128(3)*, 321–326. doi: *https://doi.org/*10.1016/j.jad.2010.07.022

Reyes, M. E., Dillague, S. G. O., Fuentes, M. I. A., Malicsi, C. A., Manalo, D. C., Melgarejo, J. M., & Cayubit, R. F. (2020). Self-esteem and optimism as predictors of resilience among selected Filipino active duty military personnel in military camps. *Journal of Positive Psychology & Well-being, 4(1),* 15-25.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57(6),* 1069–1081. doi: *https://doi.org/*10.1037/0022-3514.57.6.1069

Ryff C. D. (2018). "Eudaimonic Well-being," in Diversity in Harmony – Insights from Psychology: Proceedings of the 31st International Congress of Psychology, (New York, NY: John Wiley and Sons), 375. doi: *https://doi.org/*10.1002/9781119362081.ch20

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, *69(4)*, 719. doi: *https://doi.org/10.1037/0022-3514.69.4.719*

Ryff, C. D., & Singer, B. H. (2006). Best news yet on the six-factor model of well-being. Social Science Research, 35(4), 1103–1119. doi: https://doi.org/10.1016/j.ssresearch.2006.01.002

Sabouripour, F., Roslan, S., Ghiami, Z., & Memon, M. A. (2021). Mediating role of self-efficacy in the relationship between optimism, psychological well-being, and resilience among Iranian students. Frontiers in psychology, 12, 675645. doi: https://doi.org/10.3389/fpsyg.2021.675645

Scheier MF, Carver CS. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. Health Psychol., 4(3), 219–47. doi: https://doi.org/10.1037/0278-6133.4.3.219

Scheier, M. F., & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive therapy and research*, *16(2)*, 201-228. doi: *https://doi.org/10.1007/bf01173489*

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, *67,* 1063-1078. doi: *https://doi.org/10.1037/0022-3514.67.6.1063*

Scheier, M. E, Matthews, K. A., Owens, J. F, Magovern, G. J., Sr., Lefebvre, R. C, Abbott, R. A., & Carver, C. S. (1989). Dispositional optimism and recovery from coronary artery bypass surgery: The beneficial effects on physical and psychological well-being. *Journal of Personality and Social Psychology*, *57*, 1024-1040. doi: *https://doi.org/10.1037/0022-3514.57.6.1024*

Schweizer, K., Beck-Seyffer, A., & Schneider, R. (1999). Cognitive bias of optimism and its influence on psychological well-being. *Psychological Reports*, *84(2)*, 627-636. doi: *https://doi.org/10.2466/pr0.1999.84.2.627*

Sharma, S. (2015). Occupational stress in the armed forces: An Indian army perspective. IIMB Management Review, 27(3), 185-195. doi: https://doi.org/10.1016/j.iimb.2015.06.002

Sheldon, K. M., & King, L. (2001). Why positive psychology is necessary. American Psychologist, 56(3), 216-217. doi: https://doi.org/10.1037/0003-066x.56.3.216

Springer, K. W., & Hauser, R. M. (2006). An assessment of the construct validity of Ryff's scales of psychological well-being: Method, mode, and measurement effects. Social science research, 35(4), 1080-1102. doi: https://doi.org/10.1016/j.ssresearch.2005.07.004

Stock, W. A., Okun, M. A., & Benin, M. (1986). Structure of subjective well-being among the elderly. *Psychology and Aging*, *1(2)*, 91–102. doi: *https://doi.org/*10.1037/0882-7974.1.2.91

Stoewen DL. (2017). Dimensions of wellness: Change your habits, change your life. *Can Vet J. 58(8), 861-862.*

Sumi, K. (1997). Optimism, social support, stress, and physical and psychological well-being in Japanese women. *Psychological reports*, *81(1)*, 299-306. doi: *https://doi.org/10.2466/pr0.1997.81.1.299*

Taylor, Shelley & Kemeny, Margaret & Aspinwall, Lisa & Schneider, Stephen & Rodriguez, Richard & Herbert, Mark. (1992). Optimism, Coping, Psychological Distress, and High-Risk Sexual Behavior Among Men at Risk for Acquired Immunodeficiency Syndrome (AIDS). *Journal of personality and social psychology, 63,* 460-73. doi: *https://doi.org/*10.1037//0022-3514.63.3.460.

Thayer, J. F., Friedman, B. H., & Borkovec, T. D. (1996). Autonomic characteristics of generalized anxiety disorder and worry. *Biological Psychiatry, 39*, 255–266. doi: *https://doi.org/*10.1016/0006-3223(95)00136-0

Thomas, J. L., Britt, T. W., Odle-Dusseau, H., & Bliese, P. D. (2011). Dispositional optimism buffers combat veterans from the negative effects of warzone stress on mental health symptoms and work impairment. *Journal of Clinical Psychology, 67(9)*, 866-880. doi: *https://doi.org/*10.1002/jclp.20809

Towsyfyan, N., & Hossein Sabet, F. (2017). The effectiveness of acceptance and commitment therapy on the improving of resilience and optimism in adolescents with major depres-

sive disorder. *International Journal of Humanities and Social Science*, *7(3),* 239–245.

Twiselton, K., Stanton, S. C., Gillanders, D., & Bottomley, E. (2020). Exploring the links between psychological flexibility, individual well-being, and relationship quality. *Personal Relationships, 27(4)*, 880-906. doi: *https://doi.org/*10.1111/pere.12344

Usubini A. G., Varallo G., Granese V., Cattivelli R., Consoli S., Bastoni I., Volpi C., Castelnuovo G. and Molinari E. (2021), The Impact of Psychological Flexibility on Psychological Well-Being in Adults With Obesity. *Front. Psychol.*, *12, 636933*. doi: *https://doi.org/*10.3389/fpsyg.2021.636933

Wąsowicz, G., Mizak, S., Krawiec, J., & Białaszek, W. (2021). Mental health, well-being, and psychological flexibility in the stressful times of the COVID-19 pandemic. *Frontiers in Psychology*, *12. doi: https://doi.org/10.3389/fpsyg.2021.647975*

Weitzman, S. (2021). Strategic Spirituality: Positive Psychology, the Army, and the Ambiguities of "Spirituality Fitness", Journal of the American Academy of Religion*, 89(1), 240–71. doi: https://doi.org/10.1093/jaarel/lfab010*

Wersebe, H., Lieb, R., Meyer, A. H., Hofer, P., & Gloster, A. T. (2018). The link between stress, well-being, and psychological flexibility during an Acceptance and Commitment Therapy self-help intervention. *International Journal of Clinical and Health Psychology*, *18(1),* 60-68. doi: *https://doi.org/*10.1016/j.ijchp.2017.09.002

Woldgabreal, Yilma & Day, Andrew & Ward, Tony. (2016). Linking Positive Psychology to Offender Supervision Outcomes: The Mediating Role of Psychological Flexibility, General Self-Efficacy, Optimism, and Hope. *Criminal Justice and Behavior, 43(6), 697-721.* doi: *https://doi.org/*10.1177/0093854815620816

Zaheer, Z., Khan, M. (2022). Perceived Stress, Resilience and Psychological Well-Being among University Students: The Role of Optimism as a Mediator. Asian Social Studies and Applied Research, 3(1), 55-67.

Zenger, M., Brix, C., Borowski, J., Stolzenburg, J. U., & Hinz, A. (2010). The impact of optimism on anxiety, depression and quality of life in urogenital cancer patients. *Psycho-Oncology*, *19(8),* 879-886. doi: *https://doi.org/*10.1002/pon.1635

Sitography

Over 800 suicide cases reported in Armed forces in last five years: Government. (2022, July, 19). The Economic Times. url: https://economictimes.indiatimes.com/news/defence/over-800-suicide-cases-reported-in-armed-forces-in-last-five-years-government/articleshow/92982133.cms