

AUTHOR QUERIES

DATE 7/26/2013

JOB NAME MILMED

ARTICLE D1200436

QUERIES FOR AUTHOR Harriet J. Forbes et al.

THIS QUERY FORM MUST BE RETURNED WITH ALL PROOFS FOR CORRECTIONS

AU1: Please confirm whether the short title is OK as edited.

AU2: Please check whether the heading levels are identified correctly.

AU3: Please note that citations of tables and figures from the headings have been deleted and moved to the end of the first sentences following the headings. Please check if this is OK.

AU4: Please provide the last accessed date for Ref. 28. 

Attitudes to Mental Illness in the U.K. Military: A Comparison With the General Population

Harriet J. Forbes*[†]; Caroline F. S. Boyd*[†]; MAJ Norman Jones (QARANC)[†];
Surgeon Capt Neil Greenberg, Navy[†]; Edgar Jones*[†]; Simon Wessely*[†];
Amy C. Iversen*[†]; Nicola T. Fear*

ABSTRACT Objectives: To compare attitudes to mental illness in the U.K. military and in the general population in England. Methods: Using data from a cross-sectional survey of 821 U.K. military personnel and a separate cross-sectional survey of 1,729 members of the general population in England, levels of agreement with five statements about mental illness were compared in the military and the general population. Results: The majority of respondents from both populations showed positive attitudes toward mental illness. The general population showed slightly more positive attitudes toward integrating people with mental illness into the community (68.0% [65.7%–70.1%] agreed that “People with mental illness have the same rights to a job as everyone else,” vs. 56.7% [51.5%–61.7%] of the military). However, the general population showed more negative attitudes about the causes of mental illness (62.4% [60.1%–64.6%] disagreed that “One of the main causes of mental illness is a lack of self-discipline and willpower,” vs. 81.3% [77.0%–84.9%] of the military). Conclusions: Overall, attitudes toward mental illness are comparable in the general population in England and the U.K. military. Differences included the military holding more positive attitudes about the causes of mental illness, but more negative attitudes about job rights of those with mental illness. Strategies aiming to improve attitudes toward mental illness could focus particularly on personnel’s concerns around mental illness impacting on their career.

INTRODUCTION

It is well known that deployment and combat exposure can increase the risk of mental health problems and alcohol misuse for military personnel.^{1–4} If left untreated, such problems impair wellbeing, and impact on family functioning and operational effectiveness of the fighting force.^{5–7} Therefore, facilitating access to appropriate help and effective treatment is vital.

Several studies have found that the stigma of admitting to a mental illness is the most commonly cited barrier to seeking treatment among military personnel^{4,8–9} and such beliefs can delay or inhibit treatment.^{10–13} Negative attitudes toward mental illness are known to be a problem in the general population¹⁴ and it is hypothesized that such attitudes may be intensified in military culture where traits such as stoicism, psychological resilience, and reserve are promoted and highly valued.^{9,15} Thus, researchers and policy makers within the military require a clearer understanding of attitudes toward mental illness to develop effective antistigma programmes.⁴

Using data from two cross-sectional samples of the general population and the military, the study aims are first to compare attitudes to mental illness in the U.K. military and the general population in England and second to examine

differences in attitudes across gender and age groups within the military and the general population.

METHODS

Study Populations and Data Collection

This study is based on two large population based cross-sectional surveys, which collected data on mental health attitudes. One survey with a sample size of 1,729 residents from England was carried out in 2007 and exclusively assessed attitudes to mental health.¹⁶ The other survey with a sample size of 821 U.K. military personnel, data collected during 2006 and 2007, where attitudes to mental health were embedded in a larger set of questions concerning health, wellbeing, and service use.²

General Population Data

In 2007, a survey was commissioned by the Department of Health as part of their ongoing analysis of attitudes to mental health.¹⁶ A nationally representative sample of people aged over 16 years living in England was selected. To identify a representative sample of adults, participants were sampled using a random location sampling method. England was split into areas (sample points) and over 100 sample points were selected to ensure adequate coverage of the geographic and socioeconomic profile of England. The sample points were further subdivided into two geographically distinct sections and used in alternate waves of fieldwork. Blocks of 150 addresses were sampled within each half of the sample points. Quotas were set to ensure even demographic distribution of respondents (set

*King’s Centre for Military Health Research, King’s College London, Weston Education Centre, 10 Cutcombe Road, London SE5 9RJ, United Kingdom.

[†]Academic Centre for Defence Mental Health, King’s College London, Weston Education Centre, 10 Cutcombe Road, London SE5 9RJ, United Kingdom.

by gender, presence of children, employment status). Data were collected through face-to-face interviews in the participants' home by fully trained interviewers. Interviews took place from January 24 to 28, 2007. In total, 1,729 participants took part. As quota sampling was used a response rate is not available.

Military Data

A sample of military personnel was drawn from Phase 1 of the King's College Military Health Research (KCMHR) Military Health study.^{2,17} In brief, the study was the first phase of a cohort study of U.K. military personnel in service at the time of the 2003 Iraq War (Operation TELIC, the U.K. military codename for the operation in Iraq). In total, 4,722 regular and reserve personnel who were deployed on TELIC 1 (the war-fighting phase, defined, for the purposes of this study, as the period from January 18, 2003 to April 28, 2003) and 5,550 regular and reserve personnel who were not deployed on TELIC 1 completed a questionnaire between June 2004 and March 2006 on their military and deployment experiences, lifestyle factors, and health outcomes. A proportion of the study participants was subsequently deployed (i.e. TELIC 2–6) whose mission was counterinsurgency rather than war fighting. The response rate for the Phase 1 study was 58.7%. Full details can be found in Hotopf et al.¹⁷

The participants for the current study were drawn from those who completed questionnaires from Phase 1 of the KCMHR military health study and consented to follow-up. A "two-phase survey" technique was used, as one of the original objectives of the survey was to identify the prevalence of psychiatric diagnoses in the whole KCMHR military health study sample.² Possible psychiatric cases were identified from Phase 1 data and were oversampled as the outcomes of interest (service use and help-seeking) were only relevant to cases. To ensure adequate power to make statistical inferences, the sample was stratified by regular/reserve status (50% each) and deployment status (50% deployed on TELIC 1, 50% deployed elsewhere or were not deployed). In all other respects, group participants were representative of the KCMHR military health study responders with regards to Service branch and demographic characteristics (age, rank, ethnicity) and in turn the main study was representative of the U.K. military in 2003.¹⁷ The final sample size was 821 participants (adjusted response rate of 75.8%). Data were collected via telephone interviews during 2006 and 2007.

Attitudes to Mental Health

Participants in both surveys were presented with a series of statements about mental illness. The general population was presented with 27 statements, whereas the military sample was presented with five statements. The five state-

ments and response options presented to the military population were identical to five of those presented to the general population and are described here. Three of these statements addressed the themes (outlined by the Department of Health),¹⁶ "Integrating people with mental illness into the community," "Mental Illness is an illness like any other," "People with mental illness should have the same job rights as everyone else," and "Most women who were once patients in a mental hospital can be trusted as babysitters," one statement addressed the theme "Causes of mental illness" (One of the main causes of mental illness is a lack of self-discipline and willpower), and one statement addressed the theme "Fear and exclusion of people with mental illness" (People with mental illness should not be given any responsibility). Participants were asked to state their level of agreement with each statement using a 5-point Likert scale, ranging from "strongly agree" to "strongly disagree," and with the additional option of "don't know."

Statistical Analysis

For analysis, the response option "strongly agree" was combined with "agree," and the response option "strongly disagree" was combined with "disagree." For each statement, the proportion of those answering "agree," "disagree," "don't know," and "neither agree nor disagree" was calculated, with the standard error. This was done for both the military and the general population sample separately. The samples were stratified by age and sex and the proportions choosing each response option were also calculated for these subgroups. Differences in the point estimates of the two populations were deemed to be statistically significantly different if the two 95% confidence intervals did not overlap. All proportions were weighted to take account of the sampling strategies used in the two samples using the survey command in STATA. Weighting for the military sample was based on the inverse of the sampling weight for the three characteristics that were oversampled in the study (reserve status, deployment status, and psychiatric caseness). General population survey data were weighted to match the population profile by region. All statistical analyses were undertaken using the statistical software package STATA (version 10 for Windows).

Ethics

The military study received approval from both the King's College Hospital NHS Research Ethics Committee (ref: 05/Q0703/155) and also from the Ministry of Defence (Navy) Personnel Research Ethics Committee (ref: 0522/22).

RESULTS

Table I shows that males and those aged 35 to 54 years made up the majority of the military sample, whereas the

TABLE I. Age and Sex Distribution of 2 Population Samples

Variable	Military Sample, n = 821		Population Sample, n = 1729	
	n	%	n	%
Age (Years)				
16–34	290	31.6	457	29.2
35–54	504	64.0	586	34.8
54+	27	4.4	686	36.0
Sex				
Male	720	87.7	798	48.6
Female	101	12.3	931	51.4

Proportions are weighted.

general population sample was evenly distributed by age and gender.

AU2 *Mental Illness Is an Illness Like Any Other*

The majority of respondents in the military (68.4%) and the general population (72.9%) agreed with this statement (Table II and Fig. 1). However, disagreement with this statement was higher in the military (26.1%) than in the general population (17.1%). When the results were stratified by sex, the proportion of men in the military disagreeing with this statement was significantly higher (27.1%) compared with the proportion of men in the general population (17.5%). Analysis by age shows the proportion disagreeing with the statement declines among older age groups in both samples. Military participants aged 16 to 34 years were more likely to disagree with this statement than the general population (military 33.0% vs. population 23.0%); and military participants were less likely to “Neither agree nor disagree,” than 16 to 34 year olds in the general population (military 4.4% vs. population 13.1%).

One of the Main Causes of Mental Illness Is a Lack of Self-Discipline and Willpower

In total, 81.3% of military personnel disagreed with this statement, compared to 62.4% of the general population (Table II and Fig. 2). Stratification by age and sex showed there was significantly higher disagreement with this statement in the military in both sexes and in 16 to 34 and 35 to 54 year olds compared to the general population. Within the military, 0.3% answered “Don’t Know” and 6.8% answered “Neither agree nor disagree” in response to this statement, and the proportion answering in this way was significantly higher in the general population (6.7% vs. 16.6%, respectively).

People With Mental Illness Should Not Be Given Any Responsibility

The majority of participants in both the military (62.6%) and the general population (63.8%) disagreed, and the proportion agreeing with this statement was low in both

TABLE II. Agreement With Statements Reflecting Attitudes to Mental Illness Among Military Personnel and the General Population (%); (95% Confidence Interval)

	Agree		Neither Agree Nor Disagree		Disagree		Don't Know	
	General Population	Military	General Population	Military	General Population	Military	General Population	Military
Mental Illness Is an Illness Like Any Other	72.9 (69.7–73.9)	68.4 (63.3–73.0)	8.2 (7.0–9.6)	4.4 (2.7–7.2)	17.1 (15.4–19.0)	26.1 (21.8–30.9)	2.8 (2.2–3.7)	1.2 (0.5–2.9)
One of the Main Causes of Mental Illness Is a Lack of Self-Discipline and Willpower	14.4 (12.8–16.2)	11.5 (8.7–15.2)	16.6 (14.9–18.4)	6.8 (4.6–10.0)	62.4 (60.1–64.6)	81.3 (77.0–84.9)	6.7 (5.6–7.9)	0.3 (0.2–0.6)
People With Mental Illness Should Not Be Given Any Responsibility	14.5 (12.9–16.2)	11.9 (8.9–15.6)	19.2 (17.4–21.2)	20.5 (16.6–25.1)	63.8 (61.5–66.0)	62.6 (57.5–67.5)	2.6 (1.9–3.4)	5.0 (3.2–7.9)
People With Mental Illness Should Have the Same Rights to a Job As Everyone Else	68.0 (65.7–70.1)	56.7 (51.5–61.7)	16.6 (14.9–18.5)	18.0 (14.3–22.5)	12.9 (11.4–14.6)	20.9 (16.9–25.5)	2.5 (1.9–3.3)	4.4 (2.8–7.0)
Most Women Who Were Once Patients in a Mental Hospital Can Be Trusted As Babysitters	22.3 (20.4–24.3)	22.7 (18.7–27.2)	33.6 (31.5–35.9)	27.3 (22.9–32.3)	37.6 (35.4–40.0)	34.7 (30.0–39.8)	6.5 (5.4–7.8)	15.3 (11.9–19.4)

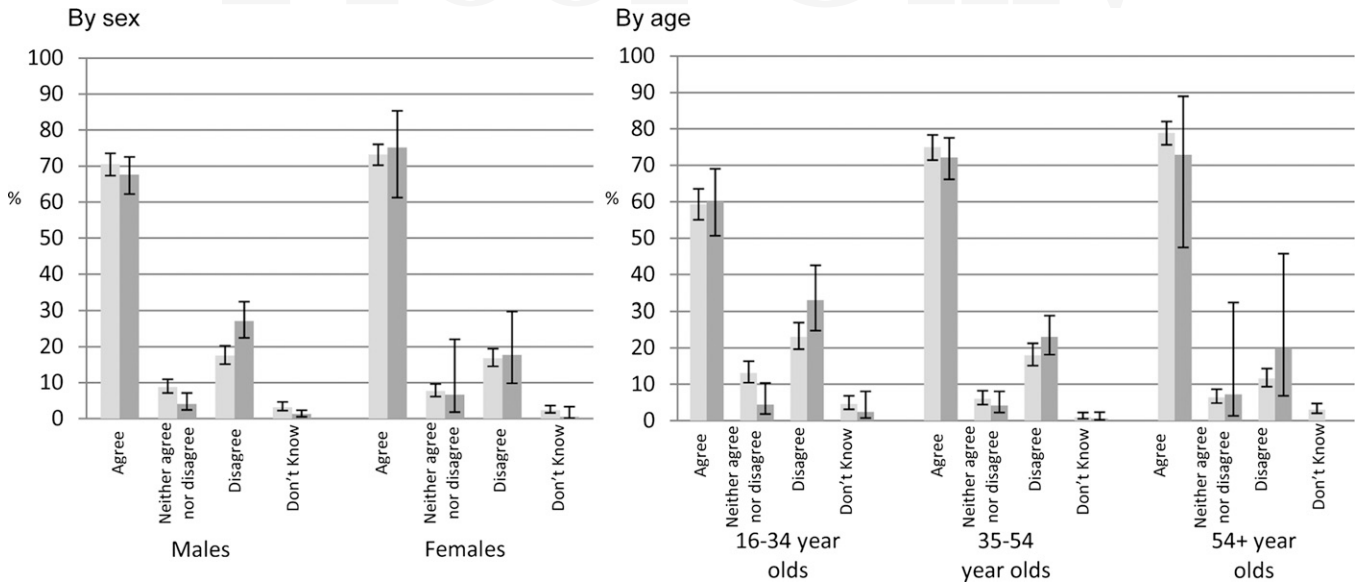


FIGURE 1. Mental illness is an illness like any other; responses by sample, sex, and age.

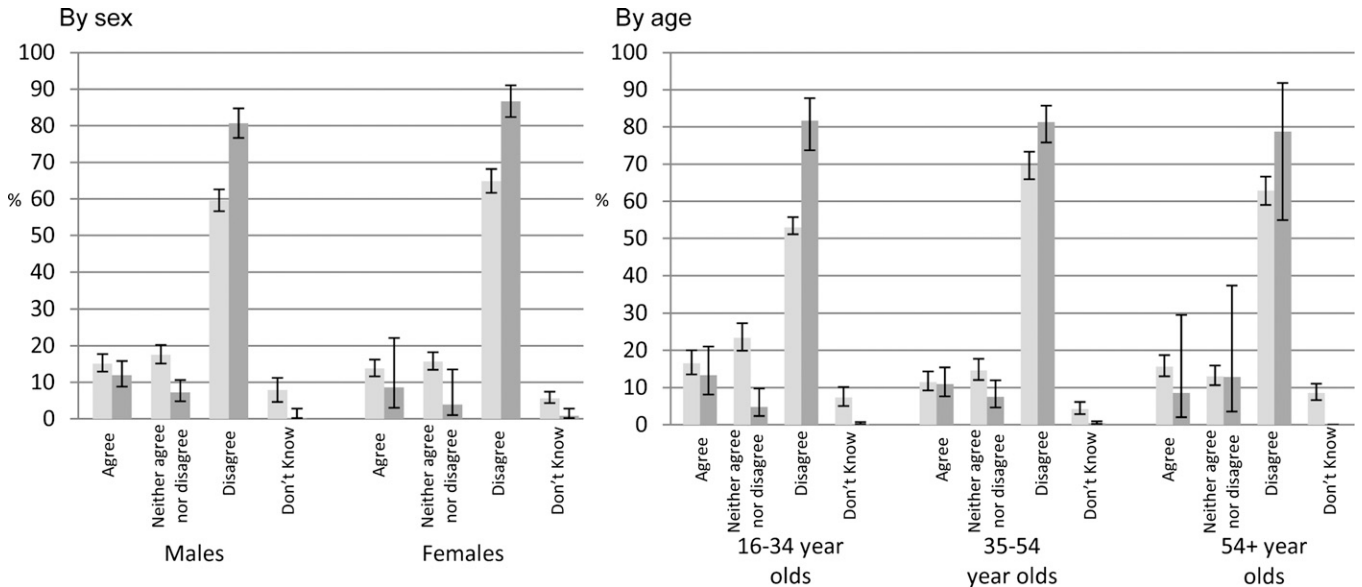


FIGURE 2. One of the main causes of illness is a lack of self-discipline and willpower; responses by sample, sex, and age.

samples (military 11.9% vs. population 14.5%) (Table II and Fig. 3). Approximately, 20% of participants chose “Neither agree nor disagree” in both samples. No differences were found by age and gender.

F3

People With Mental Illness Should Have the Same Rights to a Job As Everyone Else

The proportion agreeing with this statement was lower in the military sample (56.7%) than in the general population (68.0%) (Table II and Fig. 4). Stratification by sex showed that males in the general population agreed more with the statement (68.0%) than males in the military (54.9%). There

F4

was no evidence for a difference between females in both samples. The lower level of agreement in the military was seen across all age groups.

Most Women Who Were Once Patients in a Mental Hospital Can Be Trusted As Babysitters

There was no evidence for any difference between the samples in the proportions agreeing or disagreeing with this statement (Table II and Fig. 5). A larger proportion of the military answered “Don’t Know” (military 15.3% vs. population 6.5%) whereas a larger proportion of the general population answered “Neither agree nor disagree” (population

F5

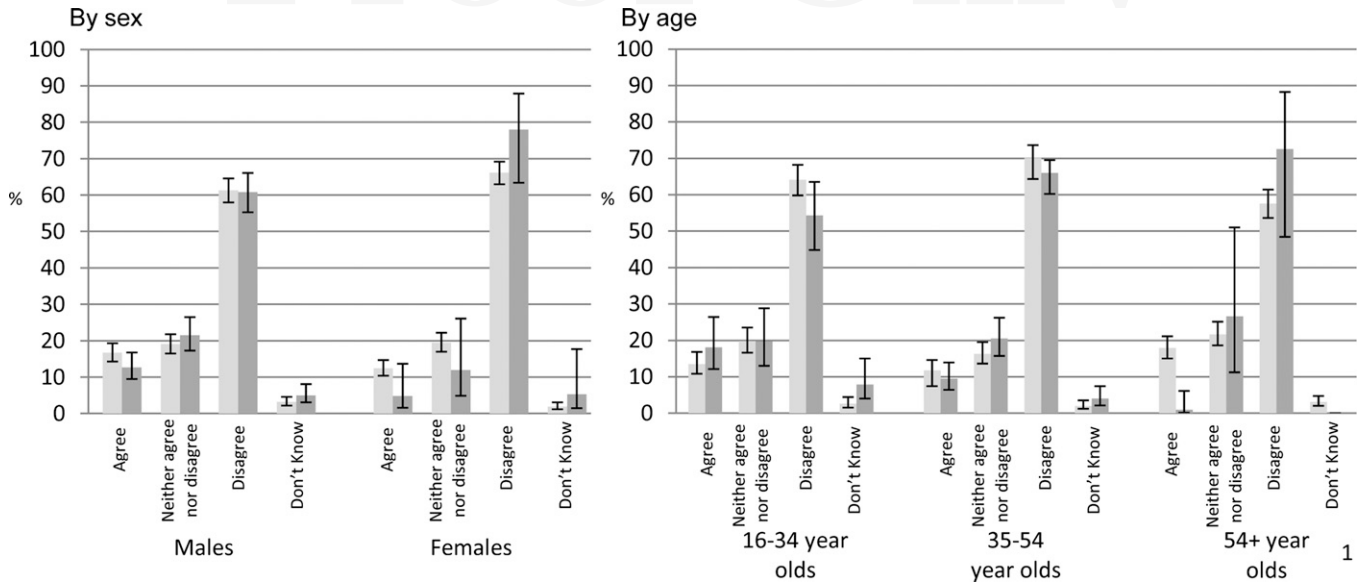


FIGURE 3. People with mental illness should not be given any responsibility; responses by sample, sex, and age.

33.6% vs. military 27.3%). No differences were found by age and gender.

DISCUSSION

Main Findings

Contrary to popular stereotypes,^{9,15} the study showed that attitudes toward mental illness are not substantially different among military personnel compared to the general population; the majority of respondents from both populations showed positive attitudes toward mental illness, with similar proportions from both populations reporting

negative attitudes. Females and older people showed more positive attitudes in both populations. One area of difference between the two populations, however, was that the military showed more positive attitudes about the primary causes of mental illness, specifically in relation to the idea that the main cause of mental illness is a lack of self-discipline and willpower. Another area of difference was that military personnel showed more negative attitudes about integrating people with mental illness into the community and workplace in comparison to the general population. As our findings indicate, a greater proportion of the military disagreed with the idea that “Mental illness is an

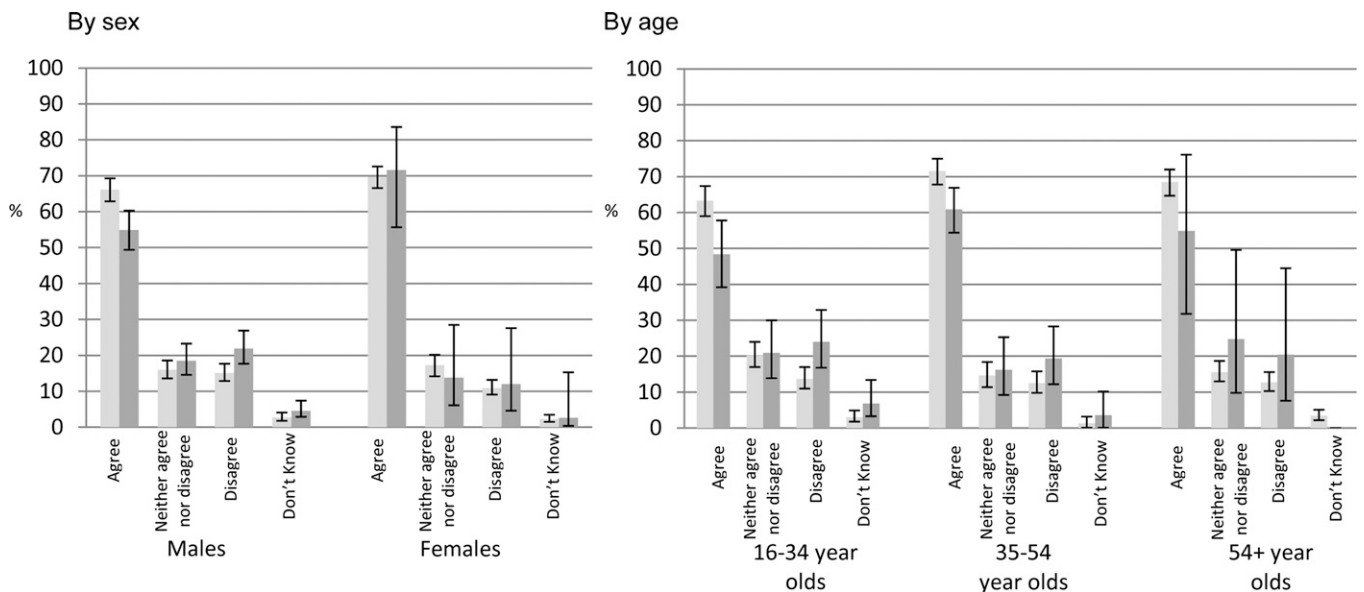


FIGURE 4. People with mental illness should have the same rights to a job as everyone else; responses by sample, sex, and age.

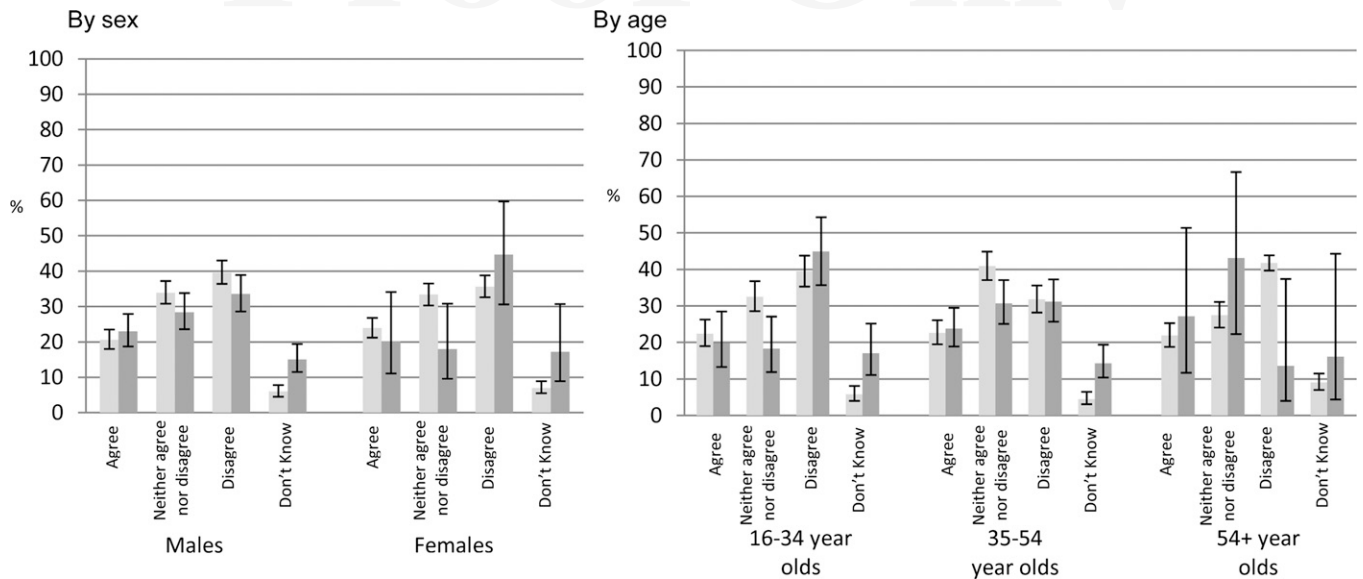


FIGURE 5. Most women who were once patients in a mental hospital can be trusted as babysitters; responses by sample, sex, and age.

illness like any other,” as well as the notion that “People with mental illness should have the same job rights as everyone else.”

Interpretation of These Results

This is the first study to compare attitudes toward mental illness in the military and general population. Because of the paucity of literature on this subject, we could only speculate if, and how, attitudes toward mental illness differ between these two populations. The masculine culture of the military, which emphasizes the importance of characteristics such as strength and resilience, has led to the hypothesis that the military may hold more negative attitudes to mental illness compared to other groups.^{9,15} Our findings do not, however, support this hypothesis; below we explore potential explanations for this.

It is likely that the military has greater exposure to mental health education than the general population. Military personnel are exposed to a range of psychoeducational programmes around deployment, including preoperational, operational, and postoperational mental health briefings,¹⁸ which grant them greater awareness about mental illness. In contrast, research has shown that the general population know little about mental illness, not helped by its predominantly negative portrayal in the media.¹⁴ Mental health programmes within the military may therefore have had some impact on attitudes, making attitudes toward mental illness more similar, if not more positive, than those of the general population. Furthermore, the military’s mental health education programmes highlight the role of external stressors (such as exposure to combat and trauma) in acute breakdown and, in more extreme cases, post-traumatic stress disorder (PTSD), rather than factors such as personality, vulnerability, and childhood adversity.^{11,18–19} It

may be that such programmes shape the wider military culture’s view of the causes of mental illness, explaining the greater disagreement with the belief that the main cause of mental illness is a lack of self-discipline and willpower among the military, compared to the general population.

Alternatively, mental health programmes may have increased awareness of socially desirable attitudes toward mental illness within the military, without causing any fundamental changes to privately-held attitudes. Social desirability bias has been identified as a concern in studies assessing attitudes²⁰ and this effect may have been present in the military study as it was delivered by an organization with funding from the Ministry of Defence (MoD). Despite the assurance of confidentiality, it is possible that many military participants viewed the survey administrators as linked to the MoD and subsequently gave more socially desirable responses.

It is possible that military personnel and the general public interpreted “mental illness” differently, which could have affected their responses. The general public may think of psychotic disorders, such as schizophrenia, which in popular culture are associated with ideas of unpredictability, threat, and violence. However, the military is less likely to come into contact with people with such disorders, as they will have been screened out during recruitment and these conditions are not discussed in psychoeducational briefings. Instead, military personnel are more likely to be familiar with mental illnesses such as depression and PTSD, as these are the focus of military mental-health briefings and peer-led schemes such as Trauma Risk Management.²¹ For example, Trauma Risk Management military practitioners seek to “normalize” such mental illnesses through emphasizing them as “stress reactions within an appropriate environment.” Thus, negative attitudes toward these “mental

illnesses” may have been reduced among the military compared to the general population, as military personnel could perceive the manifestation of symptoms of depression and PTSD as not unusual or even pathological in individuals following exposure to traumatic events.^{11,18–19}

The proposition that people with mental illness should have the same job rights as everyone else revealed significant difference between the military and the general population (particularly among males). In one respect this is an intuitive finding, as the reality is that military personnel diagnosed with a mental health problem are restricted from certain high-risk occupations, such as weapon and explosives handling and piloting an aircraft.⁹ The U.K. Equality Act, which aims to protect those with mental health problems against any discriminatory treatment in the workplace, does not apply in the military as it does in other professions.²² Additionally, it could be argued that it is understandable that military personnel feel job rights should differ for those with a mental illness because of the military “buddy–buddy” system in which personnel are wholly reliant upon their peers for their safety and the unit’s combat effectiveness. It is perhaps not unreasonable that military personnel might have less confidence in those with a mental illness when they are fighting alongside them.

An age effect has been found in most studies investigating stigma in Western populations.¹⁴ For example, one follow-up study, which conducted 1,725 interviews with a representative population sample, found that the 16 to 19 years age group held the largest proportion of negative views.²³ Regarding a gender effect, that was found in this article, previous findings have been mixed. One study, comparing the differences in public attitudes toward mental illness in Athens in 1979/1980 to 1994, found that males in the 1994 sample were more stigmatizing than female subjects, but no difference was observed between the sexes in the earlier sample.²⁴ Another study, comparing the attitudes of the Australian public toward people treated for a mental disorder, presented participants with a vignette describing a person with schizophrenia or one with depression. Among the general public, females were more likely to rate positive outcomes for the person in the depression vignette, but no other sex differences were found.²⁵

Strengths and Limitations

The study suffers from some methodological limitations. The use of two different types of interviewer-administered methods (the military survey was conducted over the telephone, whereas the general population survey used face-to-face interviews) may have compromised the comparability of the results. A review comparing biases introduced by using mixed questionnaire modes found fewer differences in studies using different types of interviewer-administered modes compared with different modes (such as face-to-face and self-completed questionnaires).²⁶ However, some studies

report differences in social desirability bias when using telephone vs. face-to-face questionnaires, with neither mode consistently giving more socially desirable responses. Consequently it is difficult to determine how this issue may have affected the results. Within the military sample, the 54+ years age group was small ($n = 27$), therefore the findings for this age group may not be generalizable to the older military population.

The five statements included in this study were used because they were a subset of the items used within the National survey. The authors acknowledge that the study findings relate to a limited number of attitude items, given that as the primary aim of the military study was to assess treatment for mental illness and access to care.² Some items may also need revising since their formulation in 1994²⁷ such as the fifth statement, which targets only women and refers to mental hospitals that no longer exist as described.

In spite of these issues, both surveys were carried out during the same time period (between 2006 and 2007) and the sampling allowed for subgroup differences of age and gender to be analyzed, which has not been done previously.

Implications

Negative attitudes toward mental illness present a current challenge in the military and the general population. In both groups, young males could benefit from targeted antistigma campaigns and educational programmes. In light of our findings, these initiatives could focus particularly on personnel’s concerns around mental illness impacting on their career. Efforts to tackle negative attitudes toward mental illness in the United Kingdom have already begun. One major social marketing antistigma campaign, Time To Change, led by the charities Mind and Rethink, was launched recently in an attempt to end the stigma and discrimination surrounding mental health.²⁸ Within the military, the stigma is being addressed. In 2010, several antistigma proposals were recommended in an MoD commissioned report,²⁹ one of which outlined a 24-hour veteran support helpline, launched in March 2011 and currently being evaluated.³⁰ A new campaign by the British Army called “Don’t Bottle it Up” was also launched in early 2011.³¹ There is already evidence that educational programmes in the United States aiming at reducing stigma prove effective, with Warner and colleagues finding a 15% reduction in stigmatizing beliefs related to mental health care following such interventions.³² In addition, promoting contact with individuals with mental illness has been shown to be the most successful technique in terms of reducing stigma in the general population.^{14,33} This technique is yet to be fully implemented in a military context¹⁹ and could prove equally beneficial.

The less favourable attitudes to mental illness in an occupational setting are of concern as they may impact on military personnel’s willingness to seek help for mental

health problems. Indeed, the most commonly cited concern resulting from admitting to a mental illness is the perceived negative impact it will have on personnel's career.^{4,8-9} Modifying these attitudes is likely to be challenging for two reasons. First, because the job rights of military personnel with mental illnesses are in reality restricted as described above, and second, because attitudinal changes require an organizational culture shift which may be difficult to achieve. Therefore, it may be that organizational changes are required before attitudinal changes can be achieved. One suggestion of such a change proposed by Gibbs and colleagues could be to encourage self-referrals for confidential treatment for deployment-related mental illness, with an option for evening or weekend treatment hours.¹¹ The aim would be to reduce the visibility of a soldier's absence from duty and potentially the adverse effects of stigmatizing attitudes among peers. However, effecting an organizational shift is likely to be particularly challenging in the military, in which long-established structures and traditions are embedded in a culture of robust toughness, presenting difficulties for those who counter the culture by seeking help for a mental illness.¹⁵ The military is faced with the dilemma of protecting personnel from the genuine risks of employing people with mental illness in certain occupational roles while also ensuring that personnel do not avoid help-seeking for mental illnesses because of concerns about the impact of a diagnosis on their career.

CONCLUSIONS

Overall, this study found few differences in attitudes toward mental illness expressed by the general population in England and the U.K. military. Therefore the authors conclude that the difference in attitudes toward mental illness between the general population and the military is not as great as has been previously believed. The military held more positive attitudes about the causes of mental illness, but more negative attitudes about the job rights of those with mental illness and the nature of mental illness, compared to the general population. This latter finding has important implications as a significant barrier to reducing stigma in the U.K. military is the widely-held belief that personnel with mental illness will experience career difficulties, not only in terms of promotion but also the range of roles that they can undertake.

ACKNOWLEDGMENTS

The authors thank Lisa Bainbridge at the Royal British Legion. The military study in this article was funded by U.K.'s Ministry of Defence contract number R&T/1/0078.

REFERENCES

1. Fear NT, Jones M, Murphy D, et al: What are the consequences of deployment to Iraq and Afghanistan on the mental health of the UK armed forces? A cohort study. *Lancet* 2010; 375: 1783-97.
2. Iversen AC, van Staden L, Hughes JH, et al: The prevalence of common mental disorders and PTSD in the UK military: using data from a clinical interview-based study. *BMC Psychiatry* 2009; 9: 68.
3. Rona RJ, Fear NT, Hull L, et al: Mental health consequences of overstretch in the UK armed forces: first phase of a cohort study. *BMJ* 2007; 335: 603.
4. Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL: Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *N Engl J Med* 2004; 351: 13-22.
5. Hoge CW, Lesikar SE, Guevara R, et al: Mental disorders among U.S. military personnel in the 1990s: association with high levels of health care utilization and early military attrition. *Am J Psychiatry* 2002; 159: 1576-83.
6. Rona RJ, Jones M, Iversen A, et al: The impact of posttraumatic stress disorder on impairment in the UK military at the time of the Iraq war. *J Psychiatr Res* 2009; 43: 649-55.
7. Lester P, Peterson K, Reeves J, et al: The long war and parental combat deployment: effects on military children and at-home spouses. *J Am Acad Child Adolesc Psychiatry* 2010; 49: 310-20.
8. Gould M, Adler A, Zamorski M, et al: Do stigma and other perceived barriers to mental health care differ across Armed Forces? *J R Soc Med* 2010; 103: 148-56.
9. Iversen AC, van Staden L, Hughes JH, et al: The stigma of mental health problems and other barriers to care in the UK Armed Forces. *BMC Health Serv Res* 2011; 11: 31.
10. Iversen A, Dyson C, Smith N, et al: 'Goodbye and good luck': the mental health needs and treatment experiences of British ex-service personnel. *Br J Psychiatry* 2005; 186: 480-6.
11. Gibbs DA, Olmsted KLR, Brown JM, Clinton-Sherrod AM: Dynamics of stigma for alcohol and mental health treatment among army soldiers. *Mil Psychol* 2011; 23: 36-51.
12. Fikretoglu D, Guay S, Pedlar D, Brunet A: Twelve month use of mental health services in a nationally representative, active military sample. *Med Care* 2008; 46: 217-23.
13. Britt TW: The stigma of psychological problems in a work environment: evidence from the screening of service members returning from Bosnia. *J Appl Soc Psychol* 2000; 30: 1599-618.
14. Thornicroft G: *Shunned: Discrimination Against People With Mental Illness*, pp 170, 108, 183, and 237. Oxford, Oxford University Press, 2006.
15. Langston V, Greenberg N, Fear N, Iversen A, French C, Wessely S: Stigma and mental health in the Royal Navy: a mixed methods paper. *J Ment Health* 2010; 19: 8-16.
16. Office of National Statistics: *Attitudes to Mental Illness, 2007*. Available at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_076514.pdf; accessed September 26, 2012.
17. Hotopf M, Hull L, Fear NT, et al: The health of UK military personnel who deployed to the 2003 Iraq war: a cohort study. *Lancet* 2006; 367: 1731-41.
18. Pinder RJ, Fear NT, Wessely S, Reid GE, Greenberg N: Mental health care provision in the U.K. armed forces. *Mil Med* 2010; 175: 805-10.
19. Greene-Shortridge TM, Britt TW, Castro CA: The stigma of mental health problems in the military. *Mil Med* 2007; 172: 157-61.
20. Alexander LA, Link BG: The impact of contact on stigmatizing attitudes toward people with mental illness. *J Ment Health* 2003; 12: 271-89.
21. Frappell-Cooke W, Gulina M, Green K, Hacker Hughes J, Greenberg N: Does trauma risk management reduce psychological distress in deployed troops? *Occup Med* 2010; 60: 645-50.
22. UK Government: *Equality Act 2010*. Available at http://www.legislation.gov.uk/ukpga/2010/15/pdfs/ukpga_20100015_en.pdf; accessed September 26, 2012.
23. Crisp A, Gelder M, Goddard E, Meltzer H: Stigmatization of people with mental illnesses: a follow-up study within the Changing Minds campaign of the Royal College of Psychiatrists. *World Psychiatry* 2005; 4: 106-13.
24. Madianos MG, Economou M, Hatjiandreou M, Papageorgiou A, Rogakou E: Changes in public attitudes towards mental illness in the Athens area (1979/1980-1994). *Acta Psychiatr Scand* 1999; 99: 73-8.

25. Jorm AF, Korten AE, Jacomb PA, Christensen H, Henderson S: Attitudes towards people with a mental disorder: a survey of the Australian public and health professionals. *Aust N Z J Psychiatry* 1999; 33: 77–83.
26. Bowling A: Mode of questionnaire administration can have serious effects on data quality. *J Public Health* 2005; 27: 281–91.
27. Mehta N, Kassam A, Leese M, Butler G, Thornicroft G: Public attitudes towards people with mental illness in England and Scotland, 1994–2003. *Br J Psychiatry* 2009; 194: 278–84.
28. Institute of Psychiatry: Time to Change Is Having a Positive Effect on Reducing Mental Health Stigma and Discrimination [cited December 21, 2012]. Available at <http://www.time-to-change.org.uk/news/time-change-having-positive-effect-reducing-mental-health-stigma-and-discrimination>.
29. Murrison A: Fighting Fit: A Mental Health Plan for Servicemen and Veterans, 2010. Available at http://www.mod.uk/NR/rdonlyres/DF9DAC72-C196-4967-BBE9-4D8A6580E7F3/0/20101006_mental_health_Report.pdf; accessed September 26, 2012.
30. Rethink: Rethinking Combat Stress Support for Veterans, 2011. Available at http://www.rethink.org/how_we_can_help/news_and_media/press_releases/rethinking_combat_st.html; accessed September 26, 2012.
31. Gouldthorpe S: Stamping out stigma—army campaign urges troops to talk through troubles. *Soldier Magazine* 2011; 1: 33.
32. Warner CH, Appenzeller GN, Mullen K, Warner CM, Grieger T: Soldier attitudes toward mental health screening and seeking care upon return from combat. *Mil Med* 2008; 173: 563–9.
33. Corrigan PW, Penn DL: Lessons from social psychology on discrediting psychiatric stigma. *Am Psychol* 1999; 54: 765–76.

AU4