The health and well-being of LGBTQ serving and ex-serving personnel: a narrative review

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The health and well-being of LGBTQ serving and ex-serving personnel: a narrative review

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ABSTRACT
The relaxation of discriminatory policies against lesbian, gay, bisexual, transgender, and queer (LGBTQ) service personnel has led to increased diversity among military populations. Given this increase, it is important to assess sexual and gender minority groups’ health and well-being in the context of military service. This narrative review assessed these outcomes in LGBTQ military personnel. The electronic databases OVID Medline, PsycINFO, and Embase were searched for papers published between January 2000 and July 2018. Thirty papers were included. In line with life course model, studies aligned with four themes: (1) mental health and well-being; (2) stigma and healthcare utilization; (3) sexual trauma; and (4) physical health. These themes highlighted that LGBTQ military personnel and veterans have poorer mental health and well-being; report more stigma and barriers to mental healthcare, which reduces uptake of accessed healthcare services; experience more sexual trauma; and have poorer physical health than heterosexual military personnel and veterans. However, there are substantial gaps in the current evidence for this population. Future research should aim to address limitations of the literature, and to ensure that data on LGBTQ personnel and veterans is collected as standard.

ARTICLE HISTORY
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KEYWORDS
LGBTQ; military personnel; review; veterans; well-being

Introduction
Historically, there has been an absence of research amongst global militaries on the health and well-being of lesbian, gay, bisexual, transgender, and queer individuals (LGBTQ) (Goldbach & Castro, 2016; Scott, Lasiuk, & Norris, 2016). In some countries, conservative military policies have meant that identification of LGBTQ status, or homosexual behaviour, was grounds for dismissal, limiting research on these groups (Kauth, Barrera, & Latini, 2018). For example, in Canada and the UK, it was not until 1992 and 2000, respectively, that lesbian, gay, bisexual, and transgender (LGBT) members were allowed to serve openly. Since then, Western militaries have gradually adopted far more inclusive policies, often based on tenants of human rights (Polchar, Sweijns, Marten, & Galdiga, 2014), or under the requirements of equality legislation. Increasingly, these policies have been framed in relation to the proposed benefits of diversity and inclusion for organizational development.

One recent example of a more inclusive policy was the repeal of the US’s ‘Don’t Ask, Don’t Tell and Don’t Pursue’ (DADT) policy in 2011. This change ensured that lesbian, gay, and bisexual (LGB) service members could disclose their sexual orientation without official risk of dismissal (Goldbach & Castro, 2016). Similarly, the UK Ministry of Defence’s (MoD) ‘A Force for Inclusion’ strategy was recently introduced, which couches LGBT diversity in its broader aims for operational effectiveness and UK equalities legislation (Ministry of Defence, 2018). The current status of transgender individuals in the US armed forces remains contested (Trump v Karnoski, 2019; Liptak, 2019). To date, there remain approximately 20 countries that openly exclude or discriminate against LGBTQ personnel, posing legal and personal threats.
to this group when serving on, or alongside, those armed forces (Polchar et al., 2014).

Given the increase in diversity and recruitment policies directly targeting this population, it is important to assess LGBTQ groups’ health and well-being in the context of their occupational health in military service. General population research suggests LGBTQ groups have a higher risk of physical and mental ill health compared to heterosexual or cisgender individuals (Cochran, Björkenstam, & Mays, 2016; Elliott et al., 2015; Roberts, Austin, Corliss, Vandermorris, & Koenen, 2010). Similar health inequalities may be experienced by LGBTQ personnel who serve in the military, and there may be additional factors that increase negative health outcomes in this particular population. As well as high occupational stress potentially resulting in mental health risks (Pflanz & Sonnek, 2002; Stevelink et al., 2018; Thomas, Harpaz-Rotem, Tsai, Southwick, & Pietrzak, 2017), there are possible negative effects from LGBTQ groups’ ‘minority stress’ experiences (Meyer, 2003). Minority stress theory explains that the higher prevalence of mental health disorders among sexual minorities is related to the stigmatized status of LGBT identity. For LGBTQ groups in the military, these stressors could include bullying, sexual assault, harassment, and continued historical or current effects of structural and cultural discrimination (Burks, 2011; Lucas, Goldbach, Mamey, Kintzle, & Castro, 2018). Such experiences may lead to poorer health outcomes, with LGB veterans more likely to screen positive for posttraumatic stress disorder (PTSD), depression, and alcohol misuse compared to non-LGB veterans (Cochran, Balsam, Flentje, Malte, & Simpson, 2013).

This narrative review aims to summarize current research that examines the health and well-being of LGBTQ individuals who currently serve, or who have served, in the armed forces. We are not aware of any previous narrative reviews that collate and analyse this research area across international literature. The review will analyse our current understanding of the health and well-being of LGBTQ military personnel, to identify gaps in the field, and to suggest areas for future work and development. We base our conceptual understanding of health and well-being on the life course model proposed by Segal, Lane, and Fisher (2015). In this model, the well-being of service members and their families is the central focus, and is comprised of several components, including physical health, psychological health, financial well-being, military factors, family factors, and other outcomes (including spiritual and recreational elements).

Methods

Electronic databases, including Embase, Ovid MEDLINE, and PsycINFO, were searched to identify relevant papers. Papers were restricted to those published in English between January 2000 and July 2018, to ensure inclusion of the start of the conflicts in Iraq and Afghanistan, as well as major societal and policy changes relating to the LGBTQ community, such as the redaction of the DADT policy within the US military, and increasingly open attitudes to LGBT communities (Goldbach & Castro, 2016). A combination of key words was used, including gay, lesbian, bisexual, transgender, LGBT, homosexual, genderqueer, sexual minorities, transsexual, genderfluid, gender dysphoria, gender identity, or sexual orientation; and military, veteran, armed forces, serving personnel, soldier, army, navy, air force, royal marine, or National Guard. Reference lists from key papers were checked to identify other relevant papers.

Papers were eligible for inclusion if they reported on original research focusing specifically on the mental or physical health, well-being, or healthcare utilization of LGBTQ serving or ex-serving personnel, irrespective of engagement status (e.g. regulars, reserves, or National Guard). Papers were excluded if they: (1) reported on perspectives from others, such as healthcare professionals or policy-makers, about LGBTQ experiences; (2) reported on attitudes about LGBTQ personnel; or (3) were books, case studies, conference proceedings, editorials, commentaries, or PhD dissertations. Where relevant, the findings are discussed in relation to the particular target sub-population studied—for example, still serving, National Guard, or reserve forces personnel.

Results

Paper overview

Thirty papers met inclusion criteria (Table 1). Twenty-seven were based on US data, and the remainder were conducted in Canada (2), and Switzerland (1). The papers covered a heterogeneous population of serving and ex-serving LGBTQ personnel. Eleven focused on transgender individuals, six on LGB individuals, and the remainder on a mixture of minority groups. Twenty-three papers employed quantitative study designs, while four were qualitative, and three used a mixed methods approach. Sample
Table 1. Summary information for all included studies.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Country</th>
<th>Method</th>
<th>Sample size</th>
<th>Main objective</th>
<th>Theme(s) (as per Segal)</th>
<th>Main results</th>
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<tbody>
<tr>
<td>Beckman et al. (2018)</td>
<td>US</td>
<td>Quantitative</td>
<td>221</td>
<td>To identify prevalence of military sexual assault, and to assess its association with demographic characteristics, past history of sexual victimization, and stigma-related factors amongst trans-gender veterans.</td>
<td>Mental health and well-being; sexual trauma</td>
<td>17.2% of respondents reported military sexual assault. Compared with participants without a history of military sexual assault, transgender veterans who experienced assault were more likely to report a history of assault as an adult prior to entering the military.</td>
</tr>
<tr>
<td>Biddix et al. (2013)</td>
<td>US</td>
<td>Quantitative</td>
<td>30</td>
<td>To examine the attitudes and comfort levels of active duty GB males approaching military healthcare professionals about sexuality or sexual health concerns. Also, to determine barriers those service members may encounter seeking healthcare in the aftermath repeal of the DADT policy.</td>
<td>Stigma and health-care utilization</td>
<td>There was a strong correlation between service members’ comfort disclosing their sexual orientation to military healthcare professionals, and their perception of how the military cares about them as a sexual minority. Only 70% felt comfortable, even though 100% knew it could not be used against them. When asked about repeal of the DADT policy, 70% agreed with the policy, and 23% were undecided.</td>
</tr>
<tr>
<td>Blosnich et al. (2013)</td>
<td>US</td>
<td>Quantitative</td>
<td>56929</td>
<td>To compare demographic and health information from sexual minority women veterans with sexual minority women non-veterans, and heterosexual women veterans.</td>
<td>Mental health and well-being; physical health</td>
<td>Significantly more sexual minority women veterans indicated frequent mental distress, low satisfaction with life, and sleep problems than either sexual minority non-veterans or heterosexual veterans. Sexual minority women veterans had nearly twice the prevalence of current smoking when compared with heterosexual veterans. More sexual minority women veterans reported activity limitations and poor physical health than the other groups of women. Compared with sexual minority women non-veterans, sexual minority women veterans had over a 2-fold increase in odds of frequent mental distress, sleep problems, current smoking, and poor physical health. Compared with their heterosexual veteran peers, sexual minority women veterans had over 3-times the odds of reporting frequent mental distress, and nearly 3-times the odds of reporting low satisfaction with life.</td>
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<tr>
<td>Blosnich et al. (2012)</td>
<td>US</td>
<td>Quantitative</td>
<td>1700</td>
<td>To investigate prevalence of sexual minority status among veterans in a representative state-wide sample, and compare mental health indicators and suicidal ideation by sexual minority status.</td>
<td>Mental health and well-being</td>
<td>Veteran status was proportionally higher among sexual minority women than heterosexual women. Sexual minority veterans had significantly less availability of social and emotional support, and higher prevalence of suicidal ideation. Sexual minority status was significantly associated with suicidal ideation.</td>
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<tr>
<td>Blosnich et al. (2014)</td>
<td>US</td>
<td>Quantitative</td>
<td>5117</td>
<td>To document all-cause and suicide mortality among VA users with an ICD-9 diagnosis consistent with transgender status.</td>
<td>Mental health and well-being</td>
<td>The crude suicide rate among veterans with transgender-related ICD-9 diagnoses was approximately 82/100,000 person-years, which approximated the suicide death rates for other serious mental illnesses in the VA (e.g., depression, and schizophrenia). The average age of suicide decedents was 49.4 years.</td>
</tr>
<tr>
<td>Blosnich et al. (2015)</td>
<td>US</td>
<td>Quantitative</td>
<td>48</td>
<td>To examine associations between self-identified LGBTQ and military experience with health indicators.</td>
<td>Mental health and well-being; physical health</td>
<td>LGBTQ individuals had increased risks of reporting a past-year suicide attempt, HIV, and discrimination than their non-LGBTQ peers. LGBTQ individuals with military experience had a 4-fold increased risk of reporting a past-year suicide attempt, after adjusting for age, sex, race, ethnicity, depression, and other psychiatric diagnoses.</td>
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<tr>
<td>Blosnich and Silenzio (2013)</td>
<td>US</td>
<td>Quantitative</td>
<td>11665</td>
<td>To provide preliminary information about LGB veteran health status, diagnoses and health screening behaviour compared with heterosexual veterans.</td>
<td>Physical health</td>
<td>More LGB than heterosexual veterans reported current smoking, not seeking medical care owing to cost, and activity limitations. Compared with heterosexual veterans, LGB veterans had greater odds of ever having an HIV test, but lower odds of a diabetes diagnosis.</td>
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<tr>
<td>Brown and Jones (2015)</td>
<td>US</td>
<td>Quantitative</td>
<td>18418</td>
<td>To investigate characteristics associated with justice involvement in a sample of veterans with transgender identification, and to determine whether health disparities exist when compared to non-transgender veterans with a justice involved history.</td>
<td>Mental health and well-being; sexual trauma; physical health</td>
<td>Transgender veterans were more likely to be justice involved than controls. Compared to non-transgender justice involved veterans, transgender justice involved veterans were more likely to have a history of homelessness, and to have reported sexual trauma while serving in the military. Significant health disparities were noted for transgender veterans for depression, hypertension, obesity, PTSD, serious mental illness, and suicidal ideation/attempts.</td>
</tr>
<tr>
<td>Brown and Jones (2016)</td>
<td>US</td>
<td>Quantitative</td>
<td>5135</td>
<td>To determine whether medical and/or mental health disparities exist in VA clinically diagnosed transgender veterans compared to matched transgender veterans without a clinical diagnosis.</td>
<td>Mental health and well-being; sexual trauma</td>
<td>Significant disparities were present in the transgender cohort for all 10 mental health conditions examined, including depression, suicidality, serious mental illnesses, and PTSD. Transgender veterans were more likely to have been homeless, to have reported sexual trauma.</td>
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Table 1. Continued.

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<thead>
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<tr>
<td>Chen et al. (2017)</td>
<td>US</td>
<td>Qualitative</td>
<td>201</td>
<td>To understand the challenges and strengths that transgender veterans experience related to the intersection of their gender identity and military connection, as well as to collect their advice for others in a similar situation.</td>
<td>Stigma and healthcare utilization</td>
<td>Transgender veterans reported challenges related to external and internal minority stress, such as living in a society with anti-transgender views, and isolating oneself due to fears of rejection. Transgender veterans described the challenges associated with correcting their military discharge paperwork to reflect their authentic gender, as well as barriers to the physical and mental health treatment they seek. Transgender veterans described the challenges associated with being part of a minority within a minority, such as lack of community connection to either the transgender or veteran community. Transgender veterans also described the personal sense of pride resulting from overcoming adversity, serving one’s country despite several barriers to doing so, living as one’s authentic self, and advocating for transgender acceptance. An equal number of veterans advised other transgender veterans to both avoid the VA and seek out help from the VA.</td>
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<tr>
<td>Cochran et al. (2013)</td>
<td>US</td>
<td>Quantitative</td>
<td>409</td>
<td>To determine if rates of depression, PTSD, and alcohol and other substance use varied between LGB and non-LGB veterans.</td>
<td>Mental health and well-being</td>
<td>Rates of PTSD, depression, and alcohol use were found to be elevated in LGB veterans compared to non-LGB veterans. Concealment of one’s LGB identity while in the military was associated with PTSD and depression among LGB veterans.</td>
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<tr>
<td>Delgado et al. (2016)</td>
<td>US</td>
<td>Quantitative</td>
<td>85</td>
<td>To determine if GB servicemen and veterans experience higher rates of discrimination and psychological stress than heterosexual servicemen and veterans.</td>
<td>Mental health and well-being</td>
<td>GB servicemen and veterans reported experiencing discrimination more frequently than heterosexual servicemen and veterans. The groups reported no significant differences in overall stress. Sexual minority veterans used tobacco, alcohol, and casual sex less frequently than their heterosexual counterparts.</td>
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<td>Reference</td>
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<td>Dietert et al. (2017)</td>
<td>US</td>
<td>Qualitative</td>
<td>22</td>
<td>To understand transgender veterans’ experiences of using the VA.</td>
<td>Stigma and healthcare utilization</td>
<td>Transgender veterans accessing VA services reported inadequate and inconsistent care. Some reported being disrespected by providers at the VA due to their gender identity, and some were unable to access needed services such as Sex Reassignment Surgery. Some transgender veterans avoided accessing services at the VA altogether, due to their belief that they lack ‘transfriendly’ doctors and staff.</td>
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<tr>
<td>Hill et al. (2016)</td>
<td>US</td>
<td>Quantitative</td>
<td>106</td>
<td>To investigate lifetime mental and physical health diagnoses, and transgender-related health.</td>
<td>Mental health and well-being: physical health</td>
<td>A greater percentage of veterans than service personnel reported depression and anxiety. 15.9% of veterans vs 1.8% of service personnel had been diagnosed with a substance abuse disorder. There were no differences in lifetime physical health disorders, and the most common problems were back and knee issues. Being diagnosed with a mental health problem correlated with being diagnosed with a physical health problem. There were no differences in transgender-related health—approximately half of service personnel and two-thirds of veterans were on hormone replacement therapy. 72.2% of service personnel reported being 'out' to family, but only 16.2% to in-unit friends. Only 37.8% of service personnel reported having moderate-to-strong levels of family support.</td>
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<tr>
<td>Hoy-Ellis et al. (2017)</td>
<td>US</td>
<td>Quantitative</td>
<td>183</td>
<td>To examine relationships between prior military service, identity stigma, depressive symptomatology, and psychological health-related quality-of-life among transgender older adults.</td>
<td>Mental health and well-being: stigma and healthcare utilization</td>
<td>Identity stigma was significantly related with higher levels of depression, and lower psychological health-related quality-of-life. A history of military service significantly predicted lower depressive symptomatology, and higher psychological health-related quality-of-life. Prior military service lessened the relationship between identity stigma and depressive symptomatology among transgender older adults.</td>
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<td>Kauth et al. (2018)</td>
<td>US</td>
<td>Quantitative</td>
<td>218</td>
<td>To explore characteristics, including mental health, substance use, identity, ‘outness’, functioning, and health literacy, of LGBT veterans who both use and do not use VA services.</td>
<td>Mental health and well-being; stigma and healthcare utilization</td>
<td>There were no differences on the health factors of depression, anxiety, or alcohol use among VA and non-VA users. LGT VA users were less public with their identity compared to non-users. LGT VA users used primary care (76.8%), and specialty medical services (51%) most frequently. Most VA users described their mental health and primary care providers as somewhat or very welcoming. Transgender men felt significantly less welcomed by VA providers than transgender women, gay men, or lesbian women. 58.7% of LGT VA users and 38.1% of transgender VA users had disclosed their sexual orientation.</td>
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<tr>
<td>Lehavot et al. (2014)</td>
<td>US</td>
<td>Quantitative</td>
<td>699</td>
<td>To examine the role of civilian and military traumas, and mental health symptoms in explaining sexual orientation disparities in alcohol misuse between sexual minority and heterosexual women veterans.</td>
<td>Mental health and well-being</td>
<td>LB women were more likely to report higher levels of childhood trauma, civilian and military victimization, depression, PTSD, and alcohol misuse compared to heterosexual women veterans. LB women’s higher rates of childhood trauma and adult civilian and military physical victimization contributed to greater alcohol misuse, through increased depressive and PTSD symptoms. Sexual orientation also had a significant direct effect on alcohol use.</td>
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<tr>
<td>Lehavot et al. (2017)</td>
<td>US</td>
<td>Quantitative</td>
<td>298</td>
<td>To evaluate sexual minority groups’ satisfaction with VA medical and mental healthcare, and the correlates of dissatisfaction. Also, to evaluate patient reported delays in seeking healthcare, including the correlates of delayed help-seeking.</td>
<td>Mental health and well-being; stigma and healthcare utilization</td>
<td>50% of transgender participants screened positive for depression, 41% for PTSD, and 13% for alcohol misuse. 22% reported poor health. 56% of the group reported use of VA healthcare services since discharge from the military, with 69% ever receiving mental health treatment. Most veterans were ‘out’ with their transgender status to at least one healthcare provider. 79% were satisfied with VA medical healthcare, and 69% with VA mental healthcare. 46% reported delaying medical care, and 38% delaying mental healthcare within the last 12 months. The most common</td>
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<td>Nusbaum et al. (2008)</td>
<td>US</td>
<td>Quantitative</td>
<td>1170</td>
<td>To compare the experiences of straight and homosexual women who receive healthcare in military medical facilities, specifically in terms of discussing sexual concerns with a physician.</td>
<td>Stigma and healthcare utilization; physical health</td>
<td>Lesbian participants were more likely to report being unable to properly discuss their sexual concerns because their physician did not understand the concern, did not spend enough time with them, seemed disinterested, or looked too old. Lesbian women were also more likely to report being abused at some point in their lives. However, there were no differences between lesbian and non-lesbian women in terms of the number who had discussed their sexual concerns, or in terms of how much the doctor had helped in the discussion. Participants reported being heavily surveyed by the military, who were attempting to identify homosexual service members. All actively hid their sexuality from those around them to avoid scrutiny, which severely affected their mental health. Participants also reported experiencing severe depression upon being ‘discovered’, and forced to leave the military. One participant attempted suicide twice after being discharged.</td>
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<tr>
<td>Poulin et al. (2009)</td>
<td>Canada</td>
<td>Qualitative</td>
<td>13</td>
<td>To examine the experiences of lesbians who hid their sexuality during their military service, and investigate how these experiences affected their physical and mental wellbeing.</td>
<td>Mental health and well-being; stigma and healthcare utilization</td>
<td>All participants reported accessing healthcare services while identifying as transgender. Most experienced insensitivity or harassment from their physicians, some were also mis-gendered. Almost all participants reported that their physicians had little-to-no knowledge of transgender-related healthcare.</td>
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<tr>
<td>Rosentel et al. (2016)</td>
<td>US</td>
<td>Qualitative</td>
<td>11</td>
<td>To assess the experiences of transgender veterans accessing medical services for issues relating to their transition.</td>
<td>Mental health and wellbeing; stigma and healthcare utilization</td>
<td>All participants reported accessing healthcare services while identifying as transgender. Most experienced insensitivity or harassment from their physicians, some were also mis-gendered. Almost all participants reported that their physicians had little-to-no knowledge of transgender-related healthcare.</td>
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<tr>
<td>Scott et al. (2016)</td>
<td>Canada</td>
<td>Quantitative</td>
<td>8165</td>
<td>To determine whether the probability of experiencing a major depressive episode is higher for LGB service members compared to heterosexual service members.</td>
<td>Mental health and well-being</td>
<td>Homosexuals had the highest major depressive episode prevalence in the last 12 months (16.2%), and in their lifetime (29.7%). Gay men were significantly more likely to have had a major depressive episode in the past 12 months than heterosexual service members. Lesbians and bisexuals did not have significantly different risk for depression than did heterosexuals. Some participants were concerned that they would lose their healthcare and benefits if they disclosed their sexuality.</td>
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<tr>
<td>Sherman et al. (2014a)</td>
<td>US</td>
<td>Mixed methods</td>
<td>N/A</td>
<td>To examine the attitudes and practices of VA providers who treat LGBT veterans, and the experiences of LGBT veterans who receive healthcare from the VA.</td>
<td>Mental health and well-being; stigma and healthcare utilization</td>
<td>47% of the VA providers had received training in LGBT issues. Only one-third of both veterans and VA providers reported their VA hospital to be welcoming. LGBT veterans described feeling alone in the system, and having very negatives experiences, to the extent that they paid for their own healthcare rather than receive it from the VA. One transgender participant described the nurses they had encountered as extremely insensitive. Many compared their negative experiences in the VA with their negative experiences of being in the military as an LGBT person. One gay man described both the military and the VA hospital as having a witch-hunt atmosphere.</td>
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<tr>
<td>Sherman et al. (2014b)</td>
<td>US</td>
<td>Mixed methods</td>
<td>58</td>
<td>To investigate the experiences of LGBT veterans who engage with VA health services.</td>
<td>Mental health and well-being; stigma and healthcare utilization</td>
<td>Only 28% of the LGBT veterans described their VA hospital as welcoming. Most were also not asked about their sexual orientation. Some respondents expressed a desire for VA staff to ask about their gender identity, as LGBT people often have specific health needs. Others reported that they did not want providers to ask, as they believe this to be private information, and irrelevant for their general healthcare.</td>
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<td>Shipherd et al. (2012)</td>
<td>US</td>
<td>Quantitative</td>
<td>43</td>
<td>To investigate healthcare utilization and barriers to care for transgender veterans, and to identify the proportion of veterans in a community sample of transgender people.</td>
<td>Stigma and healthcare utilization</td>
<td>Approximately 3/10 transgender people reported to have served in the US military. Most visits were made outside the VA, for a range of physical health problems, including high cholesterol, high blood pressure, and vision issues. One in three transgender veterans who thought they were eligible for VA care had accessed services in the past 6 months. Higher barriers to care were reported for accessing VA medical services than VA mental health services. About 1/10 transgender veterans reported barriers, mainly relating to high costs, and knowing someone who had a bad treatment experience. Anticipated stigma was worse in relation to accessing medical services than mental health services run by the VA.</td>
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<td>Shipherd et al. (2018)</td>
<td>US</td>
<td>Quantitative</td>
<td>47</td>
<td>To understand of treatment seeking behaviour and treatment experiences among LGBT veterans who access PTSD treatment services and report that their traumatic event was related to their sexual orientation.</td>
<td>Stigma and healthcare utilization</td>
<td>About one in six LGBT veterans met the threshold for current PTSD, and the majority reported having received a clinical diagnosis of PTSD. 80% reported having sought treatment for PTSD, and most had received at least some form of treatment from the VA. Participants preferred to seek help from the VA, or a combination of VA and non-VA services. Satisfaction rates were higher among those who sought help solely via the VA than among those who sought help exclusively outside the VA. For those who did both, no satisfaction differences were found between VA or non-VA services.</td>
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<tr>
<td>Simpson et al. (2013)</td>
<td>US</td>
<td>Quantitative</td>
<td>356</td>
<td>To identify levels of healthcare utilization via the VA among LGB former members of the US military. Also, to explore predictors of utilization, and potential barriers to accessing this type of care.</td>
<td>Mental health and well-being; stigma and healthcare utilization</td>
<td>45.8% of participants had ever used VA services, and 29% accessed services in the past year. Higher utilization was found to be associated with positive service connection for a military related disability, PTSD, depression, and military interpersonal trauma related to respondents’ sexual orientation, amongst other factors. Significantly lower use was found among those who were investigated or punished about their sexual status in the military. About one in four...</td>
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<tr>
<td>Reference</td>
<td>Country</td>
<td>Method</td>
<td>Sample size</td>
<td>Main objective</td>
<td>Theme(s) (as per Segal)</td>
<td>Main results</td>
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<tr>
<td>Smith (2008)</td>
<td>US</td>
<td>Mixed methods</td>
<td>11</td>
<td>To report on the number of military personnel presenting to a gay men’s health clinic, that was not affiliated with the military.</td>
<td>Mental health and well-being; stigma and healthcare utilization; physical health</td>
<td>9% of all the gay clinic clients disclosed being active serving personnel. They presented with a variety of physical, sexual health, and mental health related symptoms. Personnel disclosed they attended this non-military affiliated clinic as they were afraid to access military healthcare services. Lack of confidentiality, stigma, and the fear of being discharged if their sexual orientation was found out were the main concerns.</td>
</tr>
<tr>
<td>Tucker et al. (2018)</td>
<td>US</td>
<td>Quantitative</td>
<td>201</td>
<td>To investigate levels of suicidal ideation in the past year, and examine how this is influenced by minority stress during and after military service. Specifically, external (discrimination), and internal minority stress (shame, inferiority) were explored.</td>
<td>Mental health and well-being</td>
<td>One in three LGBTQ individuals indicated suicidal ideation in the past 2 weeks, and over half in the past year. Positive associations were found between suicidal ideation and depression, as well as external and internal minority stress in general and when still serving in the military. External minority stress was found to be associated with higher prevalence of last year and past 2-week suicidal ideation, and this was moderated by internal minority stress. During their time in the military, personnel reported external minority stress, that impacted on internal minority stress, which then influenced suicidal ideation. However, the associations appeared to be slightly weaker than stresses outside the military context.</td>
</tr>
<tr>
<td>Wang et al. (2014)</td>
<td>Switzerland</td>
<td>Quantitative</td>
<td>5875</td>
<td>To investigate the prevalence of, and risk factors for, major depression, suicide attempt, and anti-social personality disorder by sexual orientation. Also, to assess the possible mediating effect of personality traits in self-identified GB serving personnel.</td>
<td>Mental health and well-being</td>
<td>Personnel with a preference for same sex partners reported poorer mental health, including overall mental health, and depression. However, this association weakened when adjusting for possible confounding variables, including personality traits. Associations differed depending on whether men indicated being attracted to men only, or both men and women.</td>
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sizes ranged from 11 participants to 56,929 participants, with a median of 218 participants.

The included papers aligned with four of the themes reflecting the conceptual understanding of health and well-being outlined by Segal et al. (2015): (1) mental health and well-being (23 papers); (2) stigma and healthcare utilization (15 papers); (3) sexual trauma (three papers); and (4) physical health (six papers). Papers could fit into more than one category.

**Mental health and well-being**

Of the 23 papers examining the mental health of LGBTQ former or current military personnel, most focused on transgender individuals, either solely, or combined with other LBGTQ groups. The papers examined three main areas: general mental health and well-being; suicide and suicidal ideation; and substance use.

**General mental health and well-being**

The available evidence suggests that general mental health and wellness is poorer among LBGTQ individuals compared to other groups. Lesbian and bisexual (LB) female veterans were significantly more likely to report frequent mental distress, low satisfaction with life, and sleep problems than either sexual minority non-veterans or heterosexual veterans (Blosnich, Foynes, & Shipherd, 2013). Similarly, transgender veterans were significantly more likely to report poorer mental health than serving personnel or non-transgender veterans (Brown & Jones, 2016; Hill, Bouris, Barnett, & Walker, 2016).

**Suicide and suicidal ideation**

Suicidal ideation has also been found to be higher among LBGTQ veterans. A series of papers by Blosnich and colleagues found a significantly higher prevalence of suicidal ideation among LGB veterans than heterosexual veterans (Blosnich, Bossarte, & Silenzio, 2012); a higher suicide rate among transgender veterans than non-transgender veterans (Blosnich, Brown, Wojcic, Jones, & Bossarte, 2014); and a 4-fold increased risk of reporting a suicide attempt in the past year among LGBTQ individuals with military experience than non-LGBTQ individuals with military experience (Blosnich, Gordon, & Fine, 2015). These findings may be related to the effect of potential stressors and stigma that some LGBTQ personnel experience, as recent discrimination related to transgender status is significantly associated with past suicidal ideation (Tucker et al., 2018). Personality traits may also play a role in mental health and suicidality (Wang et al., 2014).

**Substance use**

Research on substance abuse has tended to focus on LGB military personnel, with no studies on this outcome among transgender individuals. The relevant papers report significantly elevated rates of alcohol misuse among LGB veterans compared to non-LGB veterans (Cochran et al., 2013), with LB female veterans scoring higher on an alcohol misuse survey than heterosexual veterans (Lehavot & Simpson, 2013). Such outcomes have been associated with stigma and discrimination, with military physical victimization contributing to greater alcohol misuse, through coping with increased depressive, and PTSD symptoms (Lehavot, Browne, & Simpson, 2014). However, another study reported that gay and bisexual (GB) servicemen and veterans used tobacco and alcohol less frequently than their heterosexual counterparts, although they also reported experiencing discrimination more frequently (Delgado, Gordon, & Schnarrs, 2016). This suggests that the impact of stigma on substance abuse may vary depending on the degree of discrimination experienced, the sub-population being studied, or the presence of additional stressors or protective factors.

**Stigma and healthcare utilization**

The majority of papers discussing stigma and healthcare utilization among LGBTQ personnel and veterans reported that stigma or perceived barriers to care were common issues. Papers conducted before the repeal of the DADT policy indicated that perceived stigma can prevent LGBTQ personnel from both revealing their sexuality (Poulin, Gouliquer, & Moore, 2009), and accessing medical treatment provided by the military (Smith, 2008). Fear of stigma, attempting to avoid scrutiny, lack of confidentiality in military-provided services, and the possibility of being discharged from the military if their sexual orientation was discovered were the primary reasons cited (Poulin et al., 2009; Smith, 2008). More recent papers suggest that such difficulties may be evident among LGBTQ personnel today. Recent transgender veterans report multiple sources of stigma and stress, including living in a society with anti-transgender views, and not feeling able to reflect their authentic gender to others (Chen, Granato, Shipherd, Simpson, & Lehavot, 2017). Biddix, Fogel, and Black...
(2013) revealed a strong correlation between service members’ comfort levels in disclosing their sexual orientation, and their perception of how much the military cares about them as an individual (Biddix et al., 2013).

Reported prevalence rates regarding use of healthcare services ranged from 29% (Simpson, Balsam, Cochran, Lehavot, & Gold, 2013) to 100% (Rosentel, Hill, Lu, & Barnett, 2016). Both LGBT veterans and transgender personnel felt their mental and physical healthcare was inadequate, inconsistent, insensitive, and, often, disrespectful (Dietert, Dentice, & Keig, 2017). Some transgender individuals reported harassment upon seeking treatment (Rosentel et al., 2016), and 10% knew someone who had a distressing treatment incident previously (Shipherd, Mizock, Maguen, & Green, 2012). Transgender men, in particular, felt less welcomed by healthcare services than other gender minority or sexual minority groups (Kauth et al., 2018).

Such negative perceptions and experiences could reduce the uptake of healthcare by eligible veterans. Indeed, 25% of LBG veterans avoid healthcare services provided by the US Department of Veterans Affairs (VA) due to expected discrimination, with those who were investigated or punished about their sexual status in the military reporting lower use of mental health services (Simpson et al., 2013). The quality of services received may be reduced by perceived stigma. For example, Nusbaum, Frasier, Rojas, Trotter, and Tudor (2008) found that lesbian participants were less likely to feel they had properly discussed their sexual concerns with their healthcare provider after a physician visit.

In contrast, a number of studies found that most participants were satisfied with the healthcare they received (Lehavot, Katon, Simpson, & Shipherd, 2017; Shipherd, Ruben, Livingston, Curreri, & Skolnik, 2018). Increased healthcare utilization was associated with military-related disability, and symptoms of PTSD, depression, and sexual orientation related trauma (Simpson et al., 2013). Interestingly, there is also evidence to suggest that military service may be protective against the impact of perceived stigma on mental health and quality-of-life—with civilian transgender individuals reporting poorer mental health and lower quality-of-life than transgender veterans following discrimination (Hoy-Ellis et al., 2017).

**Physical health**

Papers focusing on physical health outcomes recruited across all sexual minority groups. They generally reported that LGBTQ personnel had poorer physical health outcomes than comparison sexual majority groups, in terms of higher levels of hypertension, and obesity (Brown & Jones, 2015); higher rates of the human immunodeficiency virus (HIV) (Blosnich et al., 2015); more problems with safe sex, and sexually transmitted diseases (Nusbaum et al., 2008); poorer functional impairment; and were more likely to be current smokers than heterosexual veterans (Blosnich et al., 2013). However, one study found improved physical health outcomes, with lower levels of diabetes for LGB veterans compared to heterosexual veterans (Blosnich & Silenzio, 2013).

**Discussion**

The aim of this review was to synthesize the literature on LGBTQ military individuals, such that future research, policy, and healthcare interventions may take note of core findings regarding this historically vulnerable group. The current research on LGBTQ mental health aligns with four themes in the life course model proposed by Segal et al. (2015): (1) mental health and well-being; (2) stigma and healthcare utilization; (3) sexual trauma; and (4) physical health.

**Sexual trauma**

Despite increased interest in military sexual trauma, there is a dearth of recent research in this area relating to LGBTQ personnel and veterans. The studies that have investigated this important topic have focused purely on transgender veterans, therefore we know little about military sexual trauma in other sexual minority groups. Two papers found that transgender veterans were more likely to report sexual trauma while on active duty than non-transgender veterans (23% vs 12%) (Brown & Jones, 2015, 2016), with transgender men reporting significantly higher rates than transgender women (30% vs 15%) (Beckman, Shipherd, Simpson, & Lehavot, 2018). Such experiences are linked to mental health, with those who have experienced sexual assault being more likely to suffer with poorer mental health (PTSD, and depression), and recent drug use compared to those who have not experienced assault (Beckman et al., 2018).

**Mental health and well-being**

This international review found higher rates of everyday discrimination, mental distress, depression, PTSD,
suicidal ideation, and death by suicide, and lower levels of social and emotional support, among LGBTQ military personnel compared to their non-LGBTQ counterparts (Blosnich & Silenzio, 2013; Blosnich et al., 2012, 2014; Cochran et al., 2013; Lehavot et al., 2014; Tucker et al., 2018). These results are in line with mental health outcomes found in meta-analyses of civilian LGBTQ populations (King et al., 2008; Plöderl & Tremblay, 2015).

Contrary to most literature on the topic, one Canadian study found no difference in recent depression between sexual minority and heterosexual service members (Scott et al., 2016); the authors note this positive finding may be because Canadian policy was amended to allow and protect open LGB service over two decades ago. Such a result may reflect a more supportive military environment with less stigma and discrimination, or improved access to social support or coping skills, known to buffer the relationship of stigma on mental health (Hatzenbuehler, 2009; Meyer, 2003). US studies that do show a difference in mental health by sexual orientation may highlight the fact that US policies allowing open LGB service are fairly recent, having come into effect in 2011. An additional finding from this review is that transgender veterans had better psychological functionality and lower depressive symptoms than civilian transgender individuals (Hoy-Ellis et al., 2017). It may be the case that transgender veterans benefit from protective factors and services provided for ex-military personnel, such as VA care, that transgender civilians are not able to access.

Consistent with Segal’s life course framework, disparities by gender and stage of life among sexual minorities may be present. GB servicemen have been found to be at lower risk for tobacco use and alcohol use than non-GB male peers (Delgado et al., 2016), while LB women veterans have been found to have a higher risk of tobacco, cannabis, and alcohol use than non-LB women peers (Blosnich et al., 2013; Browne, Dolan, Simpson, Fortney, & Lehavot, 2018; Lehavot et al., 2014). Research indicating that the military environment encourages ‘policing’ of gender presentation, rewarding hypermasculinity among both men and women, may help explain such gender disparities (Poulin, Gouliquer, & McCutcheon, 2018). Indeed, female veterans, regardless of sexual orientation, have been found to have higher levels of both tobacco use and mental health disorders than active duty, reserve, National Guard, and civilian women in the US (Lehavot, Hoerster, Nelson, Jakupcak, & Simpson, 2012). It is possible that sexual minority identity and being a woman in a male-dominated workplace intersect to create unique stressors, leading to the use of coping behaviours such as substance use after service.

The prevailing conceptual model explaining mental health disparities by sexual orientation situates gender as a possible moderator of the relationship between stressors and health (Meyer, 2003). Minority stress theory also recognizes sexual minority sub-groups as possible moderators impacting health; however, the articles reviewed here generally combine sexual minority sub-groups into a single LGB group. Significant mental health and life satisfaction disparities between bisexual compared to gay and lesbian individuals have been found among civilian populations (Plöderl & Tremblay, 2015; Wardecker, Matsick, Graham-Engeland, & Almeida, 2018). Furthermore, there is emerging evidence that bisexual veterans may experience higher rates of severe depression and PTSD than gay and lesbian veterans (McNamara, Lucas, Goldbach, Kintzle, & Castro, 2019). Future research should consider possible sub-group disparities among LGBTQ military personnel.

**Stigma and healthcare utilization**

Following the DADT policy repeal, VA medical services have taken steps to educate staff on culturally sensitive care of LGBTQ veterans, and have made concerted efforts to advertise that they ‘serve all who served’—including the LGBTQ community (Kauth et al., 2018). While rates of VA use among LGB veterans are about the same as among non-LGB veterans (Simpson et al., 2013), a minority of LGBT veterans report that the VA is welcoming (Kauth et al., 2018; Sherman et al., 2014a). Furthermore, some transgender veterans have indicated lingering stressors and barriers to receiving care at the VA, such that they may opt not to disclose their identity, or to avoid the VA altogether (Chen et al., 2017; Dietert et al., 2017; Rosentel et al., 2016; Shipherd et al., 2012).

The lower number of transgender men compared to transgender women seeking care at the VA may contribute to the former gauging a less safe environment, leading to their lower rates of disclosure (Kauth et al., 2018; Lehavot et al., 2017). The VA may consider a specific transgender male veteran outreach programme, coupled with staff training on the unique needs of this group. Similarly, many active duty GB men do not feel comfortable disclosing their sexual orientation to healthcare providers, despite the DADT repeal (Biddix et al., 2013). The active duty healthcare system may consider similar staff trainings on the
needs of this population, as well as outreach messages that openly LGBTQ service members are accepted.

These findings are in line with past research indicating that military-experienced LGBTQ individuals are sensitive to the discriminatory history of the military, and continuously gauge their environment for safety (Moradi, 2009). The stress of monitoring for anti-LGBTQ stigma, concealing and disclosing strategically, and lacking a strong support system to buffer these stressors, is likely related to the previously discussed mental distress this community faces (Meyer, 2003).

**Sexual trauma**

The current review found that specific sub-groups of LGBTQ military personnel and veterans are at greater risk for military sexual assault. Transgender male veterans were found to be at highest risk for military sexual assault, with transgender veterans of both sexes at greater risk than non-transgender veterans (Beckman et al., 2018). In the civilian literature, transgender individuals are at a similar heightened risk, with transgender males experiencing lifetime sexual assault most frequently (James et al., 2016). It could be the case that the ‘gender policing’ noted in military settings is especially salient in situations where one’s gender orientation does not align with expected presentation, opening one up to violent victimisation (Castro & Goldbach, 2018; Poulin et al., 2018). Sexual assault is a recognised problem in military settings, and is getting worse (Department of Defense, 2018). The most robust policies must be maintained to protect service members from assault, to remove perpetrators from the workplace, and to aid victims in their recovery.

It should be noted that the papers reviewed here focus on sexual assault of transgender individuals, yet other sexual minorities have also been found to be at risk. Both civilian and military research has found that LGB individuals report significantly higher rates of adverse experiences in their childhood, and greater sexual victimization over the lifespan, than heterosexuals (Blosnich & Andersen, 2015; Mattocks et al., 2013). Taking into account Segal et al.’s (2015) life course model, it is important to view service members’ well-being not only from the perspective of their experiences while serving, but also with the acknowledgment that these experiences may be rooted in their pre-military life. This is to say that sexual trauma encountered while serving may exacerbate or complicate healing from pre-service victimization. Additionally, civilian literature has found bisexual women at higher risk of sexual assault than lesbians (Center for Disease Control, 2010), and future research on LGBTQ service members and veterans should consider this possible sub-group disparity. The annual Department of Defense report on sexual assault of active duty members may also consider reporting on the demographics of victims, including gender, LGBTQ identity, race, and rank, such that possible disparities can be noted and tracked.

**Physical health**

Taking into account the proven relationship between stress and physical health for LGBTQ individuals and the general population, this review’s findings of poor physical health of LGBTQ service personnel are not surprising (Frost, Lehavot, & Meyer, 2015; Lazarus & Folkman, 1984; Lick, Durso, & Johnson, 2013). Civilian research has found that LGBTQ individuals experience greater physical health concerns, such as poor general health, cancer, cardiovascular disease, asthma, and diabetes (Lick et al., 2013). One study reviewed here found that LGB veterans were at significantly decreased risk of being overweight or obese as well as of being diagnosed with diabetes (Blosnich et al., 2013), although, as noted by the authors, the low number of sexual minority women may have impacted these specific results, and gender may in fact moderate this relationship given a larger sample size. This seems possible given the finding that women veterans overall experience poorer general health than active duty, reserve, National Guard, and civilian women in the US (Lehavot et al., 2012).

Civilian studies have found that prejudicial traumatic events have a stronger negative effect on physical health than general stressful life events (Frost et al., 2015). It may be the case that military-experienced LGBTQ individuals are at greater risk of prejudicial traumatic events by virtue of living, working, and seeking healthcare in spaces historically permissive of anti-LGBTQ sentiment and violence (Burks, 2011; Castro & Goldbach, 2018). Dominant societal messages of fitting into the ‘band of brothers’ as a male-at-birth heterosexual warrior may be internalized and codified in military policies, and can result in negative self-worth and health behaviours (Hatzenbuehler, 2014; Meyer, 2003; Zurbriggen, 2010). Without a strong community support network or psychological coping skills to buffer these external and internal stressors, the stigmatized individual experiences chronic stress and associated health consequences (Meyer, 2003). Also, there is evidence that
both male and female sexual minority service members are hesitant and fearful to discuss their sexual identity and sexual health needs with healthcare providers, which may delay or preclude some from seeking care (Biddix et al., 2013; Nusbaum et al., 2008). Therefore, improved service provision for this population may include overt communication from provider to patient, indicating openness and knowledge regarding sexual minority health.

**Future directions**

In light of the current review’s findings, a consensus seems to have been reached regarding health-related disparities between LGBTQ and non-LGBTQ service members and veterans.

This review also identified gaps in the literature that researchers should prioritize. First, there is a dearth of literature on military sexual trauma and sexual minorities. Second, the field would benefit from well-being studies that not only identify risk factors that LGBTQ service members may experience, but that also identify protective factors that joining the military may provide. Third, studies on the physical health of sexual and gender minorities would benefit from larger sample sizes to assess for the presence of different outcomes by gender and sub-group sexual orientation. Fourth, and relatedly, a large proportion of studies focused on transgender service personnel’s well-being, and continued studies on the well-being of cisgender sexual minorities are needed. Lastly, this paper employs the term ‘queer’, yet this is infrequently used in academic writing, military policy, or healthcare settings. Sexuality research must respond not to the status quo of institutional norms, but to the lived experience and self-definition of the people it studies. Therefore, as more individuals are now starting to identify as ‘queer’, qualitative and quantitative researchers should consider incorporating this word (and others that emerge) into their work. This will allow institutions that rely on researchers’ work to guide policy, such as the military and healthcare settings, to properly speak to and represent the individuals they support.

It is worth noting that countries with more liberal LGBTQ military policies, such as the UK and Canada, have limited research on the health and well-being of this population. It could be the case that disparities between LGBTQ and non-LGBTQ military individuals do exist, and are being overlooked. It is also possible that stigma reduction techniques have been successful, and that LGBTQ military personnel are fully integrated. If that were the case, these countries could offer a paradigm of LGBTQ military inclusion, and literature mapping their successes could aid countries such as the US, where health and well-being disparities are evident.

Importantly, this review found that both active duty and veteran LGBTQ individuals are concerned that disclosure of their sexual orientation or gender identity may put them at risk for disrespectful comments or sub-par treatment in healthcare settings. Therefore, healthcare providers treating these groups must be culturally sensitive, and ensure all patients feel welcome presenting as their authentic selves. The VA should consider building on their LGBTQ veteran outreach plan, with a specific transgender male veteran outreach strategy focusing on educating staff and sharing explicit information regarding the services they provide. Providers should also be aware that LGBTQ veterans are at higher risk for several health concerns, highlighting the importance of providers inquiring as to patients’ sexual orientation and gender identity in written or oral assessments. Further, future research should investigate the lived experience of actively serving and former LGBTQ personnel following repeal of institutional bans on their service.

Subsequent studies may explore actively serving LGBTQ personnel’s disclosure decision-making of their sexual and gender identity to other military personnel, and the possible impact on well-being. Whether LGBTQ service members perceive their military workplace to be LGBTQ-inclusive remains to be seen. Now that open service is permitted for LGB military personnel in the nations included in this review, it would be beneficial to inquire into the sense of inclusion. As a meta-analysis of diversity in the workplace found, it is diversity management, and the intentional creation of a climate of inclusion, that leads to improved workplace and psychological outcomes (Mor Barak et al., 2016). The level to which actively serving LGBTQ personnel experience a sense of inclusion in their military workplace would be a logical next step in assessing the well-being of this population. As of this writing, open transgender service remains in limbo in the US; continued surveillance of the well-being of actively-serving transgender individuals is recommended. (Trump v Karnoski, 2019; Liptak, 2019)

**Strengths and limitations**

This international review of quantitative and qualitative literature is a critical step in understanding the
well-being of modern military LGBTQ personnel. As a stigmatized group, the present review lifts the curtain on the lived experience of these service members. In addition to being the first-of-its-kind international review of the literature, the methodology was theoretically grounded and guided. A holistic, life-course approach ensured the present review was able to provide a thorough picture of the well-being of LGBTQ serving and ex-serving personnel. Additionally, as US policy on transgender personnel is in flux, the findings provide an aggregate of research on transgender service member and veteran well-being.

Yet, the current paper contains limitations that should be considered. The majority of articles included were conducted in the US—thus, while the review sheds light on results published in Western nations in the English language, we note that it is not global in nature. Most articles were also based on service members and veterans served by the VA; therefore, generalizability to worldwide militaries is restricted. Specific policies, workplace culture, and provision of healthcare services related to LGBTQ military members and veterans may differ from country to country. Further, as most studies collapsed LGB individuals into a single group, disparities between sexual orientation sub-groups are not adequately addressed. Sexual orientation of transgender individuals is also rarely taken into account. Being a heterosexual transgender individual may confer certain strengths, but also certain challenges, compared to being a sexual minority transgender individual. This complexity, paired with one’s military service, would be a logical next step in investigating transgender service members’ well-being. To address these concerns, sample sizes should be large enough to allow for a nuanced investigation of sexual orientation sub-groups among transgender and non-transgender people. Lastly, most studies were cross-sectional in nature; the field would benefit from longitudinal studies to take into account experiences across the lifecycle.

Conclusion
The conversation about integration of openly LGBTQ service members has typically focused on concerns related to unit health and well-being (Belkin et al., 2012; National Defense Research Institute, 2010). The current review focuses on the health and well-being of LGBTQ service members and veterans themselves. It discovered consistent findings regarding poorer mental and physical health, higher rates of sexual assault and trauma, and lingering concerns of anti-LGBTQ stigma, among other issues, for LGBTQ individuals compared to their non-LGBTQ counterparts. There were also significant gaps in the literature that should be addressed in future studies. For example, additional research is needed to explore military sexual trauma prevalence and the impact on cisgender sexual minorities, as well as protective factors associated with serving in the military for LGBTQ individuals. An overall finding was that studies tend to merge sexual minorities into one group to compare to the well-being of heterosexual personnel; further research should investigate sub-group differences by gender, age, and sexual orientation.

As a group who have historically been targeted, and deemed undesirable in a military setting, the well-being of LGBTQ personnel and veterans is of critical importance, particularly as they are fully integrated into the military environment, and able to openly serve. In an all-volunteer force, maintaining operational effectiveness means creating a military that cares about the health and well-being of all. It is, therefore, essential that this population receives the same support and services as their non-LGBTQ peers. Future research should ensure data on LGBTQ personnel and veterans is collected as standard, and that specific projects are established to examine gaps in the literature.

Note
1. See news.bbc.co.uk/1/hi/uk/458625.stm

Disclosure statement
NTF sits on the Independent Group Advising on the Release of Data (IGARD) at NHS Digital. NTF is also a trustee of a veterans’ charity. KAM is an active duty member of the US Air Force. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR, the Department of Health and Social Care, the MoD, the US Air Force, or the US Department of Defense.

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