This is a pre-copyedited, author-produced version of an article accepted for publication in Occupational Medicine following peer review. The version of record for Walker, E.G., Jackson, C. A., Egan, H.H., & Tonkin, M. (2015). Workability and mental well-being among prison officers working in a Therapeutic Community. Occupational Medicine, 65, 549–551, is available online at: <https://academic.oup.com/occmed/article/65/7/549/1733694>

<https://doi.org/10.1093/occmed/kqv084>

**Workability and mental well-being among prison officers working in a Therapeutic Community.**

**E.J. Walker, C.A. Jackson, H.H. Egan, M. Tonkin**

**Correspondence to: E.J. Walker, Division of Psychology, School of Social Sciences, Birmingham City University, Birmingham B42 2SU, UK**

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| **Background** | Poor workability (WA) is associated with increased psychosocial hazards; yet it and mental well-being have not been researched in UK prisons.  |
| **Aims** | To explore the relationship between workability and mental well-being among prison officers. |
| **Methods** | An anonymous cross-sectional study of prison officers conducted in a UK prison with Work Ability Index and General Health questionnaires. |
| **Results** | Fifty-seven officers (59%) participated and of those 95% achieved GHQ caseness. Officers with poorer WA reported significantly higher GHQ scores and more sickness absence. Mental demands (correlated strongly with mental well-being; Pearson’s *r* = -.69) had significant associations with anxiety scores (β = -.55). Mental resources (significantly correlated with mental well-being; Pearson’s *r* = -.64) had significant associations with somatic symptoms (β = -.48). |
| **Conclusions** | Findings present clear associations between the mental demands and the potential impact upon mental well-being. Results help highlight the potential risks of working in demanding prison environments. |
| **Key words** | Prisons; workability; well-being; psychological health |

**Key Points**

* Ninety-five percent of officers sampled in a single category B prison reported high levels of mental health symptoms (GHQ caseness). Anxiety, feeling run down and sleep problems were most common.
* There was a strong and significant association between mental well-being and workability, as poor GHQ scores were associated with poor workability. Fifty-four percent perceived illness was a hindrance to their workability
* The assessment of workability should be applied to more high-demand workplaces in the UK, especially prisons and other secure facilities.

**Introduction**

Workability (WA) can be defined as a worker’s capacity to manage job demands in relation to their health and mental resources [1]. It accounts for all of the factors that may influence that capacity and make jobs more or less manageable [2]. A Spanish study considered workability and mental well-being in prisons, and found that emotional demands had a negative significant association with workability [3]. No studies have yet used the Work Ability Index (WAI), in UK prison officers. Prisons are not only concerned with security and custody, but also more increasingly with therapeutic rehabilitation. This is especially true of Therapeutic Community Prisons (TCPs), where prison officers undertake therapeutic work alongside offenders. Few studies have investigated the working lives of prison officers in the UK [4, 5]. Results have shown that psychological engagement with offenders and mental demands of the job can lead to vicarious trauma and high levels of workplace stress. Therefore monitoring the workability of prison officers in a TCP is essential for maintaining their ability to perform their roles and to preserve the goals of the establishment. The aim of the study was to explore the self-reported workability and mental well-being of officers in a UK TCP.

**Methods**

Ethical approval was obtained from the academic ethics committee at Birmingham City University (May 2012). The WAI [6], assessed physical and mental demands of work; the presence of diagnosed diseases; work-limitations due to illness; sick days; WA prognosis; and mental resources. Mental well-being was measured using the General Health Questionnaire 28-item version (GHQ-28) [7]. Scoring was based on the binary method in order to provide identification of caseness if individuals scored above a threshold of 3. [8]. Correlation and regression analysis was used in order to explain the relationship between workability and mental well-being.

**Results**

Questionnaires were completed by 57 prison officers, ranging in age from 21 – 69 years (*M* = 44.8, *SD* = 10.9); 38 (67%) were male. WAI scores ranged from 26 – 48 (*M* = 40.1, *SD* = 5.8), and total GHQ scores ranged from 4 - 60 (*M* = 28.1, *SD* = 12.1). Based on the binary scores of the GHQ-28, 95% of the sample possessed caseness.

Pearson’s correlations showed moderate and significant negative associations between overall mental well-being and two workability items: mental demands (*r* = -.69; *P* < 0.001) and mental resources (*r* = -.64; *P* <0.001). Mental well-being (as an outcome variable) was regressed with mental demands and mental resources as predictor variables; a highly significant model emerged (*F* = 34.13, *P* < 0.001). This explained 56% of the variance in overall mental well-being. Mental demands (*β* = -.49, *t* = -4.42, *P* < 0.001) was the most influential predictor, followed by mental resources (*β* = -.36, *t* = -3.29, *P* < 0.05).

Correlations between mental demands, mental resources and GHQ sub-scales showed somatic and anxiety symptoms correlated at the *P* <0.001 level. Table 1 shows the linear regression analysis between mental demands and mental resources as predictor variables and somatic symptoms and anxiety as separate outcome variables. Mental demands and mental resources explained 43% of the variance in GHQ somatic symptoms (*F* = 20.57, *P* < 0.001) and 48% of the variance in GHQ anxiety (*F* = 25.73, *P* < 0.001). Mental resources had significant associations with somatic symptoms, especially “feeling run down and out of sorts” (*r* = -.56, *P* < 0.001). Mental demands had significant associations with anxiety, particularly “sleep loss” (*r* = -.66, *P* < 0.001).

ANOVA (Table 2) revealed there was a significant difference in mean GHQ scores (*F* = 22.54, *P* < 0.001) and own prognosis of WA two years from now (*F* = 17.16, *P* < 0.001) among Workability groups. Poor Workability was associated with the highest GHQ scores and lower prognosis of future workability. The mean number of sick days taken in previous 12 months was 2 (*SD* = 3.9) with twenty-five officers (44 %)reporting having taken at least one or more sick days, and ranged from 0 – 20 days. Pearson’s correlation showed a significant positive association between illness (being a hindrance to current Workability) and overall GHQ scores (*r* = .55, *P* < 0.001).

**Discussion**

In a sample of prison officers working in a Therapeutic Community Prison, extremely high levels of (self-reported) psychological symptoms were found. Poorly perceived workability due to excessive mental demands was associated with poorer mental well-being (particularly somatic symptoms and anxiety). There were significant differences in GHQ scores between the excellent and poor workability groups. Mental demands and resources were found to collectively account for over half of the variance in overall mental well-being. Findings were similar to previous research [9, 3] showing clear links between health and demanding psychosocial risk factors.

This unique study is the first to explore workability in a UK Therapeutic Community Prison and in comparison with other prison working population studies [10, 3], the response rate (59%) was above that usually encountered. A limitation of the study was its cross-sectional design, precluding any definitive conclusions on the nature of the aetiology between workability and mental well-being. The results highlight the importance of mental demands and mental well-being among officers in all prison environments. These results can inform the design of improved training and health surveillance for officers who work closely with offenders. Longitudinal studies are needed to understand the aetiology of psychological difficulties in this unusual occupational group.

**Table 1.** Multiple linear regression analysis of mental demands and mental resources with somatic symptoms and anxiety as outcome variables.

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|  | **GHQ Somatics** |  | **GHQ Anxiety** |
|  | *B* | *SE B* | *β* | *t* |  | *B* | *SE B* | *β* | *t* |
| Mental Demands | -1.40 | .666 | -.265 | -2.10 |  | -3.09 | .631 | -.585\*\*\* | -4.90 |
| Mental Resources | -3.34 | .872 | -.483\*\*\* | -3.83 |  | -1.31 | .826 | -.189 | -1.58 |

\*\*\**P* < 0.001

**Table 2.** Global GHQ and Own Prognosis of WA scores among workability groups.

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| --- | --- | --- | --- | --- |
|  |  | **WAI groups** |  |  |
|  | Excellent*n* = 12 | Good*n* = 20 | Moderate-Poor*n* = 9 | *P* |
| Global GHQ *M* (*SD*) | 18.08 (5.8) | 28.10 (12.1) | 36.33 (7.4) | < 0.001 |
| Own Prognosis of WA *M (SD)* | 7.00 (0.0) | 6.86 (0.7) | 4.67 (2.0) | < 0.05 |

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