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The Impact of Resilience Training on Occupational Stress, Resilience, Job Satisfaction, and Psychological Well-being of Female Police Officers

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Abstract
Despite many studies on police stress, there is little research on interventions to promote their well-being. Moreover, most studies of police stress have been predominately on male samples, with female police officers often being neglected. On this premise, the purpose of the present study was to develop and determine the efficacy of resilience training program by evaluating its impact on occupational stress, resilience, job satisfaction, and psychological well-being. Two hundred and fifty female police officers from the Southern part of India were recruited for the study. The study adopted a pre-post-follow-up research design. Resilience training with components such as self-awareness, positive attitude, emotional management, and interpersonal skills were developed uniquely for this study, based on protective model of resilience. Sixty-three female police officers, who fulfilled the criteria, were randomly assigned into two groups namely, experimental ($n = 33$) and control group ($n = 30$). Resilience training was given to the experimental group thrice a week for nearly 2 months, and control group was not given any training. Data were collected at three time periods, i.e., before training, a week after training, and 2 months after training. The statistical analysis, using repeated measures analysis of variance (RMANOVA) was carried out. The results revealed that resilience training was effective in enhancing resilience, job satisfaction, and psychological well-being of female police officers and in reducing occupational stress. Medium effect sizes were reported. The qualitative feedback was positive regarding the resilience training program, supporting the empirical evidence for the effectiveness of resilience training program. The study had implications for theory and practice in police research.

Keywords Resilience training · Psychological well-being · Stress · RCT · Female police officers

Policing is considered one of the most stressful occupations, exposing officers to occupational, organizational, and personal stressors (Bano 2011; Berg et al. 2006; Saha et al. 2010; Violanti 2008). Despite the growing awareness of stress-related problems among police officers and ongoing efforts to address this issue, psychological and physical problems in policing continue to grow at an alarming rate (Violanti 2008). In India, the National Crime Records Bureau (NCRB) statistics for 2012 revealed that 280 police personnel died while in service, of which 58 had committed suicide and 60 died in road accidents (National Crime Records Bureau (NCRB) 2012). Psychological health problems in high stress police jobs are costly to both the individual and the organization.

Researchers have found that female police officers are probably under more stress than male officers (Lipp 2009; Violanti 2008; Yoo and Franke 2010). Apart from the inherent stress in the police job, female police officers face many challenges like higher levels of harassment, bias, underestimation of physical abilities, discrimination, and hostile work environment (Chaiyavej and Morash 2008; Morash et al. 2006; Shelley et al. 2011; Thompson et al. 2006). These stressors, in addition to child care and managing the household (Hall et al. 2010; Kurtz 2012; Natarajan 2014; Roebuck et al. 2013; Violanti 2008), predispose female police officers to the harmful effects of stress (Gachter et al. 2009; He et al. 2002; Karunanidhi and Chitra 2014b; McCarty et al. 2007). A research project by the Bureau of Police Research and Development (BPRD), India stated that 62.7% of female police officers reported that their job was stressful (Karunanidhi and Chitra 2014b).

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In Indian context, the main duties of a female police officers involve, performing law and order duties, guard duties, traffic regulations, and attending to complaints in police stations. Apart from these regular duties, they are expected to counsel female victims, mediate in family disputes and family problems related to dowry, counsel female relatives of the offenders, interrogate female victims in case of rape, family disputes, etc. The law in India demands that a female police representative must be present while arresting, searching, questioning, holding, or transporting a female accused, or when a female victim is examined.

Although the number of female officers in the police force has increased over the years (from 20 numbers in 1975 to more than 15,000 in 2012 (Government of Tamil Nadu 2012), the knowledge and information about their difficulties and uniqueness of their problem have been less understood due to paucity of studies in this area. In the studies conducted in other countries which have included female police officers, the results could not be compared with male officers due to inadequate representation of female police officers in that study (Biggam et al. 1997; Kohan and Mazmanian 2003; Malach-Pines and Keinan 2006; Pasillas et al. 2006). The trend in the rise in female criminality, greater awareness of weaker sections for equality and social justice, increase in juvenile delinquency and destitution, and rise in atrocities on women (National Crime Records Bureau 2012) are some of the situations that not only make the presence of female officers in police force desirable, but also indicate a trend that the expansion of female police officers in future is inevitable. This trend also reinforces the need to nurture the psychological well-being of female police officers which would be beneficial not only to themselves but also for their co-workers and to the public, given their responsibility to protect the safety of citizens and maintaining a peaceful environment. Therefore, majority of the previous studies have given recommendations for counseling and training interventions for female police officers (Banu 1995; Karunanidhi and Chitra 2014b; McCarty et al. 2007; Sundaram and Kumaran 2012; Suresh 1992).

Most of the stressors faced by police officers in their profession include encountering victims of crime and fatalities, violent/unpredictable situations, public scrutiny and media coverage, and multiple role conflicts are not controllable (Violanti 2008). In view of the uncontrollable nature of stressors in policing, resilience research has the potential to enhance understanding of this population and provide insight into possible interventions. Resilience is tied to the ability to learn to live with ongoing fear and uncertainty and the ability to adapt to difficult and challenging life experiences (Meichenbaum 2005). In policing context, resilience is both psychological and physiological flexibility in the face of adversity, self-awareness, and control over one's physiological stress responses to threat and recovery from exposures beyond one's control (Masten 2014). Resilience is related to positive self-ratings of physical health and physical symptoms (Judkins 2004; Soderstrom et al. 2000) and inversely related to depression and anxiety (Beasley et al. 2003). Schaubroeck et al. (2011) stated that people with high levels of resiliency still experienced stress and symptoms of health problem, but they got over them relatively quickly compared with a person with low resilience.

In their theory of stress and coping, Lazarus and Folkman (1984) defined stress as a transaction between the person and the environment, whereby individuals appraise environmental demands as outweighing their abilities to meet those demands. From this transactional/interactive perspective, resilience as a personal quality in the current study may positively impact individuals' appraisals of stressful situations. Several researchers have used resilience to directly predict a number of well-being outcomes including depression (Loh et al. 2014), job satisfaction (Luthans et al. 2007), and subjective well-being (Liu et al. 2014). Literature suggests that although job satisfaction is generally thought to be motivated by salary and benefits, it is influenced by personality dispositions (Judge et al. 1998; Rush et al. 1995). According to this perspective, individual's perception of satisfaction is influenced by their resilience (Ablett and Jones 2007; McCalister et al. 2006). Mohamaddi and Khedmatian (2017) reported positive relationship between resilience and job satisfaction. Further he recommended researchers to design appropriate training programs and create feelings and positive attitudes in person, to increase one's job satisfaction.

According to the protective model of resilience (Garmezy et al. 1984), assets or resources moderate or reduce the effects of a risk on a negative outcome. Protective factors may operate in several ways to influence outcomes. They may help to weaken the effects of risks or they may enhance the positive effect of another promotive factor in producing an outcome.

Among the existing psychosocial interventions such as cognitive behavior therapy (CBT), stress inoculation training and life skills training, resilience training is a recently researched concept (Connor and Zhang 2006; Earvolino-Ramirez 2007; Windle et al. 2008). While traditional stress management and therapy approaches generally target problems once they have arisen, resilience-building approaches train individuals to anticipate stress and prepare in advance to minimize its impact by weathering the storm. Research on resilience training in the workplace has provided evidence that resilience is amenable to change (Arnetz et al. 2009; Grant et al. 2009; Sood et al. 2011). Resilience training has been found to have a positive impact on various mental health and subjective well-being outcomes like lowered stress, depression, and negative affect (Arnetz et al. 2009; Burton et al. 2010; Grant et al. 2009; Millear et al. 2008; Pipe et al. 2012; Robertson et al. 2015). Literature on police resilience programs, aimed at anxiety, depression, negative emotion, stress, and vitality used relaxation methods, imagery, mental

rehearsal, and self-regulation methods (Arnetz et al. 2009; McCraty and Atkinson 2012).

Resilience training programs aimed at emotions, stress, mental health, and personal growth included several modalities singly or in combination, including protective factors like self-awareness, emotional management, interpersonal communication, problem solving, and social support ability (Xin et al. 2011a; b), CBT strategies (Burton et al. 2010), building resilient relationships (Waite and Richardson 2003), psychoeducation (Burton et al. 2010), and mindfulness techniques (Chopko and Schwartz 2013). Most researchers involved in resiliency inquiry have predominantly focused on identifying the multitude of protective factors, protective mechanisms, or resilient qualities that act to buffer the effects of stress, adversity, disruptions, or change (Diener 2000; Werner and Smith 1992).

The intervention we evaluated in the present study is based upon the protective model of resilience (Garmezy et al. 1984). The training drew on the transactional model of stress and coping (Lazarus and Folkman (1984) and positive psychology. Personal protective factors chosen for the current intervention were self-awareness (Baum et al. 2009; Hippe 2004; Xin et al. 2011a; b), positive attitude (Mohamaddi and Khedmatian 2017; Schaubroeck et al. 2011; Yu and Zhang 2007), emotional management (Berking et al. 2010; Xin et al. 2011a; b), and interpersonal communication skills (Connor and Davidson 2003; Keyes and Lopez 2002; Ryff and Singer 2003; Xin et al. 2011a; b).

The training program utilized psychological evidence-based frameworks such as cognitive behavioral approaches, mindfulness, and relaxation techniques. Cognitive–behavioral strategies focus on identifying and changing maladaptive thinking and behavior that can create stress and exacerbate its negative effects. Psychoeducation increases personal knowledge about the causes of and contributors to stress and the cognitive, emotional, behavioral, and physiological effects of stress. Relaxation techniques (diaphragmatic breathing, muscle relaxation, guided imagery) are designed to reduce the physiological stress response so that the negative effects on well-being that these responses can have are reduced or eliminated. Mindfulness practice allows the participants to focus on becoming aware of all incoming thoughts and feelings and accepting them but not attaching or reacting to them.

Based on the extensive review of literature and the paucity of such studies in the Indian context, the following objectives were formulated for the present study:

1. To develop resilience training program for and to assess the effect of resilience training on occupational stress, level of resilience, job satisfaction, and psychological well-being of female police officers.
2. To find out the sustainability of resilience training among female police officers.

The resilience training was structured to deal with the physiological, behavioral, cognitive, and emotional aspects of female police officers. The program is proactive, as the goal of the program is not to eliminate stress but to make them more resilient in face of present and future adversities, by improving their personal resources (Connor and Zhang 2006). Our intention was to develop or strengthen factors that can serve as potential latent reserves (within a person), who are prone to experience stressful encounters in their everyday life.

Methodology

Participants and Procedure

The sampling frame for the present survey is composed of 1156 female constables (Statistical section, Commissioner's office, Chennai as on 01 Jan 2012) working in Armed Reserve (AR) police unit in Chennai City, India (see Appendix 1). Permission for survey and intervention was sought from the Commissioner's office, Chennai. Before the survey, the participants provided written consent to participate in the survey and intervention. AR police was chosen because previous research has shown that female police officers working in this unit experienced poor psychological well-being and high occupational stress (Karunanidhi and Chitra 2014b). The same study also reported that female police officers with more years of experience, are more likely to experience high occupational stress. Resilience training had better implications for people with low resilience (Wells 2010). Based on these findings, 250 female police officers who met the established criteria of minimum of 3 years of professional experience, participated in the survey which screened them on resilience. Out of which, 237 data were only appropriate for analysis due to incomplete information. The ages of the sample ranged from 23 to 41 years with an average age of 27 years. Their experience ranged from 3 to 14 years with an average experience of 5 years and 7 months.

Female police officers who reported physical illness, pregnancy, and on long leave, were excluded from the study, as these factors may confound the study outcomes. Sixty-eight participants who satisfied the inclusion criteria of low in resilience were further selected for the intervention study. This was found using quartile deviation analysis, wherein those who scored less than the 75th percentile on resilience scale was taken as low in resilience. Out of 68, only 63 female police officers were available for further study. The selection process is depicted in Fig. 1.

After follow-up assessment, we collected feedback of the intervention by giving a form and also conducted focus group discussion to examine participant's opinion of the perceived effectiveness of the resilience training program.

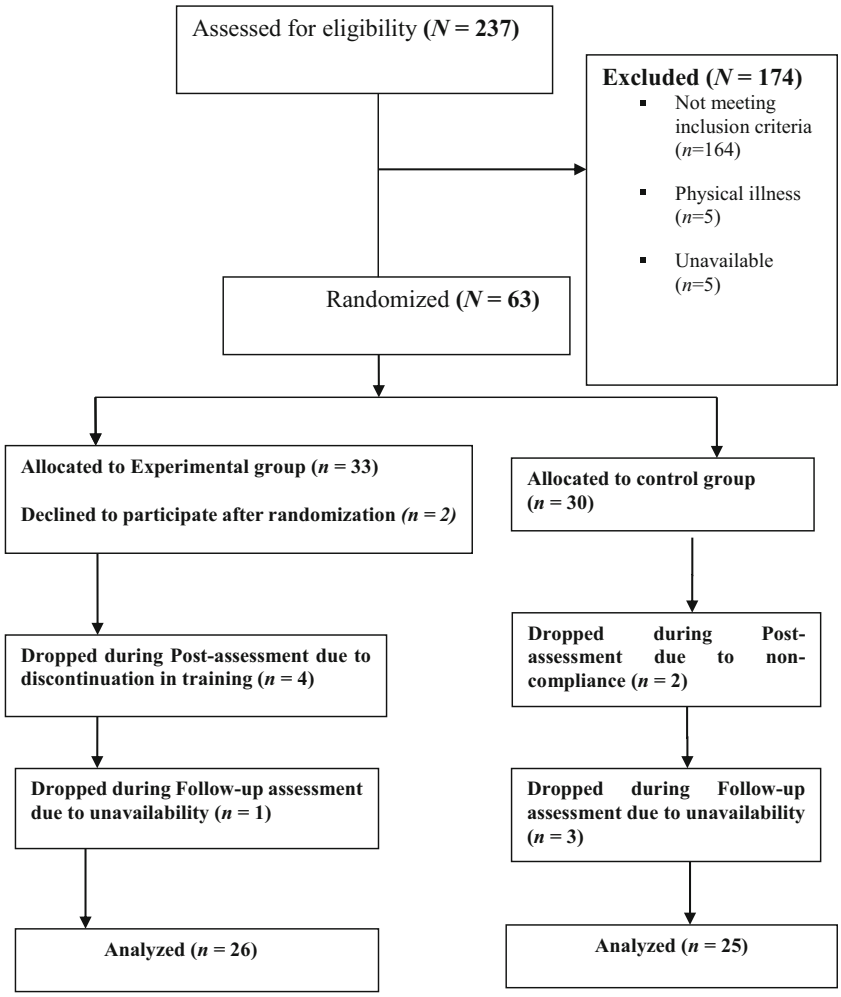

Fig. 1 Diagrammatic representation of the sample selection for the study

Research Protocol

We took steps to minimize bias and maximize validity. Randomized pre-test, post-test, follow-up design (Rausch et al. 2003) was adopted with resilience training program as independent variable and occupational stress, resilience, job satisfaction, and psychological well-being as dependent variables. Allocation concealment procedure was followed to avoid selection bias. The participants were assigned to experimental and control groups, using random table technique with the help of a statistician. So, the statistician as well as the researcher remained blind to what condition the individuals in the study will enter. No-treatment control group was used in this study. However, participants from the control group were offered one full day training program and free counseling services, after the completion of the follow-up assessment. We further checked for equivalency of two groups on all dependent and demographic variables in the baseline, to address selection bias. The steps followed in the research is depicted in Fig. 2.

In psychosocial interventions, blinding procedures are rarely possible, unlike in medical trials. However, a state of equipoise was maintained, wherein the researcher and the participants held equally positive expectations about the merits of the experimental and control conditions. We did not investigate the collected data till the follow-up assessment. We ensured collection of data from both the groups at the same time during three different assessment periods. Treatment fidelity was ensured to avoid type-I and type-II errors. This also allows replication and dissemination of a well-characterized intervention. Training was given by the researcher who is a psychologist and a well-trained professional with ample experience in the field of psychosocial training.

Fig. 2 Diagrammatic representation of the steps followed in the study

Resilience Intervention

The resilience intervention included 20 h group sessions of 1 and 1/2 h duration held thrice a week for a period of approximately 2 months at the in-service training center in police premises. The program was delivered in their mother tongue, i.e., Tamil, as they were not proficient in English language.

The training program used an experiential approach which included psychoeducation, reflection, role-playing, modeling, self-monitoring of responses, and image-guided relaxation. Practice of skills and homework in between sessions was emphasized to the participants. At the beginning of every session, the trainer reviewed the learning of the previous session. The trainer also checked their adherence to the homework assignments. At the end of every session, the trainer gave last 10 min to the participants to reflect on their learnings. The trainer motivated the participants to realize and reflect on the experiences and not just intellectually learn from the program. The outline of the resilience training intervention is given in Table 1.

During introduction session, the trainer explained the concept of resilience using Garmezy et al.'s (1984) protective model. The trainer explained the importance of one's inner strength which can make a difference to their stress and poor well-being, amidst adversity. Icebreaker was used during this session to know each other and to facilitate active participation. The second session, self-awareness module, focused on being aware of one's strengths, weaknesses, values, and motives, which is considered the first step to change oneself for the better.

During the sessions on positive attitude module, the trainer helped the participants to be aware of their current attitude through activities. The trainer discussed the significance of meaning and purpose of life and job satisfaction using Frankl (1984) logo therapy concepts and Locke's (1976) affect theory of job satisfaction. The trainer helped the participants to prioritize and synchronize one's work values according to the benefits available in their profession. Activities like work-value assessment, role-play, case studies, chart presentation, positive affirmations, and home-work assignments were given to develop self-esteem, improving gratitude and job motivation of the participants.

Emotional management module focused on cognitive-behavioral techniques. The trainer began by explaining about the cognitive model developed by Beck (1976) and described how one's interpretation (cognition) of the situation can cause various feelings (emotions and physical sensations) and behavior. The trainer used psychoeducation to create awareness among the participants about thoughts, feelings, and behavior. Cognitive distortions were also explained to them, and activities were given to understand the same. They were encouraged to share few experiences from their life, relating to the cognitive model. These techniques helped participants to realize that they may not always be able to influence what happens to them, but they do have a powerful influence in how to interpret what happens to them and how to deal with it.

The trainer also discussed various cognitive, behavioral, and physiological strategies to cope with maladaptive emotions, in times of unavoidable stress. Techniques like positive self-talk, relaxation and guided imagery, emotional expression journal, thought distraction and mindfulness techniques were taught to them. They were asked to choose appropriate techniques from the many techniques taught to them for use in real-life situations.

The last module on interpersonal skills focused on helping the participants that promote the development and maintenance of relationships which would assist in coping with stressful life experiences. The concepts covered in this module were two-way communication, awareness of various barriers to effective communication, non-verbal communication, active listening, paraphrasing, perception check, empathy, assertive communication, verbal and non-verbal expression of feelings, identification of feelings in others and conflict resolution skills. Activities like role-play, modeling, case study, home-work assignments were used to attain the objectives of this module.

During the last session, the trainer consolidated the learnings and provided them with general maintenance plan and handouts and encouraged them to practice the learnings.

Variables and Tools

We used Occupational Stress Inventory (OSI) developed by Karunanidhi and Chitra (2014a), to measure occupational stress of female police officers. It is a 71-item scale which measured various sources of occupational stress of female police officers. It has six dimensions namely, operational hassles, external factors, hazards of occupation, physical working conditions, women-related stress, and supervisory stress (see Appendix 1). Four-point Likert Scale (0–3) was used as response scale, with higher scores reflecting high occupational stress. The scale exhibited construct validity with the sample of 1583 female police officers in a study conducted by Karunanidhi and Chitra (2014a). The scale has been tested in the police population and has demonstrated good internal consistency which ranged from $\alpha = 0.85$ to 0.93 in the current study.

We chose Connor-Davidson Resilience Scale (CD-RISC), by Connor and Davidson (2003), to measure resilience, because it distinguishes between those with greater and lesser resilience and used widely in intervention studies. CD-RISC is a self-report measure composed of 25 items, each rated on a 5-point scale (0–4), with higher scores reflecting greater resilience. A time frame of 1 month was used to measure the items of this scale. The internal consistency of the scale for the current study was $\alpha = 0.87$.

Job satisfaction was measured using global scale of job satisfaction, namely, overall job satisfaction scale (Brayfield and Rothe 1951). The original scale consisted of 18 items,

with Likert scale ranging from 4 (*strongly agree*) to 0 (*strongly disagree*). For the present study, a few modifications were made to the original scale to suit the Indian population. The scale with similar modifications (14 items) was tested for internal consistency in a sample of 1570 female police officers and the resulting Cronbach Alpha was 0.89. The internal consistency of the job satisfaction scale for the current study was $\alpha = 0.87$.

We assessed psychological well-being using, The Psychological General Well-being Index (PGWBI) by Dupuy (1984). The items were rated on a four-point Likert scale which is different for each item, ranging from 0 to 3. We used it as the tool focuses on positive aspects of well-being and avoids relationship to specific conditions or physical symptoms, and it has a general utility with a range of populations from psychiatric cases to healthy individuals. PGWBI is a 22 item measures and has six dimensions namely anxiety, depressed mood, positive well-being, self-control, general health, and vitality. The original response option of the PGWBI was six, and it was modified to four, to enhance the understanding of the respondents. The changes made to PGWBI were approved by five experts in the field of psychology. The internal consistency of the PGWBI ranged from $\alpha =$ 0.64 to 0.94 for the current study.

The participants were not proficient with English language, so all the measures were translated to Regional language Tamil. Standardized version of OSI and job satisfaction were available in Tamil, and remaining measures CD-RISC and PGWBI were translated to Tamil for this study. The steps followed in translation are furnished in Appendix 2. Certain concepts and terms used in the study are explained in Appendix 1.

Data Analysis

We used Statistical Package for Social Sciences (SPSS-Version 17) to carry out the data analysis. Before the data analysis, we made certain relevant checks like scale of measurement, normality of distribution, test of homogeneity and sphericity. We conducted 2 × 3 repeated measures analysis of variance (2 × 3 RMANOVA), with one between subject (group) and one within subject (trial) using general linear model approach (Howell 1997). We also computed trend analysis to find out the change of trend in the dependent variable over a period for the groups. Multiple comparisons with Bonferroni adjustment was also carried out to account for the potential inflation of type-I error that can result from multiple comparisons (0.05/3 comparisons = 0.017). In RMANOVA, we used the generally accepted regression benchmark for effect size (partial eta square-η^2) from Cohen (1988), Cohen 1992), to quantify the magnitude of the treatment effect: $\eta^2 > 0.04$ is small effect; $\eta^2 = 0.25$ is a medium effect; and $\eta^2 > 0.64$ is a large effect size (Cohen 1992; Keppel and Wickens 2004).

Results

The baseline data was tested for homogeneity on demographic and psychosocial variables using chi-square tests and *t* tests. The results furnished in Tables 2 and 3 reveals that experimental and control group were homogeneous during baseline assessment. No differences were found between those female police officers who completed the study and those who did not ($p > 0.05$).

Occupational Stress

RMANOVA on overall occupational stress (see Table 4) indicated significant main effect for trials and significant interaction effect between trials and groups. However, analysis revealed no significant main effects for group. The post hoc multiple comparisons revealed that there was significant difference in the occupational stress during pre-post-assessment and pre-follow-up assessment in the experimental group. The mean scores in Table 5 revealed that the overall occupational stress in experimental group reduced during post-assessment and further reduced during follow-up; however, the mean difference for post-follow-up period was not significant. The effect size signified that the magnitude of change in occupational stress scores (43%) across the trials for experimental group was much higher than the control group where the effect was only 1%. The trend analysis for overall occupational stress showed significant changes in the linear component of occupational stress for trial × group interaction, $F(1, 49) = 18.30$, $p < 0.01$ and for trial, $F(1, 49) = 16.36$, $p < 0.01$. The overall occupational stress scores of the experimental group decreased gradually across the trials, signifying linear trend (see Fig. 3). This revealed that trend pattern of occupational stress was different for both the groups.

Further RMANOVA on dimensions of occupational stress revealed significant main effects for trials. However, the significant main effects for the group was observed only in

Table 1 Outline of the intervention

Sl. No.	Module	Number of sessions
1.	Introduction	1
2.	Self-awareness	1
3.	Positive attitude	3
4.	Emotional management	7
5.	Interpersonal skills	7
6.	Consolidation	1

Table 2 Homogeneity between groups on demographic variables ($N = 63$)

Sl. No.	Variables	Frequency		*df*	χ^2
		Experimental group ($n = 33$)	Control group ($n = 30$)		
1.	Marital status				
1.1.	Married	15 (53.6)	13 (46.4)	1	0.02 NS
1.2.	Unmarried	16 (55.2)	13 (44.8)		
	Missing data	2	4		
2.	Child Status				
2.1.	Yes	9 (60.0)	6 (40.0)	1	0.54 NS
2.2.	No	6 (46.2)	7 (53.8)		
3.	Level of education				
3.1.	10th/plus 2	8 (66.7)	4 (33.3)		
3.2.	Undergraduates	14 (48.3)	15 (51.7)	2	1.16 NS
3.3.	Postgraduates	10 (52.6)	9 (47.4)		
	Missing data	1	2		

Note. Figures in parentheses are in percentage

NS, not significant

women-related stress and supervisory stress dimension of occupational stress. Significant interactions between trials and groups were found for all dimensions of occupational stress except operational hassles. Further, the post hoc multiple comparisons revealed that the perception of occupational stress arising out of hazards of occupation, physical working conditions, and women-related stress significantly decreased immediately after resilience training in the experimental group, and these changes were sustained till the follow-up assessment. The perception of occupational stress arising out of external factors significantly decreased immediately after resilience training in the experimental group. Further significant reduction was also found during follow-up assessment. The perception of occupational stress arising out of supervisor stress did not significantly reduce immediately after resilience training in the experimental group. However, significant reduction in this dimension was found only during the post-follow-up period. There were no significant changes found in the overall occupational stress and its dimensions during the pre-post- and post-follow-up assessment in the control group.

The effect size indicating the magnitude of change in occupational stress and its dimensions ($\eta p^2 = 0.276$ to 0.49) across the trials in the experimental group, indicated medium effect. However, the effect size for all occupational stress outcome variables across trials in the control group ranged from 0.00 to 0.057, denoting negligible effect.

Resilience

RMANOVA on resilience (see Table 4) indicated significant main effect and also significant interaction effect between trials and groups. The post hoc multiple comparisons revealed that there was significant difference in the resilience scores during pre-post-assessment and pre-follow-up assessment in the experimental group. The mean scores in Table 5 revealed that resilience in experimental group increased during post-assessment and further increased during follow-up; however, the mean difference was not significant. There was also significant difference in the resilience scores of participants assigned to experimental and control group. There were no significant changes found in the resilience scores during the pre-post- and post-follow-up assessment in the control group.

The effect size signified that the magnitude of change in resilience scores (43%) across the trials for the experimental group was much higher than the control group where the effect was nearly 2%. The trend analysis for resilience showed significant changes only in linear component, $F(1, 49) = 9.82$, $p < 0.01$ for trial × group interaction and significant changes in both linear, $F(1, 49) = 18.62$, $p < 0.01$ and quadratic component, $F(1, 49) = 4.38$, $p < 0.05$ for trials. As the linear component was greater than the quadratic component, it can be inferred that resilience scores showed linear trend across the trials. Resilience scores of the experimental group increased gradually across the trials (see Fig. 4). This revealed that trend pattern of resilience was different for both the groups.

Job Satisfaction

RMANOVA on job satisfaction (see Table 4) indicated significant main effect and significant interaction effect between trials and groups. The post hoc multiple comparisons revealed that there was significant difference in the job satisfaction scores during pre-post-assessment and pre-follow-up assessment in the experimental group. The mean scores in Table 5 revealed that job

Table 3 Homogeneity between groups on demographic and psychosocial variables ($N = 63$)

Sl. No.	Variables	M ± SD		*df*	*t*
		Experimental group ($n = 33$)	Control group ($n = 30$)		
1.	Age	26.88 ± 2.09	28 ± 2.78	61	1.82 NS
2.	Experience	4.97 ± 1.36	5.47 ± 1.89	52[a]	1.19 NS
1.	Psychological well-being	38.52 ± 10.89	40.53 ± 10.47	61	0.75 NS
1.1.	Positive well-being	5.64 ± 2.10	6.47 ± 2.22	61	1.52 NS
1.2.	Self-control	6.24 ± 1.66	6.43 ± 1.68	61	0.45 NS
1.3.	Anxiety	8.55 ± 3.20	9.07 ± 3.25	61	0.64 NS
1.4.	Depression	5.42 ± 1.77	5.97 ± 1.45	61	1.32 NS
1.5.	Vitality	7.03 ± 2.19	7.00 ± 1.68	61	0.06 NS
1.6.	General health	5.64 ± 1.98	5.60 ± 2.19	61	0.07 NS
2.	Occupational stress	74.42 ± 22.50	76.23 ± 21.42	61	0.24 NS
2.1.	Operational hassles	9.91 ± 3.20	9.60 ± 3.75	61	0.15 NS
2.2.	External factors	10.55 ± 3.15	10.37 ± 3.25	61	0.13 NS
2.3.	Hazards of occupation	20.06 ± 6.49	19.70 ± 6.63	61	0.22 NS
2.4.	Physical working conditions	12.67 ± 3.75	12.87 ± 3.25	61	0.15 NS
2.5.	Women-related stress	12.15 ± 3.51	12.83 ± 5.61	48 [a]	0.57 NS
2.6.	Supervisory stress	9.09 ± 2.35	10.87 ± 3.10	61	1.04 NS
3.	Resilience	58.12 ± 12.28	60.07 ± 13.45	61	0.60 NS
4.	Job satisfaction	32.73 ± 9.03	31.33 ± 9.59	61	0.59 NS

NS, not significant

[a] *df* adjusted for Levene's test for equality of variances

satisfaction in experimental group increased during post-assessment and it was maintained during follow-up. There was also significant difference between experimental and control group on job satisfaction scores. There were no significant changes observed in the job satisfaction scores during the pre-post- and post-follow-up assessment in the control group.

The effect size signified that the magnitude of change in the job satisfaction scores (54%) across the trials for the experimental group was much higher than the control group where the effect was nearly 4.2%. The trend analysis for the overall job satisfaction showed significant changes in both the linear, $F\ (1,\ 49) = 11.48,\ p < 0.01$ and the quadratic component, $F(1,\ 49) = 16.71,\ p < 0.01$ for trial × group interaction. The results also indicated significant changes in job satisfaction for trials in both the linear, $F(1,\ 49) = 30.04,\ p < 0.01$ and the quadratic component, $F(1,\ 49) = 24.51,\ p < 0.01$. This revealed that the trend pattern of job satisfaction was different for both the groups. As linear component was greater than quadratic component for trials, it can be inferred that the job satisfaction scores showed linear trend across the trials. Figure 5 shows that the job satisfaction scores of the experimental group increased during pre-post-assessment denoting linear trend; however, there was insignificant slight decline found during post-follow-up assessment.

Psychological Well-being

RMANOVA on psychological well-being (see Table 4) indicated significant main effects and significant interaction effect between trials and groups. The post hoc multiple comparisons revealed that there was a significant difference in the psychological well-being during the pre-post-assessment and the pre-follow-up assessment in the experimental group. The mean scores in Table 5 revealed that overall psychological well-being in the experimental group increased during the post-assessment and further increased during the follow-up, however the mean difference for the post-follow-up period was not significant. Further, there was also significant difference in the psychological well-being scores of female police officers assigned to the experimental and control group. There were no significant differences in psychological well-being scores across the trials in the control group. The effect size signified that the magnitude of change in psychological well-being scores (46%) across the trials for the experimental group was much higher than the control group where the effect was only 3.2%.

The trend analysis for overall psychological well-being showed significant changes in the linear component for trial × group interaction, $F(1,\ 49) = 15.65,\ p < 0.01$. The results further showed significant changes in the linear, $F(1,\ 49) =$

Table 4 Results of repeated measured analysis of variance for the outcome variables

Variable	Trial effect			Group effect			Trial × group		
	F (*df*)	*p*	Partial eta squared ηp^2	*F* (*df*)	*p*	Partial eta squared ηp^2	*F* (*df*)	*p*	Partial eta squared ηp^2
OST (total)	10.03 (1.56, 76.33)[a]	0.01	0.17	3.72 (1, 49)	0.06	0.07	10.51 (1.56, 76.33)[a]	0.01	0.18
OSI (operational hassles)	10.72 (1.47, 71.83)[a]	0.00	0.18	0.79 (1, 49)	0.38	0.02	2.51 (1.47, 71.83)[a]	0.10	0.05
OSI (external factors)	9.15 (1.74, 85.36)[a]	0.00	0.16	1.23 (1, 49)	0.27	0.03	9.42 (1.74, 85.36)[a]	0.00	0.16
OSI (hazards of occupation)	4.15 (2, 98)	0.02	0.08	1.19 (1, 49)	0.28	0.02	4.41 (2, 98)	0.02	0.08
OSI (physical working condition)	5.49 (1.74, 85.19)[a]	0.01	0.10	3.81 (1, 49)	0.06	0.07	10.27 (1.74, 85.19)[a]	0.00	0.17
OSI (women-related stress)	3.68 (1.76, 86.23)[a]	0.03	0.07	5.17 (1, 49)	0.03	0.10	9.98 (1.76, 86.23)[a]	0.00	0.17
OSI (supervisory stress)	3.35 (1.71, 83.53)[a]	0.05	0.06	4.28 (1, 49)	0.04	0.08	6.83 (1.71, 83.53)[a]	0.00	0.12
Resilience	13.56 (2, 98)	0.00	0.22	6.66 (1, 49)	0.01	0.12	7.15 (2, 98)	0.00	0.13
Job satisfaction	28.43 (1.51, 74.18)[a]	0.00	0.37	9.90 (1.49)	0.00	0.17	13 (1.51, 74.18)[a]	0.00	0.21
PWB (total)	21.11 (1.53, 75.05)[a]	0.00	0.30	3.95 (1.49)	0.05	0.08	11.53 (1.53, 75.05)[a]	0.00	0.19
PWB (positive well-being)	19.62 (1.61, 79.05)[a]	0.00	0.29	3.36 (1.49)	0.07	0.06	16.65 (1.61, 79.05)[a]	0.00	0.25
PWB (self-control)	10.20 (1.54, 75.20)[a]	0.00	0.17	0.98 (1, 49)	0.33	0.02	4.05 (1.54, 75.20)[a]	0.03	0.08
PWB (anxiety)	9.51 (1.49, 72.92)[a]	0.00	0.16	3.45 (1, 49)	0.07	0.07	9.07 (1.49, 72.92)[a]	0.00	0.16
PWB (depression)	10.81 (1.67, 81.58)[a]	0.00	0.18	3.49 (1, 49)	0.07	0.07	10.81 (1.67, 81.58)[a]	0.00	0.18
PWB (vitality)	16.01 (1.76, 86.11)[a]	0.00	0.25	4.76 (1, 49)	0.03	0.09	3.97 (1.76, 86.11)[a]	0.03	0.08
PWB (general health)	12.41 (2, 98)	0.00	0.20	1.64 (1, 49)	0.21	0.03	1.14 (2, 98)	0.33	0.02

Note. OST, occupational stress; *PWB*, psychological well-being

[a] *df* adjusted as per the Greenhouse-Geisser for within-subject effects

25.21, $p < 0.01$ and the quadratic component, $F(1, 49) = 11.69$, $p < 0.01$ of psychological well-being for trials. The overall psychological well-being scores of the experimental group increased gradually across the trials, signifying linear trend (see Fig. 6). This revealed that the trend pattern of psychological well-being was different for both the groups.

RMANOVA on dimensions of psychological well-being revealed significant main effects for the trials. However, significant main effects for the group was observed in vitality dimension of psychological well-being. Significant interactions between the trials and the groups were found for all dimensions of psychological well-being except general health.

Further, the post hoc multiple comparisons (see Table 5) revealed that the dimensions of psychological well-being such as positive well-being and vitality significantly improved immediately after resilience training in the experimental group and these changes were sustained till the follow-up assessment. Psychological well-being dimensions such as anxiety and depression significantly decreased immediately after resilience training in the experimental group, and these changes were sustained till the follow-up assessment. The self-control dimension of psychological well-being did not significantly improve immediately after resilience training in the experimental group. However, significant improvement was found only during the follow-up period. There were no significant changes found in the overall psychological well-being and its dimensions during the pre-post- and post-follow-up assessment in the control group.

The effect size indicating the magnitude of change in psychological well-being and its dimensions ($\eta p^2 = 0.272$ to 0.506) across the trials in the experimental group, indicated medium effect. However, the effect size for all psychological well-being outcome variables across trials in the control group ranged from 0.012 to 0.095, denoting negligible effect.

On analyzing the responses to a questionnaire on evaluating the resilience training program, it was found that vast majority of the participants strongly agreed to all aspects pertaining to the quality of the training program (see Table 6).

Discussion

In the current study, resilience training program was developed for female police officers, based on the protective model. It is a program aimed to improve protective factors such as self-awareness, positive attitude towards self, job, and life, emotional management, and interpersonal skills. This program is developed to help female police officers become resilient, to deal proactively with exposure to stress in their occupation, to improve job satisfaction and consequently their psychological well-being. This study explored the impact of resilience training on occupational stress, resilience, job satisfaction, and psychological well-being among female police

Table 5 Experimental and control outcome measures ($N = 51$)

Variable	Experimental group ($n = 26$) M ± SD	Control group ($n = 25$) M ± SD
OSI (overall)		
Pre-assessment	78.96 ± 28.87[a]	77.56 ± 29.38 NS
Post-assessment	60.00 ± 25.35 NS	76.92 ± 23.79 NS
Follow-up	54.69 ± 27.46[a]	78.24 ± 25.22 NS
OSI (operational hassles)		
Pre-assessment	10.62 ± 3.20[a]	10.08 ± 3.75 NS
Post-assessment	5.42 ± 1.75 NS	8.28 ± 2.20 NS
Follow-up	6.65 ± 1.83[a]	8.68 ± 2.24 NS
OSI (external factors)		
Pre-assessment	11.19 ± 3.15[a]	10.68 ± 3.12 NS
Post-assessment	8.85 ± 2.20[a]	9.60 ± 2.58 NS
Follow-up	6.77 ± 1.23[a]	10.76 ± 2.85 NS
OSI (hazards of occupation)		
Pre-assessment	20.92 ± 6.70[a]	19.96 ± 6.03 NS
Post-assessment	17.15 ± 5.92 NS	20.08 ± 5.84 NS
Follow-up	17.04 ± 7.01[a]	19.96 ± 5.33 NS
OSI (physical working condition)		
Pre-assessment	13.50 ± 3.15[a]	12.84 ± 2.85 NS
Post-assessment	10.38 ± 2.85 NS	13.80 ± 3.15 NS
Follow-up	9.19 ± 2.25[a]	13.36 ± 3.12 NS
OSI (women-related stress)		
Pre-assessment	12.81 ± 3.02[a]	12.84 ± 3.10 NS
Post-assessment	10.12 ± 3.15 NS	14.12 ± 3.51 NS
Follow-up	8.96 ± 2.25[a]	13.64 ± 2.75 NS
OSI (supervisory stress)		
Pre-assessment	9.92 ± 2.25 NS	11.16 ± 2.75 NS
Post-assessment	8.08 ± 2.12[a]	11.04 ± 2.56 NS
Follow-up	6.08 ± 1.75[a]	11.84 ± 2.89 NS
Resilience		
Pre-assessment	59.69 ± 11.13[a]	60.24 ± 12.58 NS
Post-assessment	71.77 ± 12.45 NS	62.16 ± 11.38 NS
Follow-up	74.58 ± 11.37[a]	62.60 ± 13.62 NS
Job satisfaction		
Pre-assessment	32.15 ± 8.69[a]	31.16 ± 8.56 NS
Post-assessment	42.81 ± 5.02 NS	32.88 ± 7.56 NS
Follow-up	42.15 ± 5.51[a]	33.52 ± 8.64 NS
PWB (overall)		
Pre-assessment	38.19 ± 10.58[a]	40.32 ± 10.99 NS
Post-assessment	48.88 ± 7.40 NS	42.60 ± 9.21 NS
Follow-up	51.04 ± 8.12[a]	41.88 ± 9.84 NS
PWB (positive well-being)		
Pre-assessment	5.73 ± 2.11[a]	6.64 ± 2.34 NS
Post-assessment	8.31 ± 1.62 NS	6.88 ± .09 NS
Follow-up	8.73 ± 1.78[a]	6.68 ± 2.04 NS
PWB (self-control)		
Pre-assessment	6.08 ± 1.76 NS	6.32 ± 1.89 NS
Post-assessment	6.77 ± 1.42[a]	6.60 ± 1.38 NS
Follow-up	7.77 ± 1.18[a]	6.72 ± 1.31 NS
PWB (anxiety)		
Pre-assessment	8.38 ± 3.18[a]	9.04 ± 3.41 NS
Post-assessment	11.12 ± 1.95 NS	9.28 ± 2.76 NS
Follow-up	11.38 ± 2.17[a]	8.92 ± 3.23 NS
PWB (depression)		
Pre-assessment	5.31 ± 1.76[a]	5.84 ± 1.43 NS
Post-assessment	6.85 ± 1.16 NS	6.00 ± 1.53 NS
Follow-up	7.23 ± 1.07[a]	5.76 ± 1.67 NS
PWB (vitality)		
Pre-assessment	7.04 ± 2.03[a]	6.96 ± 1.79 NS
Post-assessment	8.81 ± 1.47 NS	7.56 ± 1.78 NS
Follow-up	8.96 ± 1.82[a]	7.60 ± 1.85 NS
PWB (general health)		
Pre-assessment	5.65 ± 1.74[a]	5.52 ± 2.29 NS
Post-assessment	7.04 ± 1.28 NS	6.28 ± 1.77 NS
Follow-up	6.96 ± 1.73[a]	6.20 ± 2.02 NS

Significance is adjusted for multiple comparisons: Bonferroni

NS, not significant; *OST*, occupational stress; *PWB*, psychological well-being

[a] The mean difference is significant at the 0.05 level

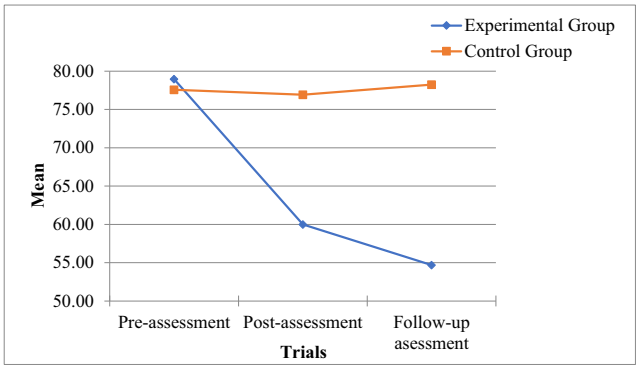

Fig. 3 Mean scores of overall occupational stress across trials by group assignment

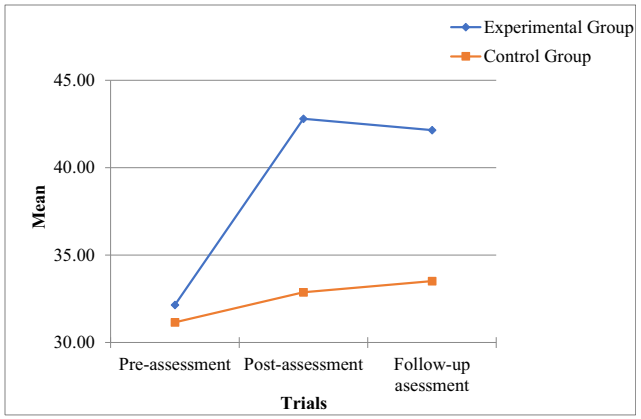

Fig. 5 Mean scores of job satisfaction across trials by group assignment

officers with low resilience. The results showed that the overall occupational stress and all its dimensions except operational hassles significantly decreased in the experimental group compared with the control group. The experience of operational hassles, arising out of duties such as dealing with abusive cases, handling riots, making forcible arrests, etc., depends on participant's exposure to such duties. This could explain probably explain the insignificant results. However, it should be noted that the change in operational hassles across the trials in the experimental group showed medium effect size, which was much higher when compared with that for the control group.

The findings clearly indicate the potential positive impact of resilience training in reducing the occupational stress among female police officers. This finding also has been substantiated by previous studies (Burton et al. 2010; Pipe et al. 2012; Sood et al. 2011; Steinhardt and Dolbier 2008; Xin et al. 2011a). Employees from Millear et al. (2008), displayed significant reductions in stress soon after the resilience intervention and at 6-month follow-up. The reduction in occupational stress and its various dimensions could have occurred probably due to change in their perception about stressors and may be due to changes in their individual responses towards various stressors (Lazarus and Folkman 1984; Ryff et al. 1998).

In the present study, the level of resilience of female police officers significantly improved immediately after the resilience training in the experimental group and these changes were sustained till the follow-up assessment. This clearly indicates the potential positive impact of resilience training in improving the resilience among female police officers. The current finding is supported by previous studies (Baum et al. 2009; Grant et al. 2009; Sherlock-Storey et al. 2013; Sood et al. 2011; Steinhardt and Dolbier 2008; Vetter et al. 2010). Hence, this research also contributed to the existing literature which has proven that resilience is amenable to change.

Similarly, the job satisfaction of female police officers significantly improved immediately after resilience training in the experimental group, and these changes were sustained till the follow-up assessment. This clearly indicates the potential positive impact of resilience training on the job satisfaction of female police officers. In line with the current findings, Waite and Richardson (2003) demonstrated significant increases in job satisfaction after resilience training among civil servants in Utah. Previous studies explained that the personality

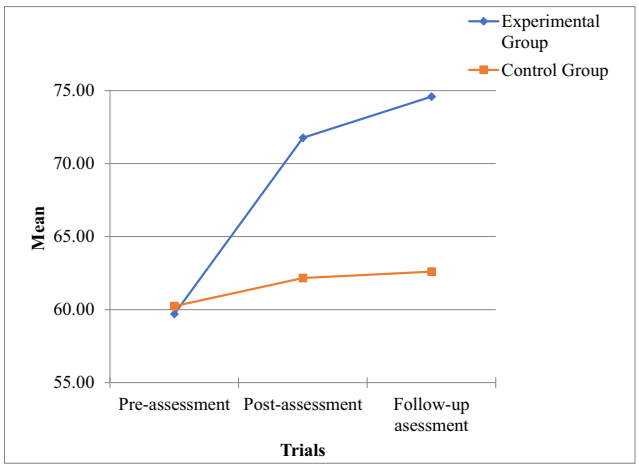

Fig. 4 Mean scores of resilience across trials by group assignment

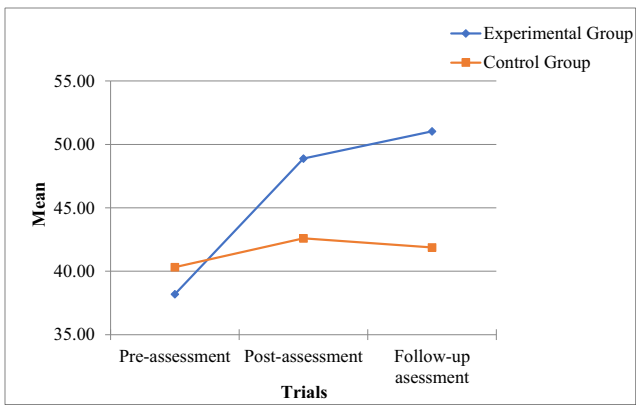

Fig. 6 Mean scores of overall psychological well-being across trials by group assignment

characteristics that make up psychological hardiness help to protect individuals when they are facing stressful situations and typically lead to a reduction in perceived stress and a less critical evaluation of one's personal satisfaction with a job (Berwick 1992; Rush et al. 1995).

Further, it was found that the overall psychological well-being and all its dimensions except general health significantly improved in the experimental group compared with the control group. The general health dimension of psychological well-being is characterized by negative affective state resulting from non-condition-specific subjective states. While, the improved psychological well-being may influence their physical health in the long run; the assessment was done within a short-time span of 2 months in the present study. However, the effect size for the change in the general health across trials in experimental group was medium and it was much higher when compared with the effect size for the control group.

The findings clearly indicate the potential positive impact of resilience training in improving the psychological well-being of female police officers. The current finding is supported by previous studies which have demonstrated that resilience training reduced anxiety (Sood et al. 2011; Pipe et al. 2012). Police officers from McCraty and Atkinson (2012) demonstrated significant reductions in depression, distress, and negative emotion and non-significant but moderate increases in vitality, after resilience intervention. Executives and senior managers from Grant et al. (2009) exhibited significant decreases in depression and significant increases in subjective well-being after resilience intervention. Xin et al.'s (2011a) study used similar components in their resilience training program and found that psychological resilience training was found to effectively enhance the warships soldier's resilience, reduce fatigue symptoms, improve their anti-stress ability, and level of mental health. The interpretation is consistent with Ryff and Singer's (2003) claim that resilient individuals are generally able to maintain their physical and psychological health and have the capacity to recover more quickly from stressful events.

The results of qualitative feedback given by participants in response to eight open-ended questions, collected during post-assessment period was overwhelmingly positive. Of the 26 feedback forms returned, all were judged to be very positive in their comments and very meaningful, pertaining to its use in their personal and work lives. The results of the focus-group discussion taken during follow-up period to examine the participants opinion on the perceived effectiveness of the training also yielded positive feedback. These written testimonials further substantiate the positive impact of the training program on occupational stress, resilience, job satisfaction, and psychological well-being among female police officers in the present study.

It could be concluded that resilience training is effective in reducing the overall occupational stress and the sources of stress such as external factors, hazards of occupation, physical working conditions, women-related stress, supervisory stress, and in reducing dimensions of psychological well-being such as anxiety and depression. In addition to this, it is also effective in improving resilience, job satisfaction, overall psychological well-being and its dimensions such as positive well-being, self-control, and vitality. In line with the protective model, the positive effects of resilience training could be attributed to improved protective factors which would have helped to weaken the effects of risks or enhance the positive effect of another promotive factor in producing an outcome. However, this change mechanism calls for further research inquiry.

The strength of the present study is its research design protocol which incorporated various measures to address possible bias in psychological researchers such as selection bias, performance bias, detection and attrition bias. Moreover, the resilience training program in the current study has taken an inclusive approach and has chosen modules based on well-researched theoretical as well as empirical knowledge. However, the findings of this study are limited to female police officers with low levels of resilience. It should be noted that the study did not include female police officers who reported physical illness and pregnancy, affecting the generalizability to these groups.

The outcomes of the study can include resilient qualities such as self-efficacy, humor, hope, optimism, gratitude, etc., and other variables like life and marital satisfaction, interpersonal relationship, emotional intelligence, to further examine efficacy and usefulness of resilience training. It is recommended to use large sample size to improve the statistical power in the study. Although, assessing participants 2 months after training, provides preliminary support for the effect of the training being maintained, future studies can consider even long-term assessments (i.e., 6 months, 1 year, and 2 years) to find out the efficacy and sustainability of resilience training. Future studies can examine the impact of increasing/decreasing the duration of the resilience training program, on various outcome variables. Objective observations of behavior, biological markers of stress such as electromyography (EMG), cortisol measures, and blood pressure, objective health outcomes such as verifiable illness, sick leave claimed can be used instead of self-report questionnaires for more objectivity in the further study.

This study clearly shows that, in police context, resilience training is useful to equip them with better coping skills and competency resources that would serve as a protective resource during stress, strain and adversity in their profession. However, it is also important to note that the development of internal resiliency factors will also depend on the external-related strengths that police experience in their daily routines. So, it is recommended that the police organization take initiatives to support and facilitate the development and maintenance of

Table 6 Evaluation of the resilience training program ($N = 26$)

Sl. No.	Items	M ± SD	Strongly agree	Agree
1.	I will be able to apply the knowledge learned	4.74 ± 0.45	20 (74)	7 (26)
2.	The training objectives for each topic were identified and followed	4.89 ± 0.32	24 (89)	3 (11)
3.	The content was organized and easy to follow	4.89 ± 0.32	24 (89)	3 (11)
4.	The materials distributed were pertinent and useful	4.96 ± 0.19	26 (96)	1 (4)
5.	The trainer was knowledgeable	5 ± 0	27 (100)	0
6.	The quality of instruction was good	4.93 ± 0.27	25 (93)	2 (7)
7.	Class participation and inter-action were encouraged	4.85 ± 0.36	23 (85)	4 (15)
8.	Adequate time was provided for questions and discussion	4.85 ± 0.36	23 (85)	4 (15)

Note. The numbers in parentheses are in percentage

resilience in police officers. The outcome of this research will be of help to police administration and policy makers for initiating strategies to improve the well-being of police officers.

Appendix 1

Armed Reserve A unit of Tamil Nadu Police, which deals with major law and order duties. Female police officers in these units are generally kept in reserve to handle riots in times of emergency. They also look after escorting accused or under trials to the courts or to the lock-ups, guard duty in important places like banks, etc. The female police officers working in the armed reserve carry armed weapons during riots. They are required to work 24/7-time schedule and work in shifts.

Sample Site The Chennai city in Tamil Nadu state, Southern part of India is divided into three zones namely, North, South, and Central Zone. Here, female police officers work in various units like AR, All Women Police Stations (AWPS), Local Police Stations (LPS), and in Battalions. The ratio of female and male in police is 1:11 in this city. Constables are at the last in the organization structure of Chennai police, with Commissioner of Police (COP) at the top, followed by Joint Commissioner of Police (JCP), Deputy Commissioner of Police (DC), Assistant Commissioner of Police (AC), inspector, Sub-Inspector (SI) and head constables. According to the handbook on police department, as of July 2012, the total number of female police officers employed in the constable rank is nearly four times higher than those employed in all other ranks.

Occupational Stress Occupational stress is defined as degree of unpleasant feelings and emotions experienced by policewomen when they are exposed to various stressors in their occupation (Karunanidhi and Chitra 2014a, p. 191). The definitions of the sub-dimensions of occupational stress are given below (Karunanidhi and Chitra 2014a, p. 197):

> Operational hassles: It is the stress experienced while carrying out everyday duty which includes, dealing with abusive cases, handling riots, making forcible arrests, etc.
> External factors: It is the stress arising out of external pressure other than police department such as public, politicians, judicial system, and media. It involves stress due to non-cooperation of public, interference from advocates, Government officials.
> Hazards of occupation: It is the stress experienced by women police due to the vulnerability attached with the nature of their job such as hectic work schedule, working during holidays, unpredictable work locations, hurried eating.
> Physical working condition: It is the stress experienced by women police due to certain aspects of their physical work environment such as poor infrastructure (lack of space), unhygienic working condition, inadequate manpower, poor basic facilities.
> Women-related stress: It is the stress experienced uniquely by women police because of their gender and the resulting poor status in the department. This involves performing duty during menstruation, facing negative attitude of co-workers and poor image of women in society.
> Supervisory stress: It is the stress experienced by women police due to the behavior of their immediate supervisors. This includes lack of recognition, ill-treatment, domination, and humiliation by supervisors.

Resilience Resilience is a multidimensional characteristic that embodies the personal qualities that enable one to thrive in the face of adversity (Connor and Davidson 2003).

Job Satisfaction A pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Locke 1976).

Psychological Well-being Self-reflective expressions on specific measures describing particular affective states (Dupuy 1984). The scale includes six dimensions: anxiety, depressed mood, positive well-being, self-control, general health, and vitality.

Resilience Training It is a program aimed to improve protective factors such as self-awareness, positive attitude towards self, job, and life, emotional management, and interpersonal skills in female police officers. This program is developed to help female police officers become resilient, to deal proactively with exposure to stress in their occupation, to improve job satisfaction and consequently their psychological well-being.

Appendix 2

- Two bilingual translators translated the original version of PGWBI and CD-RISC scale into Tamil independently.
- The researcher along with two bilingual translators compared the translated version item by item to agree upon a prefinal translated Tamil version of PGWBI and CD-RISC scale.
- Two bilingual experts back translated the tools into English to establish meaning equivalence.
- The prefinal translated Tamil version was tried on ten illiterate people aged 20 years and above and on ten female police officers to examine the comprehensibility of the translated version of PGWBI and CD-RISC scale.
- Few modifications were carried out to the original tools to suit the Indian population.
- The original English, the final Tamil version of the two tools, and back-translated English version of the final Tamil version of the same tools were referred to five bilingual psychologists to assess the equivalence of the translated version of the tools.
- The Tamil versions of the two tools were finalized after five experts from the field of psychology agreed that the tools had very high-balancing meaning and lingual equivalence. Thus, the content validity was established for the Tamil version of the two tools.
- Pilot study was carried out to establish reliability for the translated tools.
- The test-retest reliability value for the Tamil version of CD-RISC scale was 0.76 and the test-retest reliability value for the Tamil version of PGWBI ranged from 0.68 to 0.78.

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