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Mental health, ethnicity and the UK armed forces: Historical lessons for research and policy

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ABSTRACT

Background: UK armed forces have recruited from other races and ethnicities at times of crisis. To meet diversity targets, they have also recruited indigenous groups of non-White British heritage. Considered at greater risk of mental health problems generally, these populations are likely to suffer more in combat and in transition to civilian life. Yet, there is little data on how they fare.

Methods: A scoping review was conducted of peer-reviewed studies of psychological illnesses suffered by racial and ethnic minority soldiers from World War One to the present, together with research at the National Archives, Wellcome Trust Archives and the Imperial War Museum for unpublished studies.

Results: British commanders and psychiatrists argued that 'martial races' were protected against post-traumatic illnesses because of an innate resilience related to a rural heritage. Consequently, low morale and breakdown were interpreted as malingering to avoid combat. Indian troops received lower levels of psychiatric care than provided for British soldiers delivered with limited cultural understanding. Inferior terms and conditions were offered to Indian soldiers with lesser opportunities for promotion. These practices, established in both World Wars, continued for Gurkha and Commonwealth soldiers recruited to meet manpower and diversity targets. Disproportionate complaints of discrimination may explain why ethnic minority status is a risk factor for mental illness.

Conclusion: Management patterns laid down during the Imperial era continue to influence current practice for ethnic minority service personnel. Yet, armed forces can play a positive role in fostering diversity and integration to provide protective factors against mental illness.

1. Introduction

At time of crisis, the British have a tradition of recruiting soldiers from other races and ethnicities. Although this was largely to address manpower needs, more recently it was also to meet shortfalls in diversity targets because UK minoritized populations have not enlisted at expected levels. At the time of Strategic Defence Review of 1998 racial and ethnic minority groups represented 6% of the British population but only accounted for 1% of service personnel (Dandeker and Mason, 2001). The legacy of Empire, when recruits from imperial territories had served in units led by British officers or been employed in low status roles, has deterred volunteers from UK racial minorities (Mason and Dandeker, 2009); a study of young British Punjabi Sikhs and Muslims

found that most did not identify with UK armed forces, many preferring careers based on educational attainment (Hussain and Ishaq, 2002). Despite recruitment initiatives, the proportion of regular service personnel from black, Asian and minority ethnic communities had only risen to 9.6% by April 2022, below the 14.3% minority ethnic population in the UK (Kirk-Wade, 2022).

Engaged on inferior terms and conditions than their UK born counterparts and with restricted opportunities for promotion, Gurkha and Commonwealth service personnel have fought lengthy campaigns for equal treatment (King, 2021). Evidence from other nations suggests that discrimination results in poorer mental health and wellbeing. Research conducted into high rates of mental illness suffered by African American soldiers during World War Two identified segregation and

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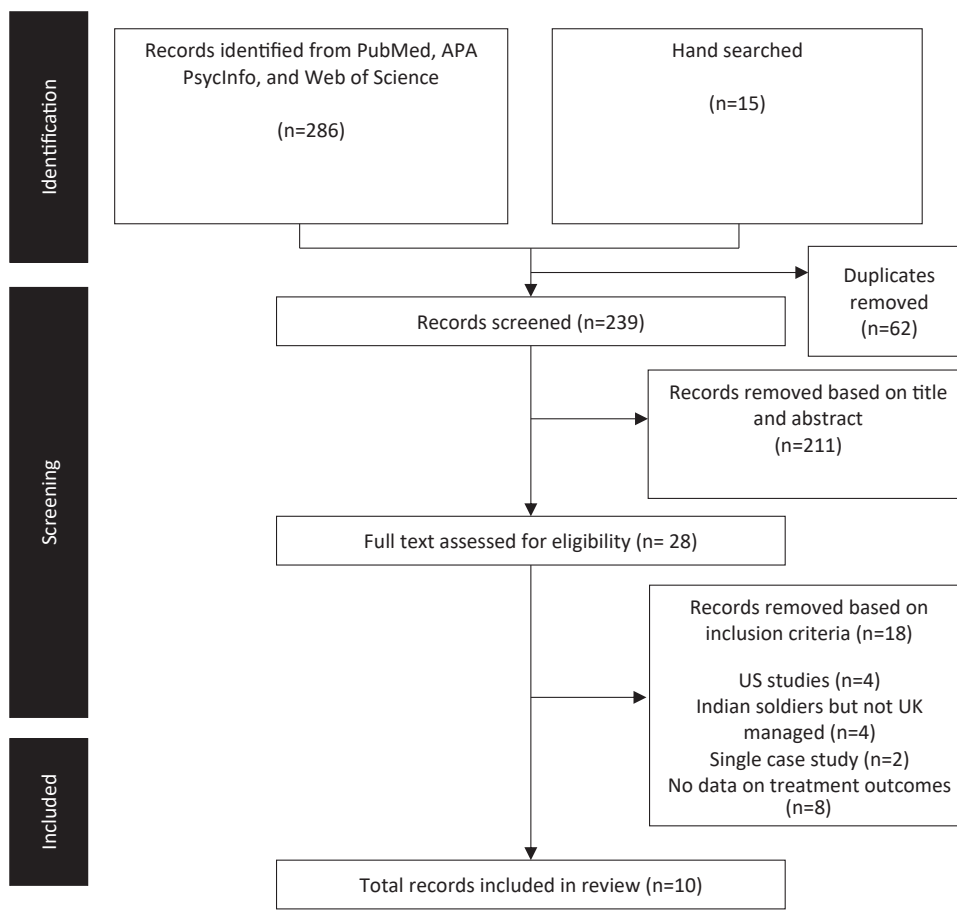
discrimination as causal factors (Dwyer, 2006; Stevens, 1947). A 1988 study of Vietnam veterans found that ‘non-white’ ethnicity, which included veterans of colour, Hispanics, American Indians, Asians, and Pacific Island Americans, was a significant risk factor for poor psychological health (Centers for Disease Control Vietnam Experience Study, 1988). A further investigation reported that PTSD rates of 27.9% for Hispanic veterans compared with 20.6% for veterans of colour and 13.7% for white veterans (Kulka et al., 1990). A follow-up study of 21, 772 US Army soldiers who had enlisted in 2011 found that the risk of attempted suicide was elevated in black service personnel but reduced for white non-Hispanics over the first 48-months of military service (Naifeh et al., 2022). Further research discovered that PTSD rates were elevated for Black and Hispanic veterans compared with their white counterparts in a nationally representative sample, largely explained by discriminatory stress and rumination (McClendon et al., 2019). By contrast, recent anti-discrimination initiatives for US armed forces have shown positive outcomes (Mark et al., 2018), including high black representation and re-enlistment rates (Armor and Gilroy, 2010). Although a systematic review reported that ethnic minority service personnel encountered greater levels of discrimination and poorer health, it also identified a paucity of research beyond the US (Salem et al., 2023). This paper explores psychological casualties through an historical focus on Indian troops because of the scale of their contribution to the British military effort in both World Wars and assesses how the recent management of Gurkha and Commonwealth service personnel may affect their mental health.

2. Methods

A scoping review was conducted in the databases PsycINFO, PubMed and Web of Science with the search terms ‘mental health’ AND ‘ethnicity’ AND ‘Indian Army’, ‘racial minority service personnel’ AND ‘mental health’, ‘Gurkha and Commonwealth service personnel’ AND ‘mental health’ (Paré et al., 2015). Our inclusion criteria were Indian, Gurkha and Commonwealth soldiers serving in the British armed forces with data on their mental health and treatment in peer-reviewed publications. We excluded Imperial troops from other territories and soldiers from the Commonwealth and Nepal who were not recruited under UK terms and conditions. The Indian Army, before independence, was included in the search because it played a significant role in defining the management of Imperial troops.

A total of 10 articles met our inclusion criteria and these were supplemented by grey literature (Table 1). We also examined unpublished records from the National Archives in London, Wellcome Trust Archives, British Library and the Imperial War Museum for policy documents, and reports of psychological illnesses experienced by Indian and Commonwealth soldiers. In areas of rapid advancement or complexity, where there is little literature, scoping reviews and the use of a wider range of sources can be powerful (Greenhalgh et al., 2005), not least because conventional search terms applied to specialist journals may yield few results. We propose that our methodological approach addresses gaps in the literature and search challenges to provide scaffolding for future scholarship, but also highlights an overlooked area of limited research.

Table 1
PRISMA diagram showing identified literature.



3. Results

The characteristics of studies that met our inclusion criteria are presented in [Table 2](#). They included Indian, Gurkha and Commonwealth service personnel contrasted with British soldiers and related to both World Wars, the Malaya campaign and recent operations in Iraq and Afghanistan.

3.1. Psychiatric casualties

A core reason for elevated rates of mental illness for ethnic minority troops is that they were often deployed as infantry in high-risk operations. During World War One, Indian troops had a higher proportion of soldiers killed than their British counterparts ([Table 3](#)), inevitably resulting in post-traumatic illnesses. The association between the killed and wounded rate and psychiatric casualties has been established across nations and different wars ([Beebe et al., 1958](#); [Jones et al., 2001](#)). In World War Two, the Indian 4th Division was repeatedly engaged in combat and in March 1942, having sustained high casualties, it was temporarily dismantled ([Raghavan, 2016](#)). The end of Empire saw British troops engaged in counter-insurgency operations and again the UK Government recruited from other races and ethnicities. Casualties against communist guerrillas in Malaya peaked in 1951 and it was estimated that 38% of the 40,000 troops deployed Gurkha and Malay regiments (Probert, 2021). Commonwealth forces suffered disproportionately, approximately half of the military mortality in 1949 and, if paramilitary police groups are included, represented 75% of all deaths in 1951 ([Forster, 1957](#); [Short, 1975](#)).

The deployment of Commonwealth troops in battle reflected ingrained racial attitudes. During the nineteenth century the British had recruited soldiers in India from ethnic groups whose inherent nature and rural heritage, they believed, made resilient warriors ([Rand and Wagner, 2012](#)). Whilst many of the ‘martial races’ were created, others such as the Sikhs were identified from those who fought effectively against the British (Ray, 2012). Often living in rural poverty, they were recruited by offers of status, pensions and land on discharge. By 1911, Sikhs accounted for 20% of the Indian Army but only 1% of the population ([Barkawi, 2017](#)). Assigned them military characteristics by commanders, psychiatrists linked these to mental states. Captain Williams described Punjabi Muslims as ‘very good’ soldiers but ‘prone to hysterias’; Sikhs were ‘temperamental, often being brave, intelligent... and prone to malingering’, while Gurkhas rarely suffered from battle

Table 2
Study characteristics.

	Soldiers and veterans	Design	Study focus	Findings
Bhattacharjya (1949)	Indian and British	Cross-sectional	Incidence of mental illness and admission rates to military psychiatric hospitals	British soldiers had significantly higher rates in 1944 and 1945
Davis (1949)	Indian	Cross-sectional	434 admissions to a military psychiatric hospital in 1945	391 discharged recovered
Greene (2016)	Commonwealth	Qualitative	39 foreign and Commonwealth soldiers in UK armed forces	Ethnic minority soldiers at risk of feelings of vulnerability, injustice, distrust and helplessness
Miller (1945)	Indian and British	Cross-sectional	Admissions to a forward psychiatric unit in March-April 1944 with details of treatment	50% of admissions returned-to-duty within one week
Pacheco (1948)	Indian	Cross-sectional	19 cases of functional symptoms following combat	Treatment details and persisting symptoms
Pearson et al. (2022)	Commonwealth	Qualitative	6 veterans interviewed with semi-structured questionnaire	Experienced difficulties seeking help and identified barriers to mental health services
Probert (2022)	Gurkha and Malay	Cross-sectional	Psychological casualties by diagnosis in Malayan counterinsurgency	Rates and treatment protocols
Sandes (1915)	Indian	Case studies	Functional rigidity, tenderness and loss of feeling to the spine following combat	Treatment and outcomes
Simkhada et al. (2021)	Gurkha	Mixed methods	126 Gurkha veterans within a sample of 210 Nepalese males	17% reported poor mental health. General difficulties accessing health and social care services.
Williams (1950)	Indian and British	Cross-sectional	389 Indian soldiers compared with 236 British from 26th Indian Division admitted to military hospitals following combat	Indian soldiers had significantly lower rates of anxiety than British but higher levels of functional illnesses

Table 3

British Imperial Casualties, August 1914 to December 1920.

Nationality of armed forces	Killed	Wounded	Killed as % of wounded
British	702,410	1662,625	42.2
Indian Army: British nationals	2393	2325	102.9
Indian Army: Indian nationals	62,056	65,209	92.8
Canadian	56,639	149,732	37.8
Australian	59,330	152,171	39.0
New Zealand	16,711	41,317	40.4
South African	7121	12,029	59.2

Source: [War Office \(1922\)](#). *Statistics of the Military Effort of the British Empire during the Great War 1914-1920*, London: HMSO, 237.

exhaustion because ‘their main interest is fighting’ ([Williams, 1946](#)). The recruitment of Indian psychiatrists during the 1940 s produced little change, Lt Colonel Bhattacharjya arguing that the martial races suffered fewer psychological casualties than troops from Southern India ([Bhattacharjya, 1949](#)). During both World Wars, these judgements informed combat roles. Indian troops often received less weaponry than equivalent British units in the belief that their natural hardiness would compensate for less artillery and armour ([Khan, 2015](#)).

3.2. Post-traumatic illnesses

Two studies showed that psychiatrists and commanders believed that Indian soldiers in contrast to British exhibited no apprehension before battle and rarely expressed fear during or after combat ([Pacheco, 1948](#); [Williams, 1950](#)). Williams offered a cultural explanation was offered for the difference: ‘military service in general, and battle in particular, were activities which the Indian soldier was expected to enjoy’. British psychiatrists argued that Indian troops typically expressed stress in somatic form rather than as psychological illness ([Williams, 1946](#); [Matas, 1945b](#)), whilst Major Abse, an army psychiatrist at the Indian Military Hospital in Delhi, argued that ‘hysteria’ was ‘second only to malaria in Bengal’ ([Abse, 1950, 2](#)). Brigadier James reported that soldiers with ‘excellent records’ of combat in North Africa experienced enduring pain from a healed wound, resulting in the need for a transfer home ([James, 1955](#)). In summer 1942, British commanders interpreted these somatic cases, together with a rising percentage of missing and surrendered, as low morale rather than post-traumatic illness ([Fennell, 2011](#)). Lt Colonel MacKeith calculated that if functional somatic illnesses were added to psychological cases, then breakdown rates for Indian troops exceeded those of the British. Yet he did not attribute this to the disproportionate

killed and wounded rates experienced by Indian troops but to 'a special form of stress in the form of letters home telling of famine and high prices' (MacKeith, 1944).

Two studies argued that diagnostic errors were made because British psychiatrists were largely unschooled in Indian culture and had limited language skills (Pacheco, 1948; Bhattacharjya, 1949). Not being able to communicate effectively or identify subtleties psychopathology, cases of battle exhaustion were overlooked in Indian soldiers. Major Pacheco, who had experience of Indian hospital care, reported differences in symptoms between British and Indian infantry subjected to artillery bombardment. Whilst conversion disorders, exhaustion and loss of interest were found equally in both groups, he found depression more common in Indian soldiers and British at greater risk of anxiety.

3.3. Self-harm and malingering

One study challenged the criticism that Indian troops in both World Wars self-harmed at higher rates than British troops to escape the battlefield (Williams, 1950). The charge was first made at Ypres in November 1914 where by May 1915 the Indian Corps had suffered 61% casualties (Morton-Jack, 2006). Reports of war weariness identified in letters home encouraged the belief that Indian troops were wounding themselves to escape combat (Greenhut, 1983). The accusation prompted an investigation of 1000 Indian casualties by Colonel Seton who found that there was no evidence to support the claim (Seton, 1915).

The self-harm accusation was repeated during World War Two of troops in Burma (Khan, 2022), prompted by 44 cases in a Hindu battalion compared with none in two British battalions in the same division (Williams, 1950). Yet reporting bias and context were not considered. In fact, 86% of troops in the division were Indian and the 44 soldiers had suffered exceptional stressors. Two years of mountain jungle warfare had seen the Hindu battalion split into isolated sub-groups with disengaged officers. Battle exhaustion was compounded by malaria and anaemia. The 44 cases were vegetarian and had not received protein substitutes to maintain healthy nutrition. On medical recommendation, the battalion was sent to recuperate in a hill station and when it returned to front line action, no further cases of self-harm arose. The cause was not an underlying racial vulnerability, but poor leadership and physical illness.

3.4. Standards of care

Three studies found that Indian troops received a lower standard of mental health care than was offered to their British counterparts (Sandes, 1915; Davis, 1949; Miller, 1945). Although Indian divisions suffered some of the highest casualties in World War One, no specialist provision was made in France for those suffering psychological trauma. From December 1916, forward psychiatric units were opened for British and Dominion soldiers, but no Indian troops were admitted, while only 20 beds were allocated for psychiatric casualties invalided to the UK. Many were treated in general medical wards where functional somatic symptoms were treated by electric shock (Sandes, 1915). Letters home were studied by the Indian Mails Censor Office to assess their psychology and combat motivation, a practice not adopted for British troops until 1918. Ethnicity was considered the key variable, rather than regiment or battlefield context (Khan, 2020). War weariness and trauma reported by the Indian 'martial races' was often interpreted as malingering to be addressed by discipline rather than treatment (Buxton, 2018).

In World War Two, one study showed that British troops were far more likely to be diagnosed with psychiatric illnesses and receive a hospital admission than Indian soldiers (Bhattacharjya, 1949). Indian psychiatric battle casualties rarely received the care given to British troops because contemporaries thought them protected against trauma (Matas, 1945a). Lt Colonel Davis, a psychiatrist born in India, observed that 'until the last two years of the war psychiatric casualties in the

Indian Army, although usually admitted to hospital, received exactly the same treatment as meted out to military prisoners' (Davis, 1949). Only 100 Indian soldiers were admitted to the forward psychiatric unit of the 26th Indian Division compared with 145 British soldiers even though they represented 80% of its strength (Williams, 1950). The ingrained belief that Indian troops were protected against trauma plausibly raised the threshold for referral. Discrimination was evident in the attention soldiers received once admitted. Captain Miller, the psychiatrist attached to the 20th Indian Division, 'made a point of seeing all British cases admitted to the field ambulance', leaving him unable 'to see all the Indian cases' (Miller, 1945). As Indian troops comprised 80% of the division's four infantry brigades, they were often denied specialist care.

By 1942 it had become apparent that psychiatric treatment for Indian soldiers was inadequate and that morale would suffer unless this was improved (Bennet, 1948). In 1939, the Indian Army had only four psychiatrists and there were no psychiatric wards in military hospitals (Prabhu, 2010). The recruitment of Indian doctors increased the number of military psychiatrists to 86 by 1945 (Anon, 1945), though stigma associated with the discipline and the low esteem in which army service was held limited applications (Harrison, 2004).

A total of 450 psychiatric beds for British troops were created in three base hospitals and 553 beds for Indian servicemen in five different hospitals to maintain segregation (Prabhu, 2010). In March 1945, an advanced psychiatric unit was opened in 92nd Indian General Hospital, Bengal, to treat cases of battle exhaustion with 60 beds for Indian soldiers and 56 beds for British in separate wards (Stungo, 1945). Whilst this gave the impression that Indian psychiatric casualties were treated equally with British, it did not reflect the fact that by 1945 70% of troops in the Fourteenth Army were Indian (Roy, 2010). Of the seven infantry divisions engaged in the Burma Campaign of 1944–45 five were Indian, one was British and one African.

3.5. Career progression and agency

A cap on career progression for ethnic minority soldiers was a cornerstone of British military policy during Empire. Regiments recruited from the 'martial races' could not be commanded by members of their own race who could rise no higher than major (Table 4). Limited promotion to colonel was granted during the interwar period and to acting brigadier in World War Two (Raghavan, 2016). In the post-war period, the British Government restricted the recruitment of ethnic minorities, no black or Asian men being commissioned into UK armed forces and only a few hundred served in the ranks (National Army Museum, 2021). When National Service ended in 1960, the Defence Committee decided that racial and ethnic minority recruits should not make up more than 2% of the strength of an army corps, fearing the formation of vocal sub-groups (Vinen, 2014).

One study of 11 UK-born minority ethnic soldiers found that organisational structures their limited career progression and satisfaction in the army, though they felt more able to influence the system than Commonwealth soldiers (Greene, 2016). An analysis of ranks conducted in 2018 showed that Commonwealth soldiers were less likely to be

Table 4
Command structure of British Imperial Armed Forces in November 1918.

Nationality	Officers	Other Ranks	Total
British	164,276 (4.6)	3399,190 (95.4)	3563,466 (100)
Indian	5184 (0.8)	648,853 (99.2)	654,021 (100)
Canadian, Australian, New Zealand and South African	23,184 (4.4)	502,576 (95.6)	525,760 (100)
African	2 (0.01)	19,738 (99.9)	19,740 (100)
Egyptian	217 (2.3)	9233 (97.7)	9450 (100)

Figures in brackets indicate percentages within nations.

Source: War Office (1922). *Statistics of the Military Effort of the British Empire during the Great War 1914-1920*, London: HMSO, 29

promoted than their British counterparts (Ministry of Defence, 2018). That discrimination experienced by racial and ethnic minority groups in UK armed forces contributes to adverse mental health was given credibility by a Defence Committee report in 2019 into complaints to the Service Ombudsman. It found that 13% were from ethnic minorities, though they represented only 7% of the armed forces. Of their complaints, 39% were of discrimination, harassment and bullying compared with 24% from white personnel (House of Commons Defence Select Committee, 2019). The Wigston Report, that followed these findings, noted the frequency of behaviours ‘perpetrated by a lack of understanding’ that constituted ‘microaggressions’ (King, 2021).

3.6. Terms of employment and pensions

In 1996, a report by the Office of Public Management revealed endemic racism in the UK armed forces, prompting the Ministry of Defence (MoD) to work with the Commission for Racial Equality on a five-year action plan for equality (King, 2021). To achieve parity with the indigenous population, the Strategic Defence Review of 1998 set the goal of increasing the representation of minoritized populations by 1% per annum (Dandeker and Mason, 2001). However, the deadline set for a representative population was not achieved.

To address the diversity shortfall, the MoD targeted Commonwealth nationals. A narrative of partnership attracted volunteers even though soldiers had to serve a minimum of four years before they could apply for the costly process to remain in the UK (Ware, 2012). Further, a Commonwealth soldier wounded and discharged before completing four years’ service could not work or claim benefits (Crawford, 2008), and was not entitled to compassionate leave when deployed to Afghanistan. Fijian nationals comprised the largest Commonwealth group within UK armed forces, many having committed to 22 years’ service to qualify for an army pension (Pearson and Caddick, 2018; May, 2014). Between 2005 and 2015, 15 Fijian soldiers applied for compensation for PTSD sustained in service and 10 received payment for a mental illness (Defence Statistics (Health), 2016).

3.7. The Gurkhas

With a reputation for professionalism and valour, the Gurkhas became part of the British Army in 1948, though their pay and pensions were tied to the lower rates of the Indian Army (MoD, 2018). The return of Hong Kong to China in July 1997 saw the brigade move to Britain and Gurkha veterans increasingly chose to live in the UK rather than Nepal. In 2003, seven Gurkha veterans lost a test case at the court of appeal arguing that their inferior terms and conditions amounted to discrimination (Thurley, 2021). In 2007, following a public campaign, the government transferred Gurkhas to the UK Armed Forces Pension Scheme (GOTT, 2007), but excluded those discharged before July 1997. In their battle for pension parity, the Gurkha veterans argued that they had been ‘subjected to financial, emotional and social torture for the last 200 years despite fighting for Britain so bravely and loyally’ (Ministry of Defence, 2018). The pre-1997 veterans continue to seek equality of treatment, whilst hunger strikes in 2013 and 2021 reflected their feelings of injustice (Thurley, 2021).

3.8. Veteran access to health and social care

Two studies of Commonwealth and Gurkha veterans identified difficulties accessing mental health and social care services (Pearson et al., 2022; Simkhada et al., 2021). Language barriers inhibited understanding of what was available, how it might be accessed and therapeutic interactions with health professionals. Feeling unheard, some reported that they were being treated differently when compared with UK veterans of the same rank. As a result, minority ethnic ex-service personnel suffering from mental illness were commonly discouraged from seeking help.

4. Discussion

4.1. Principal findings

The review gathered evidence about the mental health of Indian and Commonwealth soldiers across an extended period, revealing patterns of management and prejudice about the qualities of racial and ethnic minority service personnel. Evidence from the ten studies and supporting papers suggests that they were repeatedly denied the care and welfare packages offered to British troops. Secondly, cultural differences resulted in post-traumatic illnesses being overlooked or interpreted as low morale. As a result, British troops had significantly higher admission rates for mental illness than Indian soldiers, appearing to support the traditional notion of martial races protected against the stress of combat. Commonwealth and Gurkha veterans experienced barriers to care suggesting that much mental illness went unrecognised and untreated. That the patterns of discrimination were identified across different national groups and conflicts suggests that policy changes are required by armed forces to effect change.

4.2. Strengths and limitations

This multidisciplinary study has drawn on a wide range of sources, capturing evidence from archives, government reports, historical studies and peer-reviewed publications, with a perspective from World War One to the present. This was designed to offset the limited range of the existing literature in what is an overlooked topic. A limitation of the study is that the literature does not permit a statistical meta-analysis of the risk factors of poor mental health experienced by ethnic minority soldiers. Further study of individual service populations is required to identify the importance of particular factors.

4.3. Conclusion

Whilst racial and ethnic differences have often been exploited by leaders to motivate soldiers on the battlefield and in extreme cases led to atrocities, armed forces can play a positive role in fostering diversity and integration. The traditional emphasis on *esprit de corps* and the need to bond recruits into a homogeneous organisation through a soldier identity can address pre-enlistment prejudice. When faced with structural exclusion and discrimination, ethnic minorities are often forced to seek support in sub-groups, and whilst this may protect them during service it has implications for their mental health as veterans. Designed to provide a representative population, the recruitment of Gurkha, Commonwealth and foreign service personnel came with unforeseen psychological costs largely because of a culture and practices established during Empire. Although most pension issues have been addressed, discrimination continues in terms of promotion and access to citizenship. Yet there are also positive stories to tell of how soldiers from around the world benefitted and might continue to do so, if protections can be put in place, and form part of the recruitment process.

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CRedit authorship contribution statement

Bhui Kamaldeep: Conceptualization, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Palmer Laura:** Methodology, Writing – original draft. **Jones Edgar:** Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

The authors have no conflicts of interest to disclose.

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References

- Abse, D.W., 1950. *The Diagnosis of Hysteria*. Bristol: John Wright & Sons, p. 2.
- Anon, 1945. Minutes of the Second Meeting of advisors in psychiatry India Command held on 17 to 19 February 1945, 2 (Wellcome Trust Archives, GC/135/B1/111).
- Armor, D.J., Gilroy, C.L., 2010. Changing minority representation in the US military. *Armed Forces Soc.* 36 (2), 233–246.
- Barkawi, T., 2017. *Soldiers of Empire, Indian and British Armies in World War II*, 47–48. Cambridge University Press, Cambridge, p. 74.
- Beebe, G.W., Apple, J.W., 1958. Psychological breakdown in relation to stress and other factors. In *Variation in Psychological Tolerance to Ground Combat in World War II*, Final Report. National Academy of Sciences, Washington DC, pp. 88–131.
- Bennet, E.A., 1948. Psychiatry in India and Pakistan. *Ment. Health* 8, 2–5.
- Bhattacharjya, B., 1949. On the Wartime Incidence of Mental Diseases in the Indian Army. *Indian J. Psychiatry* 1 (2), 51–5, 54.
- Buxton, H., 2018. Imperial Amnesia: Race, Trauma and Indian Troops in the First World War. *Present* 241 (1), 221–258, 227–32.
- Centers for Disease Control Vietnam Experience Study, 1988. Health status of Vietnam veterans: I. Psychosocial characteristics. *JAMA* 259, 2701–2707; II. Physical Health, 2708–2714.
- Crawford, A., 2008. Commonwealth soldiers' homeless', BBC News, 26 September 2008. <http://news.bbc.co.uk/1/hi/uk/7638021.stm> (Accessed 23 August 2021).
- Dandeker, C., Mason, D., 2001. The British armed services and the participation of minority ethnic communities: from equal opportunities to diversity? *Sociol. Rev.* 49 (2), 219–235, 223–24.
- Davis, R.B., 1949. A study of war psychosis in troops on the Indian Army. *Indian J. Psychiatry* 1 (4), 160–181, 161.
- Defence Statistics (Health), Ministry of Defence, Letter, 2 March 2016. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/535297/Defence_Statistics_FOI_2016_01529__Number_of_Fijian_soldiers_serve_d_the_British_Army_received_compensation_scheme_payment_for_Post_Traumatic_Stress_Disorder_PTSD_.pdf (Accessed 30 October 2022).
- Dwyer, E., 2006. Psychiatry and race during World War II. *J. Hist. Med. Allied Sci.* 61 (2), 117–143.
- Fennell, J., 2011. *Combat and Morale in the North African Campaign: The Eighth Army and the path to El Alamein*. Cambridge: Cambridge University Press, 42, 209, 215.
- Forster, J.M., 1957. Comparative study of the emergencies in Malaya and Kenya (The National Archives, WO291/1670).
- GOTT, 2007, 2–3, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/470115/GOTT_Booklet_Retired_Gurkhas.pdf#page=26 (Accessed 18 July 2022).
- Greene, B., 2016. *The Experience of Foreign and Commonwealth Soldiers in The British Army: An Exploration and Methodological Commentary*, PhD thesis, London School of Economics, 86, 188–189.
- Greenhalgh, T., Peacock, R., 2005. Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *BMJ* 5 331 (7524), 1064–1065.
- Greenhut, J., 1983. The Imperial Reserve: The Indian Corps on the Western Front, 1914–15. *J. Imp. Commonw. Hist.* 12, 54–73, 63–4, 66–70.
- Harrison, M., 2004. *Medicine and Victory. British Military Medicine in the Second World War*, Oxford. Oxford University Press, pp. 190–191.
- House of Commons Defence Select Committee, 2019. *Fairness without Fear: The work of the Service Complaints Ombudsman [HC 1889]*, 18. <https://publications.parliament.uk/pa/cm201719/cmselect/cmdfence/1889/1889.pdf> (Accessed 26 July 2022).
- Hussain, A., Ishaq, M., 2002. British Pakistani Muslims' perceptions of the armed forces. *Armed Forces Soc.* 28 (4), 601–618.
- James, G.W.B., 1955. Narrative, resume, comments and conclusions concerning the Middle Eastern Force from September 1940 to July 1943 (typescript, November), 16, 147–148.
- Jones, E., Wessely, S., 2001. Psychiatric battle casualties: an intra- and inter-war comparison. *Br. J. Psychiatry* 178, 242–247.
- Khan, S., 2020. Medicine and the critique of war: military psychiatry, social classification and the malingering patient in colonial India. *Med. Hist.* 66 (1), 47–63, 49–51.
- Khan, Y., 2015. *The Raj at War. A People's History of India's Second World War*. Vintage, London, p. 21.
- King, A., 2021. Decolonising the British Army: a preliminary response. *Int. Aff.* 97 (2), 443–461, 446–47, 449.
- Kirk-Wade, E., 2022. *UK Defence Personnel Statistics*. London: House of Commons Library, 15–16.
- Kulka, R.A., Schlenger, W.E., Fairbank, J.A., Hough, R.L. et al., 1990. Trauma and the Vietnam War generation: Report of findings from the National Vietnam Veterans Readjustment Study. New York: Brunner/Mazel.
- MacKeith, S., 1944. Psychiatric comments on some current issues affecting morale, 19 September 1944, 2–3 (Wellcome Trust Archives, GC/135/B1/1).
- Mark, K.M., Stevelink, S.A.M., Choi, J., et al., 2018. Post-traumatic growth in the military: a systematic review. *Occup. Environ. Med.* 75, 904–915.
- Mason, D., Dandeker, C., 2009. Evolving UK policy on diversity in the armed services: multiculturalism and its discontents. *Commonw. Comp. Polit.* 47 (4), 393–410.
- Matas, J., 1945b. Psychiatry Arakan campaigns, 11 (The National Archives, WO222/1571).
- Matas, J., 1945a. A note on psychiatry in Indian troops. *J. R. Army Med.* 84 (2), 69.
- May, S.J., 2014. *A Fighting People? Fijian Service in the British Army and the Production of Race and Nation*. University of Chicago, Chicago, pp. 232–240.
- McClendon, J., Perkins, D., Copeland, L.A., Finley, E.P., Vogta, D., 2019. Patterns and correlates of racial/ethnic disparities in posttraumatic stress disorder screening among recently separated veterans. *J. Anxiety Disord.* 68, 102145.
- Miller, J.W., 1945. Divisional psychiatry. *J. R. Army Med.* 84 (2), 67–68.
- Ministry of Defence, 2018. *Report of the Technical Committee on Gurkha Veterans*, March 2018, 3, 6–7. http://2ndgoorkhas.com/wp-content/uploads/2018/03/20180314-Final_Report_Gurkha_Technical_Committee_1a1.pdf (Accessed 18 July 2022).
- Morton-Jack, G., 2006. The Indian Army on the Western Front 1914–1915: a portrait of collaboration. *War. Hist.* 13 (3), 329–362, 347.
- Naifeh, J.A., Ursano, R.J., Stein, M.B., Herberman Mash, H.B., Aliaga, P.A., et al., 2022. Association of Premilitary Mental Health with Suicide Attempts during US Army Service. *JAMA Netw. Open* 5 (6), e2214771.
- National Army Museum, *What was National Service?* <https://www.nam.ac.uk/explore/what-was-national-service> (Accessed 23 August 2021).
- Pacheco, J.N., 1948. Battle Deafness in Indians. *Indian J. Neurol. Psychiatry* 1 (1), 18–25, 19.
- Paré, G., Trudel, M.-C., Jaana, M., et al., 2015. Synthesizing information systems knowledge: a typology of literature reviews. *Inf. Manag.* 52, 183–199.
- Pearson, C., Caddick, N., 2018. *Meeting the Needs of Commonwealth Personnel and Families: A Map of Service Provision*. Veterans and Families Institute. Anglia Ruskin University, p. 13.
- Pearson, E.J., Baumann, J., Murphy, D., 2022. Mental health treatment experiences of commonwealth veterans from diverse ethnic backgrounds who have served in the UK military. *BMJ Mil. Health* 168 (1), 20–24.
- Prabhu, H.R.A., 2010. Military psychiatry in India. *Indian J. Psychiatry* 52, S314–S316.
- Probert, T., 2022. Psychiatric casualties and the British counterinsurgency in Malaya. *Small Wars. Insur* 33 (3), 528–548.
- Raghavan, S., 2016. India's War, The Making of Modern South. In: *Asia 1939–1945*, 64–65. Penguin, London, p. 74.
- Rand, G., Wagner, K.A., 2012. Recruiting the 'martial races': identities and military service in colonial India. *Patterns Prejud.* 46 (3–4), 232–254, 233–34.
- Roy, K., 2010. Expansion and deployment of the Indian Army during World War II. *J. Soc. Army Hist. Res.* 88 (248–268), 263.
- Salem, K., Randles, R., Sapre, B., Finnegan, A., 2023. Experiences of ethnic minority personnel in the armed forces: a systematic review. *J. Mil. Veteran Fam. Health* 9 (1), 5–14.
- Sandes, J.D., 1915. 'Trench back' treated by sodium ionization. *Br. Med. J.* 2 (2849), 215–216.
- Seton, B., 1915. *An Analysis of 1 000 Wounds and Injuries Received in Action, with Special Reference to the Theory of the Prevalence of Self-Infliction*, Brighton: War Office, 7–8. British Library, IOR/L/MIL/17/5/2402. <https://www.bl.uk/collection-items/analysis-of-1000-wounds-injuries-received-in-action>.
- Short, A., 1975. *The Communist Insurrection in Malaya, 1948–1960*, London: Frederick Muller, Appendix.
- Simkhada, B., Sah, R.K., Mercel-Sanca, A., van Teilingen, E., et al., 2021. Perceptions and experiences of health and social care utilisation of the UK-Nepali population. *J. Immigr. Minor. Health* 23, 298–307.
- Stevens, R., 1947. Racial Aspects of Emotional Problems of Negro Soldiers. *Am. J. Psychiatry* 103, 493–498, 494, 498.
- Stungo, E., 1945. Advanced base psychiatric treatment centre at 92 Indian General Hospital, 7 May 1945 (The National Archives, WO222/1460).
- Thurley, D., 2021. *The campaign for Gurkha pensions*. London: House of Commons Library, 4, 5–6, 9.
- Vinen, R., 2014. *National Service, Conscription in Britain 1945–1963*. London: Allen Lane, 112.
- War Office, 1922. *Statistics of the Military Effort of the British Empire during the Great War, 1914–1920*. London: HMSO, 17, 22.
- Ware, V., 2012. *Military Migrants: Fighting for YOUR Country*. Basingstoke: Palgrave Macmillan, 212, 220.
- Williams, A.H., 1946. Prophylactic selection of Indian troops. *J. R. Army Med.* 87 (1), 1–9, 8–9.
- Williams, A.H., 1950. A psychiatric study of Indian soldiers in the Arakan. *Br. J. Med. Psychol.* 23 (3–4), 130–181, 144, Table 6.