

Psychological Morbidity in iTTP: A UK Registry Study of Depressive Symptoms and Influencing Factors

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INTRODUCTION

Immune-mediated Thrombotic Thrombocytopenic Purpura (iTTP) is a rare, life-threatening haematological condition. Beyond acute clinical management, research increasingly highlights significant long-term physical and psychological morbidity, including **Post-Traumatic Stress Disorder (PTSD), anxiety, and depression**^{1,2}. While qualitative studies have identified further psychosocial challenges, existing data is predominantly non-UK based.

Furthermore, current quantitative research focuses primarily on symptom prevalence rather than exploring the possible factors that may be associated with psychological difficulties².

AIM

This study aims to evaluate the presence of symptoms of depression within iTTP patients in the UK. The secondary aim of this paper is to explore whether there are any factors that may be associated with these symptoms.

METHOD

- Study Design:** Quantitative analysis of patient follow-up data from the UK TTP Registry³.
- Participants:** Follow-up data from patients was analysed, with follow-ups ranging from one month to 39 years post-initial diagnosis.
- Outcome Measures:**
 - Patient Health Questionnaire (PHQ-9)⁴: A self-report measure used to assess depressive symptoms over the preceding two-week period.
 - Clinical Caseness: Scores were categorised according to UK primary mental health diagnostic thresholds for depression prevalence⁵.
- Data Collected:** Demographics including sex, ethnicity, and age of diagnosis.
- Statistical Analysis:**
 - Descriptive:** Mean PHQ-9 scores and prevalence of clinical caseness.
 - Secondary Analysis:** Tested associations between PHQ-9 scores and potential influencers, including neurological symptoms, medical history, and demographics.

RESULTS

Descriptive statistics of our sample:

N=516

Age: Average age of our participants was 53, with a range of 18-91 (only adults were included).

Sex: In line with TTP diagnoses across the country, women were represented more than men in our sample, with a ratio of approx. 3:1 female to male patients.

Ethnicity: As the majority of patients in this sample were recruited from London, ethnicity data from London provides the best comparator. According to the 2021 census, 53.8% of the London population identify as White, 20.7% as Asian/Asian British and 13.5% as Black⁶. Our sample supports the knowledge that TTP disproportionately affects patients from a Black minority ethnic population.

PHQ-9: The PHQ-9 average score was **8** (SD 6.44 =, Median = 7) indicating **mild depression**.

PHQ-9 clinical caseness: **37%** of patients reached the clinical threshold (≥ 10) for depression⁵, which compares to a community population estimate of **7.5%**⁷.

Secondary analysis showed a significant association between gender and scores on PHQ-9's with women having a higher PHQ-9 score of 8.36, compared to 6.9 for men (U = 2100, p = 0.009). No other factors had a significant association with PHQ-9 scores.

Age	
N	516
Mean	52.7 years
Median	53 years
Standard Deviation	15 years
Minimum	18 years
Maximum	91 years

Table 1 above showing descriptive data relating to age.

Sex	N
Men	128
Women	388
Total	516

Table 2 above showing data relating to patients' sex.

Category of Ethnicity	N	% of Total
White	282	54.70%
Mixed	5	1.00%
Asian/Asian British	56	10.90%
Black	123	23.80%
Other	16	3.10%
Unknown	34	6.60%

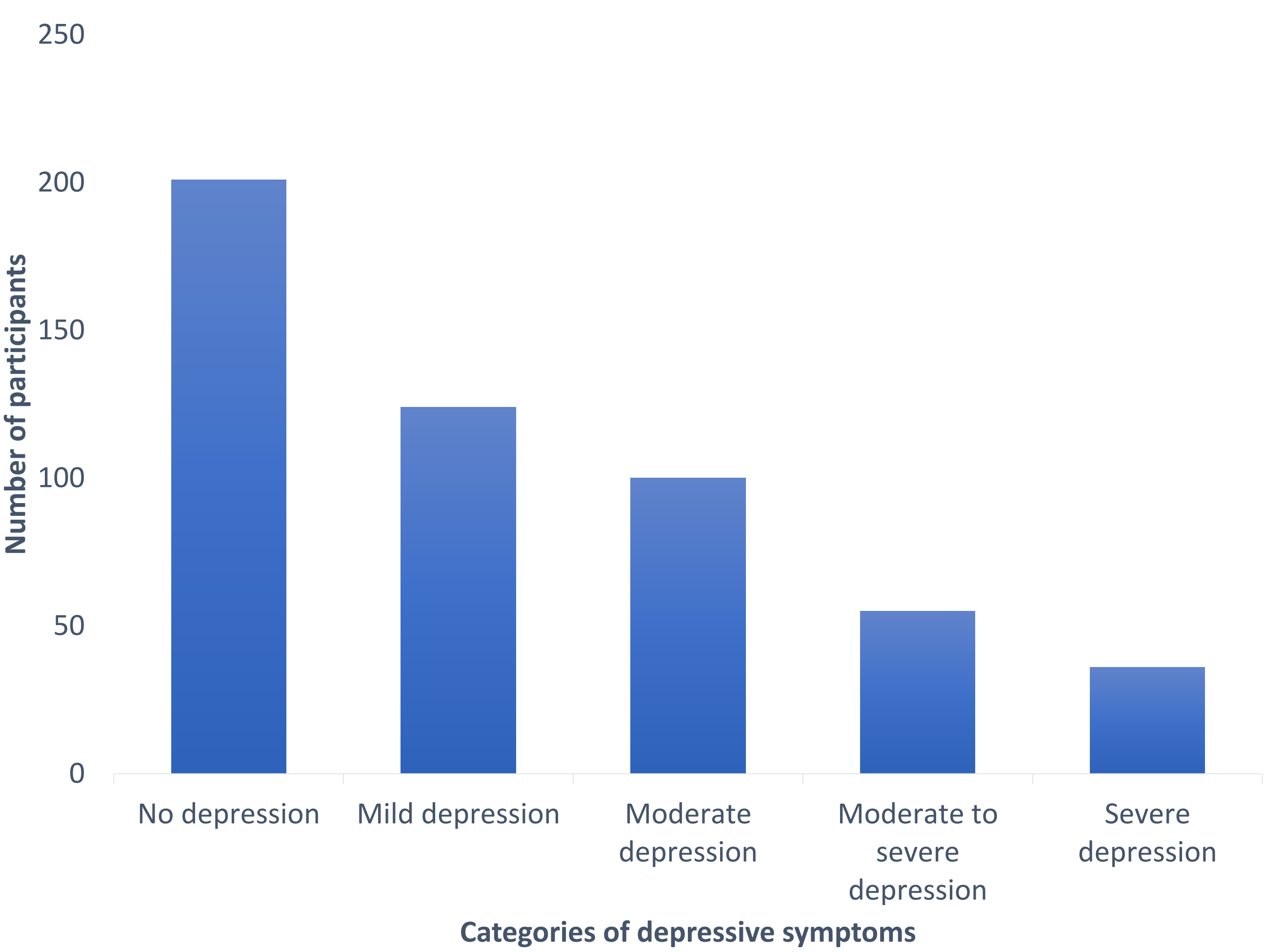


Figure1. Participants' scores in line with categories of depression severity.

Table 3 left showing demographic data relating to patients' ethnicity.

CONCLUSIONS

- Research Implication:** This study reinforces global findings within a UK-specific cohort, confirming the significant impact of iTTP on long-term emotional wellbeing.
- Clinical Implication:** There is a vital role for multidisciplinary medical teams to routinely monitor and provide integrated psychological support for iTTP patients.
- Future Direction:** Further research is essential to untangle the complex relationship between iTTP pathology and patient mental health to refine supportive care pathways.

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