

Anxiety and Depression among Officer Cadets during the Army Basic Training in the Sri Lankan Army

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Abstract

Depression and anxiety are common mental health conditions among the Army cadet officers that have been extensively studied in the world across varying populations. They are vulnerable enough to develop such conditions due to the military training process and adjustment issues. However, mental health conditions of the Army officer cadets have seldom been studied in Sri Lanka. The current study was conducted to examine the prevalence of depression and anxiety among Army officer cadets during basic army training and associated factors. A cross-sectional study was conducted among 236 officer cadets, ranging in age from 18 to 27 years who have had the training recently. A self-reported questionnaire which included the Depression, Anxiety and Stress Scale- 21 and General Health Questionnaire-30 was used to assess the prevalence of depression and anxiety. Prevalence of anxiety was 43% while the depression was reported 22% among the studied cadet officers. Findings suggest the

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(Received 03rd January 2024; Revised 20th December 2024; Accepted 25th December 2024, © OUSL)



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importance of providing mental health support for these individuals during basic army training. Implementing tailored mental health support programmes that provide accessible resources, counseling services, and coping mechanism training will help officer cadets improve their mental well-being.

Keywords: *Depression, anxiety, military life*

Introduction

Military training marks a critical juncture in an individual's life, encompassing transformative experiences and significant life outcomes (Martin et al., 2009). However, the military environment introduces a multitude of occupational stressors that can profoundly affect mental well-being of individuals, potentially leading to the development of anxiety and depression (Kumar et al., 2013). Research has highlighted a higher prevalence of anxiety and depression among military personnel when compared to the general population (Warner et al., 2007; Warner et al., 2007). These mental health challenges are influenced by various factors such as separation from loved ones, exposure to the hardships of war and the demanding nature of military life (Gaziano et al., 2016).

Military basic training, a transition period for officer cadets from civilian life to Army life, seems to be tough and stressful for them. Army recruits entering basic training are exposed to stress in the form of rigorous mental and physical training (Clemons, 1996; Skomorovsky & Sudom, 2011). New cadets to the Sri Lanka Army can benefit from the Army's initial entry training programme after finishing their basic training in the civilian sphere. Armed forces recruits undergo a rigorous physical and mental training from the beginning of their service environment (Gold & Friedman, 2000). Research conducted during basic training gives a unique look into how people think when they are ready to join a new group and how they handle stress (Larson et al., 2001).

Despite the growing body of literature on the mental health of military personnel, there remains a dearth of research specifically examining officer cadets during basic Army training in Sri Lanka. Limited

attention has been given to exploring the prevalence and impact of anxiety and depression in this population. Given that military training represents a unique and challenging period in an individual's life, understanding the mental health experiences of officer cadets during this crucial phase is of utmost importance.

By focusing on officer cadets undergoing basic Army training, this study aims to address this research gap and contributes to the understanding of anxiety and depression in military settings. Officer cadets encounter a distinct set of stressors during their training, which necessitates a dedicated examination of their mental health status. Gaining insights into the prevalence of anxiety and depression among officer cadets can inform the development of tailored interventions and support systems to foster their psychological well-being. Identifying the prevalence and correlates of anxiety and depression in this population can help military institutions create proactive strategies to support their mental health needs. By implementing effective interventions and support mechanisms, the Sri Lanka Army can enhance the resilience and overall well-being of officer cadets throughout their training and subsequent service.

Hence, this study aimed to examine the prevalence of anxiety and depression among officer cadets during basic Army training, their interrelationship, and the influence of factors like training duration and education level.

Review of Literature

The Sri Lanka Army basic training is a basic training experience that introduces troops to military life. Basic training for military cadets is intense and includes tough mental and physical exercises, which introduce stress. Complaints of mood problems are typical in the opening weeks due to these pressures. As a result, mood disorders are common among them during the first few weeks (Clemons, 1996; Larson et al., 2001; Lovering et al., 2013). Military personnel are more likely to suffer from a common mental condition (CMD) than the general population (Goodwin et al., 2015). Service members' mental health is influenced by a variety of factors, including combat and

deployment as well as military lifestyle stresses like relationship conflict, parental challenges, employment tensions and integration problems (Wilcox et al., 2013). The prevalence rate of mental illness among soldiers in the military is higher than the prevalence among the general population (Nazami et al., 2017; Rona et al., 2005). Particularly, anxiety and depression are commonly seen among army personnel (Kumar et al., 2013; Zubair, 2014; Larson et al., 2001).

Anxiety and depression

Anxiety is presently considered as a complex multidimensional construct embodying a series of interrelated cognitive, affective, somatic and behavioural reactions. Depression is a negative affective state, ranging from unhappiness and discontent to an extreme feeling of sadness, pessimism and despondency that interferes with daily life (American Psychological Association, 2020). It is characterized by a pervasive low mood, low self-esteem and loss of interest or pleasure in normally enjoyable activities which affects a person's family, school or work life and other social networks, sleeping and eating habits and general health (World Health Organization, 2001).

Stress associated with military training leads newcomers to fail in military training and being discharged from the service because of psychological difficulties. The military environment, especially strenuous military training, may also be characterized by a high prevalence of depressive symptoms (Xiong et al., 2005). Depression and anxiety are associated with attrition during initial military training (Lerew et al., 1999). In addition, stressful life experience may play a role in the occurrence leading to increase of suicide among soldiers, given the severity stressful experiences associated with military training (Nock et al., 2013). Depression seems to be related to verbal abuse, duration of the training, marriage, education level, worrying about the future, inadequate social support, gender, family history of mental illness and family history of alcohol abuse (Al-Amri & Al-Amri, 2013; Warner et al., 2007; Zubair, 2014).

Theoretical perspectives of anxiety and depression

According to Freud's Psychodynamic Theory, anxiety is an outcome of the ego's inability to mediate the conflict between the id and the superego (Freud, 1923). Individuals may experience aggressive and impulsive drives as unacceptable resulting in repression. These repressed drives may break through repression, producing automatic anxiety. Beck's Theory highlights the role of perceived vulnerability in anxiety disorders. Vulnerability is assumed to result in developing anxiety and depression, particularly in the context of high level of stressors (Schmidt et al., 1995).

Cognitive Theory describes anxiety as the tendency to overestimate the potential for danger. The tendency to overestimate the likelihood of a negative outcome is one of the hallmarks of anxiety. As a result, individuals who suffer from anxiety disorders have a strong preference to avoid engaging in situations or undertaking pursuits that they consider to be hazardous or unsettling for them (Ehring, 2014; Davis, & Valentiner, 2000; Wells, 1995).

Seligman (1973) considered depression as the "common cold" of mental health because of the high prevalence of it. According to Behavioural Theory, behaviour is acquired through observation, imitation and reinforcement. Therefore, depressed people learn to adapt in ways that reduce their chances of experiencing reinforcement and reward. Reactive depression has a clear cause; so, theories of behavioural/learning make sense (McLeod, 2015).

Physiological response to chronic stress may function as a vulnerability factor, linking environmental stress to the etiology of depression (Tonon et al., 2020). Coyne's Interpersonal Theory emphasized that interpersonal behaviours, in particular, reassurance seeking, play a role in developing depression. Reassurance seeking leads to severity and eventually, rejection by others, social isolation and subsequent depression (Joiner, 1994).

According to Beck (1967), depressed persons judged experiences negatively. He identified three depression pathways: Triad of cognition (of negative automatic thinking), negative self-schema and logic errors (*i.e.* faulty information processing). The cognitive triad is a series of

three negative (helpless and critical) beliefs about oneself, the world and one's future (Alloy et al., 1999). Depressed people often perceive themselves as helpless, useless and incompetent, and believe that they do not have hope for the future (Beck, 1967).

Mental wellbeing and military life

Due to its strict hierarchical organization, significant training requirements and sense of segregation, the military is a unique form of group. Armed forces are immediately confronted with a fresh set of challenges as soon as they depart their familiar social and physical environments. The stringent rules and hierarchical structure of this new environment necessitate a lifestyle shift from what one is used to in the civilian sector. People's personal freedom and job options are severely restricted while serving in the military (Al-Amri & Al-Amri, 2013). According to prior research, depressive disorders are a widespread problem among the military population. The percentage of soldiers with "depressed symptoms" was higher than the general population (Nasioudis et al., 2015).

Maintaining mental wellbeing is critical for military troops during their training period; however, poor mental health develops during training season owing to a variety of psychological disorders. Young people from lower socioeconomic origins are disproportionately represented in the armed forces. Thus, they may be vulnerable to psychological problems due to high levels of stress (Walker, 2010). There is a correlation between depression and stress levels throughout the basic training. Stress levels varied among basic trainees increasing after the first week. Mental health issues, like depression, afflict a larger percentage of military people (Rona et al., 2004).

Anxiety and depression among military personnel

The level of depression among entry-level male soldiers seems to be higher than the lifetime prevalence rate in the general population (Warner et al., 2007). There was a high prevalence of depression among military medicine cadets in Greece (Nasioudis et al., 2015). Also, rates of anxiety, depression and psychiatric illness among Iran soldiers were higher than the prevalence among youth and the general

population (Nazami et al., 2017). In South Asia, there is a high prevalence of depression among military recruits during the military training in the Pakistan Army (Bin Zubair et al., 2015) and anxiety was commonly seen among Indian Army soldiers (Kumar et al., 2013). In Sri Lanka, stress, adjustment disorder and adjustment reactions were the main psychological problems among army personnel (Perera et al., 2004).

Impact of anxiety and depression on military personnel life

As cadets transition from civilian to armed forces life, the Army's basic officer training appears to be a critical and stressful time for them. Training for Army soldiers in basic training includes both mental and physical stress (Clemons, 1996; Partonen, 1994; Skomorovsky & Sudom, 2011). As a result, during the first few weeks, they often complain of mood issues (Clemons, 1996; Larson et al., 2001; Lovering et al., 2013). Soldiers have a higher prevalence of mental health issues and are more likely to suffer from anxiety and depression than civilians (Kumar et al., 2013; Larson et al., 2001; Nazami et al., 2017; Rona et al., 2005; Zubair, 2014).

Military personnel who undertake physically taxing training, may be more susceptible to depressive symptoms (Xiong et al., 2005). Attrition, sorrow and anxiety are linked in basic military training (Lerew et al., 1999). Military training and soldiers' prior life experiences may contribute to an increase in suicide rates (Nock et al., 2013). Most military professionals with psychological problems do not get help as they are afraid to ask for help (Sharp et al., 2015). Due to mental health concerns, many enlistees in the military forces are leaving (Cigrang et al., 1998; Hoge et al., 2002; Larson et al., 2001).

Associated factors of anxiety and depression among military personnel

Characteristics of military environment such as austere discipline, rigid hierarchical structure, physical training, strict rules and separation from family and isolation from the familiar civilian setting from long periods of time are associated with depressive symptoms (Tonon et al., 2020). Moreover, history of previous psychiatric treatment and verbal or physical abuse were associated with

depression among soldiers (Warner et al., 2007). There was a link between depression and military service length, smoking and factors such as post-traumatic stress disorder and lack of close social support (Vilhjalmsson, 1993; Xiong et al., 2005).

Depression is more common among married military people and those who have problems in their relationships with their superiors or family members (Al-Amri & Al-Amri, 2013). Family income and fear of the future were also associated with depression symptoms (Zubair, 2014). Considering anxiety, the duration of the recruit training is associated with anxiety (Martin et al., 2006). Women are more likely to suffer from anxiety than males (Bruce et al., 2005; McLean & Anderson, 2009). There was a link between anxiety and the level of education of Indian Army soldiers (Kumar et al., 2013). Limited research has examined the linked elements of psychological problems among Army personnel in Sri Lanka. Hence, this study intended to examine the prevalence of anxiety and depression among officer cadets during basic Army training in the Sri Lankan Army.

Methodology

Research design

A cross-sectional study design was employed to investigate the prevalence of anxiety and depression among officer cadets during basic Army training.

Participants

The study population consisted of officer cadets in a military academy in Sri Lanka. The study population consisted of 479 officer cadets from various intakes. To determine the appropriate sample size, the formula developed by Krejcie & Morgan (1970) was employed. This method is widely used for determining sample sizes in finite populations. Based on this formula, a minimum sample size of approximately 214 participants was required for the study. To ensure robust representation and account for potential non-responses, a final sample of 236 officer cadets was randomly selected. The age ranged from 18 to 27 years (*Mean age* = 22 yrs). There were 97% of

males and 3% of females and 99.6% of the sample was of Sinhalese. The majority (94%) had completed their education up to Advanced Level, and 6% of cadet officers possessed Higher National Diploma (HND) education. The sample was restricted to those who were students in the Sri Lanka Military Academy. The cadets who were diagnosed with mental illness and who cannot read and understand Sinhala Language were not included in the study.

Measures

Anxiety

Anxiety was measured using the Anxiety Subscale in the Sinhala version of the Depression, Anxiety and Stress scale-21 (DASS-21) (Aththidiye, 2012). The items were rated using a 4- point Likert- type scale (0 = *Never* to 3 = *Almost always*). In previous studies, internal consistency for the Anxiety Subscale was $\alpha = .76$ (Aththidiye, 2012). In the present study, internal consistency of the Anxiety Subscale of the original DASS 21 was $\alpha = .84$. In addition, the Sinhala version of the Anxiety Subscale in the General Health Questionnaire-30 was used to assess anxiety (GHQ-30) (Abeyseena et al., 2012). The items were rated using a 4- point Likert- type scale (1= *Never* to 4 = *Almost always*). The sensitivity of GHQ-30 was 67.5% (Abeyseena et al., 2012). In the current study, internal consistency for this scale was $\alpha = .71$.

Depression

Depressive symptoms were measured using the Sinhala version of the Depression Subscale in the Depression, Anxiety and Stress scale-21 (Aththidiye, 2012). The items were rated using a 4- point Likert scale (0= *Never* to 3= *Almost always*). In previous studies, internal consistency for the Depression Subscale was $\alpha = .83$ (Aththidiye, 2012). In the present study, internal consistency was $\alpha = .93$. In addition to the Depression Subscale, the Sinhala version of the depression items in the General Health Questionnaire -30 (Abeyseena et al., 2012) was used to assess depression. The items were rated using a 4- point Likert- type scale (1 = *Never* to 4 = *Almost always*). In this study, internal consistency for this scale was $\alpha = .77$.

The DASS-21 is designed to measure clinically significant emotional states (Lovibond & Lovibond, 1995). It contains seven items for each

of the subscales that measure depression, anxiety, and stress. The scores for the three subscales are calculated by summing up the scores for the relevant subscale and multiplying the result by two. The cut-off scores for the original version and the validated Sinhala version of DASS 21 (Aththidiye, 2012) are similar. The cut-off scores for the three subscales are presented in Table 1.

Table 1. *DASS 21 Severity Cut-off Scores*

Severity	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

In addition, a demographic questionnaire was used to collect data on the participants' gender, duration of the training, worrying about the future, family history of mental illness, family history of alcohol abuse and history of verbal abuse. To accommodate the language preferences of the participants, the questionnaires were provided in both Sinhala and English languages.

Procedure

Ethical clearance for the study was obtained from the Ethical Review Committee of the Faculty of Graduate Studies, University of Colombo (Reference No: ERC/FGS/2021/015). Prior to data collection, all participants provided informed written consent and an information sheet was distributed to them. Participants participated in this study

voluntarily. The researcher briefly explained the purpose of the study and provided necessary instructions prior to data collection. The confidentiality of the organization as well as the respondents were protected at all stages of the research.

Data analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). An assessment of the normality of the data was conducted using the Shapiro-Wilk test. The results indicated that the data were not normally distributed. Descriptive statistics were used to summarize and describe the results related to demographic factors and the prevalence of anxiety and depression among cadets. The symptoms of anxiety and depression were grouped into five groups: normal to extremely severe based on the recommended cut-off scores (Lovibond & Lovibond, 1995). As the data did not follow a normal distribution, Spearman's rank correlation was used to examine the relationship between the variables.

Results and Discussion

Socio-demographic characteristics

The sample included 236 officer cadets from the Military Academy, ranging in age from 18 to 27 years. The majority (97%) were males and 99.6% were Sinhalese. In addition, 94% of the sample completed their education up to Advanced Level, and 6% possessed Higher National Diploma (HND) education.

Prevalence of anxiety among officer cadets

Of the sample, 43% had anxiety. Among those with anxiety, 20% had moderate levels of anxiety symptoms and 8% had a mild level of anxiety. Further, 7% had a severe anxiety level while another 7% had an extremely severe anxiety level (Table 2).

Table 2. *Levels of Anxiety of Officer Cadets According to DASS-21*

Level of anxiety	Percentage (%)
Normal	57
Mild	8
moderate	20
Severe	7
Extremely severe	7

Prevalence of depression among office cadets

Of the sample, 22% of the participants had depression. Of them, 4% had a moderate level of depression and 18% had a mild level of depression (Table 3). Results suggested that none of the participants reported severe or extremely severe levels of depression.

Table 3. *Levels of Depression of Cadet officers According to DASS-21*

Level of depression	Percentage (%)
Normal	77
Mild	18
moderate	4

The relationship between anxiety and depression among officer cadets

Correlational analysis was conducted to examine the relationship between the variables. Results revealed that there was a positive linear relationship between depression and anxiety among them ($r=0.47$, $p < 0.001$).

Factors associated with anxiety and depression among the cadet officers

Results suggested that levels of anxiety and depression did not vary depending on the duration of training. Also, the level of anxiety did not vary depending on the level of education. However, there was a significant negative relationship between the level of depression and the level of education ($r = -.04$, $p < .05$).

The main purpose of the current study was to examine the prevalence of anxiety and depression among officer cadets during their basic army training in the Sri Lanka Army. The findings of the present study revealed that officer cadets in the Sri Lankan Army experience moderate levels of anxiety and depression during their basic training. These findings align with previous research highlighting the higher prevalence of anxiety and depression among military personnel compared to the general population (Zandi et al., 2011; Bryan & Heron, 2015; Hartley et al., 2013). The prevalence of anxiety symptoms among them was 43% of the sample. This rate was comparatively higher than those reported by several studies both in Asia and globally (Nazami et al., 2017; Zandi et al., 2011).

The military setting exhibits certain stereotypes of military traits as high internal locus of control and low emotional stability. Furthermore, the military needs a committed service member who is strongly attached to his or her military service and to his or her unit as an organization (Allen, 2003). For all this the military must have a high self-concept, because self-concept does not appear to be instinctive, but it is a social product developed through experience, it processes relatively boundless potential for development and actualization. Previous research shows that anxiety level directly influences the self-concept of army personnel (Kumar et al., 2013).

In the present study, the prevalence of depression was 28% of the sample. This rate was comparatively lower than those reported in previous studies conducted in Asian countries and European countries (Bin Zubair et al., 2015; Warner et al., 2007). However, these findings were similar to few studies in globally (Tekbaş et al., 2003; Hoge et al., 2004; Zandi et al., 2011). A possible reason for these findings could be that participants were in mid and later part of their training. Some studies have been conducted in first part of the military training (Hoge et al., 2004; Nazami et al., 2017). In addition, the environment may have contributed to the low levels of depression in the current study. Previous studies that found high prevalence of depression had been conducted in urban areas (Kessler et al., 2015; Nazami et al., 2017).

Additionally, the present study found a positive linear relationship between anxiety and depression. Previous studies have also revealed the relationship between anxiety and depression, (Kalin, 2020; Kessler et al., 2015; Beesdo et al., 2009). Anxiety and depressive disorders are among the most common psychiatric illnesses and they are highly comorbid with each other (Kalin, 2020). With respect to major depression, a worldwide survey reported that 45.7% of individuals with lifetime major depressive disorder had lifetime history of one or more anxiety disorders (Kessler et al., 2015). The present findings provide further evidence for the relationship between anxiety and depression.

The positive relationship between anxiety and depression suggests that a comprehensive approach is necessary to target both conditions simultaneously. Mental health support programmes and interventions tailored to the specific needs of officer cadets can contribute to improving their psychological well-being and resilience. Although no significant associations were found between anxiety and depression levels and the education level or training duration, it is important to consider other factors that may contribute to mental health outcomes among officer cadets. Future research could explore additional factors such as social support, coping strategies and the impact of specific training experiences on anxiety and depression symptoms.

The present study found a significant negative correlation between the level of depression and the level of education among cadet officers. This is consistent with previous research findings. Previous studies have suggested that individuals with higher levels of education are less likely to experience mental health problems (Mirowsky & Ross, 2003; Ross & Mirowsky, 2013). Higher levels of education provide individuals with better problem-solving skills and coping strategies, which help them to deal with stressors more effectively (Mirowsky & Ross, 2003). Therefore, it is important to provide educational opportunities for cadet officers to improve their problem-solving skills and coping strategies which help prevent psychological problems.

Conclusions and Recommendations

In conclusion, this study revealed the prevalence of anxiety and depression among officer cadets during basic army training. Findings of this study suggest the need for targeted mental health support during this critical period. The positive relationship between anxiety and depression underscores the importance of comprehensive interventions addressing both conditions simultaneously. Early detection and intervention through screening processes can identify at-risk cadets and provide timely support. Integrating resilience-building and stress management training into basic army training can equip cadets with effective coping strategies. Implementing tailored mental health support programmes that provide accessible resources, counseling services and coping mechanism training will be useful to enhance mental well-being of officer cadets.

Collaboration and open communication between military authorities, mental health professionals and officer cadets are essential to create a supportive environment that reduces stigma and encourages help-seeking. Further research is needed to explore additional factors influencing anxiety and depression among officer cadets. By implementing these recommendations, the Sri Lankan Army can prioritize the mental health of officer cadets ensuring their successful training completion and long-term well-being in their military careers.

Future research should consider exploring the underlying mechanisms that contribute to the development of anxiety and depression among cadet officers during basic army training. Studies

could explore factors such as social support, coping strategies, personality traits and pre-military mental health status that may influence the development of anxiety and depression among cadet officers.

Furthermore, future research can focus on exploring the effectiveness of interventions aimed at reducing anxiety and depression among cadet officers during basic army training. Interventions could include psychoeducation, cognitive-behavioural therapy, mindfulness-based interventions and physical exercise interventions. The effectiveness of these interventions could be evaluated using a randomized controlled trial design.

Overall, the present study provides important insights into the prevalence and predictors of anxiety and depression among cadet officers during basic army training in Sri Lanka. Nevertheless, further study is required to determine what factors contribute to the onset of mental health issues among cadet officers so that effective treatments may be created to lower the rates of anxiety and depression.

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