The *STAR-MH* screening tool for identifying mental disorders in asylum seekers and new refugees

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## Background

Prevalence of clinical disorders (% caseness) in asylum seekers & refugees

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th>PTSD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asylum seekers</strong></td>
<td>61.1**</td>
<td>52.1*</td>
</tr>
<tr>
<td><strong>Refugees</strong></td>
<td>30.3</td>
<td>27.3</td>
</tr>
</tbody>
</table>

* *p* < 0.01, ** *p* < 0.05

(Hocking, Kennedy & Sundram, 2012)

| **General pop.**     | 4.1        | 6.4   |
| **(12-mth)**         |            |       |

(Australian Bureau of Statistics, 2007)
Inadequacy of extant screening tools for mental disorders in Asylum Seekers

Sector consultation
- **Australia** (FASST services, Hotham Mission, AMES, Red Cross)
- **International** (UK, i.e. Traumatic Stress Service, Maudsley Hospital; USA i.e., Program for Torture Victims, CA; Survivors of Torture International, CA; Refugee Mental Health Program, CO)

Literature review
- **K10** – not validated in culturally diverse settings; poor X-cultural predictive validity; no established cut-off for depression/anxiety disorders
- **RHS-15** – not developed for AS populations; detects distress not disorder; no predictive validity
- **DASS** – does not identify PTSD
- **GHQ-12** – does not identify PTSD; measures general distress; poor predictive validity (Ouimette et al., 2008)
- **PHQ-9** – does not identify PTSD; not suitable for low literacy (Ali et al., 2016)
- **SRQ-20** – too long.
Mental health screening of asylum-seekers is important for 4 reasons:

a) To facilitate appropriate and timely treatment

b) To expedite the resolution of refugee status determination and maximise the individual’s ability to credibly present their case *

c) To replace *ad hoc* and subjective mental health evaluations with a validated tool that can be applied uniformly by a range of workers in the field

d) To provide an objective measure to advocate for greater support throughout the refugee determination process where relevant.

* Aron, 1992; Cleveland, 2008; Cummins, 2013; Herlihy & Stuart, 2006; Steel, Frommer & Silove, 2004; Tay et al., 2013
Aim:
To develop a mental health screening tool for non-health workers
- Brief and easily administered
- Sensitive
- Simple

3 phases:
1. Tool development
2. Pilot process (iterative)
3. Qualitative feedback concerning length, interpretation, fidelity
# Inter-correlation of symptoms

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th>Anxiety</th>
<th>PTSD</th>
<th>Demoralisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>-</td>
<td>.77*</td>
<td>.80*</td>
<td>.72*</td>
</tr>
<tr>
<td>Anxiety</td>
<td>-</td>
<td>-</td>
<td>.74*</td>
<td>.61*</td>
</tr>
<tr>
<td>PTSD</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.68*</td>
</tr>
</tbody>
</table>
**Method: Phase I: Tool Development**

**Item derivation**

- An initial 12-item STAR-MH was derived from a questionnaire-based study.
- All questionnaire items entered into chi-square analyses → sensitivity (SN) and specificity (SP) against MINI PTSD and/or MDD. High SN &/or high predictive accuracy items retained.
- Duplicated items removed.
- ‘Immediate screen-in’ items included on clinical grounds (e.g. previous mental health treatment).
- 12-item version assessed in a test sample of asylum seekers at the ASRC (Asylum Seeker Resource Centre).
- ROC Curve and Classification and Regression Trees (CART) analyses performed.
- 10-item version assessed in a validation sample of asylum seekers and new refugees.

1\(^{st}\) version* 12-item scale (including 3 ‘screen in’ items)

2\(^{nd}\) version** 10-item scale (including with 2 ‘screen in’ items)

* ASRC sample

** ASRC & Monash Health Refugee Health Clinic sample
**Method:** Phase II - Pilot process (v.1 & v.2)

**Exclusion criteria:**
1. < 18 years old
2. Refugees < 12 months
3. Diagnosed with a mental disorder since being in Australia; currently seeing a psychiatrist.

**Process:**
- Screening tool administered by a range of non-health or non-mental health workers
- Diagnostically evaluated (M.I.N.I. 6.0 structured psychiatric interview) subsequently and blind to the participant’s STAR-MH screening results.

**Feedback & referral:**
- Written feedback from administrators (built into STAR-MH pilot form)
- Onward referral
Method: Phase II – Administration outcomes (v.2)

- N=28 administrators → caseworkers, GPs, nurses, university students, bicultural workers, interpreters
- Diagnostically evaluated (validation interview) within 5.5 days of screening (IQR 0-9)
- Time taken to administer: Md 6 mins (IQR 5-7 mins) → with or without an interpreter

Feedback to clients & referral:
- Psychoeducation given
- 84% (n=53) of diagnosed accepted referral (uptake unknown)
- 5% (n=9) of diagnosed declined treatment.
Results (1)
Participant profile – v.2

- **N=192** from 36 countries; 65% required English language interpreter
- 70% Male; 60% partnered; 54% arrived by boat
- 19-82 years (*Md*=33 yrs, *IQR*=28-43)

**Pre-arrival**
- 15% refugee camp
- 6% mental disorder

**Post-arrival**
- 55% Australian immigration detention
- **RDP stage**: 73% Primary stage; 20% appeal
- **Time since application**: 5–175 weeks (*Md*=113; *IQR*=62-143)
- **Work**: 57% on welfare; 16% work
- **Health**: 16% without Medicare
- 4% diagnosed mental disorder (in Australia)
Results (2)
Mental disorder prevalence (v.2)

- MDD: 30%
- PTSD: 20%
- PTSD &/or MDD: 32%
- 54% comorbidity (PTSD & MDD) – those who met criteria for a mental disorder
- **Other**: suicidality 7%; GAD 3%; panic disorder 2%; SUD 1.5%; psychosis 1%; OCD 0.5%; agoraphobia 0.5%
  - → 99% comorbid with either MDD or PTSD (n=190)

- Only 27% of those with a mental disorder had received treatment in Australia
- 77% of those who met criteria had a GP (family doctor)
## Results (3)

Predictive accuracy; sensitivity & specificity
(9-item scale version: 7 + 2 ‘screen in’ items)

<table>
<thead>
<tr>
<th>≥ 2 ‘Yes’</th>
<th>SN (%)</th>
<th>SP (%)</th>
<th>Area Under Curve</th>
<th>95% C.I.</th>
<th>Predictive accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDD</td>
<td>93.0</td>
<td>71.9</td>
<td>.90*</td>
<td>.85 – .94</td>
<td>72.9%</td>
</tr>
<tr>
<td>PTSD</td>
<td>100</td>
<td>66.7</td>
<td>.91*</td>
<td>.87 – .95</td>
<td>78.1%</td>
</tr>
<tr>
<td>MDD &amp;/or PTSD</td>
<td>93.5</td>
<td>74.6</td>
<td>.91*</td>
<td>.87 – .96</td>
<td>80.7%</td>
</tr>
</tbody>
</table>

* $p < .0001$
Results (4)
Area Under the Curve (ROC curve)
Conclusions

- High rates of unrecognised MDD & PTSD in asylum-seeker populations
- A final 9-item version of the STAR-MH was derived which demonstrated good predictive validity (PTSD & MDD) to distinguish distress from disorder
- Identifying PTSD &/or major depression will likely capture other co-morbid mental disorders in this population
- The *STAR-MH* is a simple, efficient screening tool to facilitate mental health referrals by non-health workers for asylum-seekers & new refugees at the agency of their first presentation.
Acknowledgements

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If interested in potentially being involved in the field study roll-out of the STAR-MH, contact:

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