A primary care programme to improve identification and stepped-care support of Asians with mental health and lifestyle issues

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INTRODUCTION: Asians living in Western countries have a higher incidence of mental health and lifestyle issues, but are less likely to disclose these to health-care professionals due to stigma. Instead, they tend to present to primary care with somatic concerns.

AIM: To assess the feasibility and acceptability of a well-validated electronic screening and stepped-care support tool (eCHAT) to identify mental health and lifestyle issues among Asian patients.

METHODS: A mixed-methods (interviews and survey) co-design approach explored patient and clinic staff perspectives on a translated version of eCHAT (AsiaCHAT). Recruitment was through a large primary care organisation with a high proportion of Asian patients. Of the 307 approached, 277 participated (92% acceptance rate).

RESULTS: Problems of depression (n = 12) and anxiety (n = 69) were identified among patients, as were sexual health concerns (n = 22) among younger participants. Overall, participants and clinic staff rated AsiaCHAT as a useful and acceptable tool for disclosing and discussing patient concerns. Problems of finances, time constraints and competing demands made long-term implementation challenging.

DISCUSSION: AsiaCHAT is a promising tool for identifying mental health and lifestyle concerns among Asians presenting to primary care. The electronic screener supports patient and provider discussion of sensitive topics and the stepped-care support function helps direct care. Its flexible functionality means that there is potential to integrate it into busy clinic settings as well as online patient portals, and the programme aligns with current policy to improve Asian health in New Zealand.

KEYWORDS: Mental health; Asian continental ancestry group; mass screening; risk-reduction behaviour; help-seeking behaviour; decision-making

Introduction

New Zealand (NZ) has seen a five-fold growth in the Asian population in the past 25 years, to nearly 12% in 2013, with most (61%) residing in Auckland and overseas-born. In the NZ census, ‘Asian’ refers to a pan-ethnic group with ancestral
origins in East Asia, South-east Asia and South Asia. The largest groups are Chinese (4.1%), Indian (3.6%), Filipino (1%) and Korean (0.8%).

Although their cultures, religions and languages are diverse, Asians have commonalities in relation to health and wellbeing with a holistic approach to health, importance of family and community, and initial preference for traditional treatments. Somatisation of mental health issues, especially depression and anxiety, is common among Asians. Mental illnesses are stigmatised and there is a reluctance to seek Western medical help for these issues despite their being at risk of psychological distress due to settlement issues in adapting to a new country, language difficulties, which may require the use of professional or family interpreters, and separation from family.

Among Asian cultures, illness is often seen as a threat to the homeostasis of the family and seeking treatment is a family venture. Stigma and discrimination associated with mental illnesses is directed towards the whole family and this contributes to reluctance in help-seeking.

A health needs assessment study found that the 2008–11 rate of access to mental health services for adults in the three Auckland District Health Boards (DHBs) was significantly lower for Chinese (n = 435) and other Asians (n = 827) than Europeans (n = 2096). Asians feel more comfortable seeking help for mental health issues from general practice clinics than secondary mental health services, because most Asian groups favour a holistic approach to health and seek a ‘one stop shop’ for their health-care needs.

For Asian people, physical health issues carry less stigma and discrimination than mental health and addictions issues, which may explain more somatised distress. Other health-related concerns of health policymakers in recent years are: problem gambling; physical inactivity among South Asians in particular; and alcohol and drug use in young Asians.

The organised and streamlined approach of primary care is beneficial for Asians, as risky lifestyle behaviours and mental health issues are inter-related for this population. Primary care can facilitate access to secondary mental health and addictions services and promote access to community-based support services. However, general practitioners (GPs) may have limited ability to detect possible issues and facilitate preventive measures for their Asian patients due to significant time constraints and language or cultural barriers.

The NZ Electronic Case-finding and Help Assessment Tool (eCHAT) screens for risk behaviours (smoking, drinking, recreational drug use, gambling, exposure to abuse and physical inactivity) and mental health issues (depression, anxiety, difficulty with anger control). It has been validated against a composite gold standard with Māori, Pacific and Asian populations. Additional tools for substance misuse (ASSIST) depression (PHQ-9) and anxiety (GAD-7) are triggered by positive screens and users aged <25 years are asked questions about sexual health. Its acceptability and feasibility have been studied for other populations. Answering initial questions on an e-tablet is non-threatening and facilitates subsequent conversations between patients and clinicians. After patient concerns are identified through eCHAT, clinicians can support patients in understanding their experiences and in identifying appropriate interventions. The eCHAT programme includes a stepped-care resource package (self-management, clinician interventions, community-based support agencies, secondary care services) tailored to specific settings.
The Waitemata District Health Board (WDHB) identified eCHAT as a potentially valuable tool for early holistic detection and management of mental health and lifestyle issues in Asian patients. We decided to produce a tailored version (Asia-CHAT), including translation of the tool into Mandarin and Korean. This study aimed to assess the feasibility and acceptability of using Asia-CHAT as a culturally appropriate screening tool for Asian primary care patients.

Methods
The study took place at the Apollo Medical Centre, one of the largest general practices in the WDHB area, with almost 20,000 enrolled patients, 44% of Asian origin. The clinic employs Chinese and Korean GPs with corresponding medical assistants (MAs), enabling consultations to be conducted in Mandarin or Korean.

The process of Asia-CHAT delivery (through invitation by the MAs), the eCHAT modules, translation of the tool and other resources, and the tailored resource package outlining available community agencies, were all developed in two workshops with clinical staff and researchers using a co-design approach. eCHAT screens for nine domains (problematic smoking, drinking, recreational drug use, gambling, depression, anxiety, exposure to abuse, difficulty with anger control, physical inactivity). Patients aged <25 years are also screened for sexual health issues (concerns about sexual orientation and identity, risk of pregnancy or sexually transmitted disease, unwanted sex). Clinic staff decided not to include abuse and anger questions, as they were concerned it may reveal issues they felt ill-prepared to address. A tailored package consisted of eCHAT screening in English, Korean and Mandarin (Asia-CHAT); a resource booklet for stepped-care management, including self-management support tools, support options provided by clinicians, available community and secondary health services; and a template for a stepped-care pathway, populated with appropriate local services (including services catering to Asian populations). The package was field tested before use by clinical staff with researcher support. Health and Disability Ethics Committee (NTY/11/10/102) and institutional ethics approvals were obtained.

Eligible participants were patients enrolled in the practice under the two Chinese and Korean GPs. Inclusion criteria were self-identification as Asian, aged ≥16 years and attending for a consultation. Patients not competent to consent were excluded.

The data were collected over 6 months. Prior to their consultations, the MAs invited participation from two consecutive patients per GP session. Participant information sheets and consent forms were in Mandarin, Korean and English. Participants completed Asia-CHAT on an e-tablet, the results were reviewed by their GP during their consultation, and they completed translated paper-based surveys to provide feedback on the acceptability and feasibility of Asia-CHAT use. Clinic staff kept a record of people invited and the decline rate. At the end of the study, audio-taped semi-structured interviews were conducted with MAs, GPs and the clinic manager. Each interview lasted 2 hours.

Asia-CHAT utility was measured using anonymised electronic results measuring positive responses, scores for PHQ-9 and GAD-7 where triggered and help-seeking behaviour. Patient acceptability was assessed using Likert scales, and feasibility was also assessed by checking individual items and free-text responses. Staff opinions on acceptability and feasibility were ascertained through the interviews.

Quantitative data were analysed using descriptive statistics for the number of patients screened, Asia-CHAT summary data, number of targeted assessments completed, demographic characteristics, and number, frequencies and means of survey responses. Qualitative data were analysed using a general inductive approach, with collated text analysed to identify emerging themes. Themes were independently coded by K. Shah and checked by A. Corter, with consensus reached by adjudication.

Results
Utility of Asia-CHAT
Of 302 patients invited to participate, 277 consented (92% acceptance rate): 193 (70%) were
female, and most (86%) were aged 24–64 years, with 12 (4%) aged <25 years and 26 (9%) >65 years. Their screening results are presented in Table 1.

Of the 22 participants screening positive for depression, four had a PHQ-9 indicating severe depression, four moderately severe, two moderate and 12 mild. All participants with severe depression wanted help. One-quarter (n = 69) scored positive for anxiety, with 14 having a GAD-7 score indicating generalised anxiety disorder, all of whom wanted help. Of the 12 participants aged <25 years, six (50%) screened positively for sexual health issues and all requested help.

**Patient acceptability and feasibility of AsiaCHAT**

The survey was completed by 244 (88%) of the participants. Half were Chinese, 48% Korean and five identified as ‘other Asian’. Table 2 shows that most found AsiaCHAT easy to use and felt comfortable completing it.

Responses to AsiaCHAT feasibility were mainly positive (Table 3). Over half liked completing it and one-quarter indicated that it helped them discuss concerns with their doctor. One participant noted it brought up a problem ‘I was not previously aware of’. Another said he would recommend AsiaCHAT to help new migrants solve their psychological issues, reduce their stress and to help family members become more positive.

A few participants indicated that they found some questions difficult to answer, ranging from 16 (6.5%) for the depression questions, 13 (5%) for anxiety, four (2%) for physical inactivity, to only one (0.4%) for smoking, drinking or gambling.

**Staff acceptability and feasibility of AsiaCHAT**

The following five themes emerged from the interviews with the Chinese and the Korean doctors, MAs, practice manager and the clinical director.

**Useful screening tool to identify mental health and lifestyle issues:**

The GPs were positive about AsiaCHAT, indicating that it helped to identify issues they might not know about:

‘Really helpful tool. Asian people usually quite shy and not willing to disclose things. By doing the screening we could disclose some underlying problems.’

‘I had a patient who came all the time, but never mentioned before that she had depression, but only found out that she was struggling with depression through using AsiaCHAT. She really

### Table 1. Positive screening results

<table>
<thead>
<tr>
<th>Domain</th>
<th>Positive result n (%)</th>
<th>Positive responses, wanted help</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No n (%)</td>
</tr>
<tr>
<td>Smoking</td>
<td>20 (7)</td>
<td>9 (45)</td>
</tr>
<tr>
<td>Drinking</td>
<td>31 (11)</td>
<td>29 (94)</td>
</tr>
<tr>
<td>Other drugs</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Gambling</td>
<td>1 (0.4)</td>
<td>1 (100)</td>
</tr>
<tr>
<td>Depression</td>
<td>22 (8)</td>
<td>8 (36)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>69 (25)</td>
<td>36 (52)</td>
</tr>
<tr>
<td>Physically inactive</td>
<td>127 (46)</td>
<td>80 (63)</td>
</tr>
</tbody>
</table>

### Table 2. Acceptability of AsiaCHAT* by patients

<table>
<thead>
<tr>
<th></th>
<th>1 Strongly Disagree</th>
<th>2 Disagree</th>
<th>Neither agree nor disagree</th>
<th>4 Agree</th>
<th>5 Strongly agree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy to use</td>
<td>0 (0)</td>
<td>5 (2)</td>
<td>21 (8)</td>
<td>43 (17)</td>
<td>176 (71)</td>
<td>4</td>
<td>0.73</td>
</tr>
<tr>
<td>Comfortable completing</td>
<td>0 (0)</td>
<td>1 (0.4)</td>
<td>26 (10)</td>
<td>42 (17)</td>
<td>176 (71)</td>
<td>4.6</td>
<td>0.69</td>
</tr>
<tr>
<td>Identified areas of support</td>
<td>15 (6)</td>
<td>24 (10)</td>
<td>95 (38)</td>
<td>50 (20)</td>
<td>61 (24)</td>
<td>3.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Wanted help</td>
<td>73 (30)</td>
<td>40 (16)</td>
<td>56 (23)</td>
<td>33 (13)</td>
<td>42 (17)</td>
<td>2.7</td>
<td>1.45</td>
</tr>
</tbody>
</table>

*Electronic screening and stepped-care support tool (eCHAT) to identify mental health and lifestyle issues among Asian patients.
appreciated that this tool gives her a chance to talk about it’

The MAs also described AsiaCHAT as ‘a very good tool’ for identifying issues that are otherwise missed. These issues have an effect on patients’ lives, but usually they do not feel comfortable talking about it.

‘I think this kind of programme is very good to pick up any problems. For us (Asians) we don’t normally talk about these problems to our doctors.’

‘Amongst Asian group they go to see their doctor for physical problems but not for mental health problems, they don’t know how to check if they have any mental health issues.’

‘I had one patient in his early 20s and he took so long to answer the questionnaire, and once I checked the questionnaire there were some red flags. I think he recently tried to hang himself and he had severe depression and anxiety. I think it was very good that he completed the questionnaire before seeing the doctor.’

The GPs reported that it facilitated difficult conversations and allowed patients to think about issues before their consultations:

‘Good use of the time while they are waiting for an appointment.’

Acceptability by Asian patients

All clinic staff said that AsiaCHAT was well accepted by their Asian patients. ‘No one complained about any of the questionnaires, I got very positive responses from the patient(s) I approached.’ Almost all found it very easy to use. Feedback indicated that completing the screening on the e-tablet was an easy and not an intimidating way of approaching mental health issues.

Barriers implementing AsiaCHAT

Clinic financial constraints were a key barrier to use. While it may ‘add enormous value’, the managers were concerned that positive responses could lead to longer consultations, which were unfunded: ‘It adds advantage to patient(s), but patients are not prepared to pay for it, and there is no other funding.’

Time constraint was another potential barrier. The GPs found that having the MAs administering it made it easy to use AsiaCHAT with their patients. However, they worried about possible lengthier consultations. Having two patients per session was manageable, but ‘we will struggle with time if we increase the numbers of patients per clinic.’ These concerns were set against a backdrop of many other government-mandated screening programmes taking up consultation time.

Suggested improvements for implementation

The doctors suggested that a follow-up pathway would be very beneficial in the long term for patients who identified issues, but did not ask for help:

‘You need someone like a lifestyle person or a well-being coordinator to follow up on these minor issues and it will be very beneficial for our patients.’

<table>
<thead>
<tr>
<th>Response</th>
<th>n (%)</th>
</tr>
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<tbody>
<tr>
<td>Will recommend its use</td>
<td>132 (53)</td>
</tr>
<tr>
<td>Liked completing</td>
<td>126 (51)</td>
</tr>
<tr>
<td>Helped to think change</td>
<td>94 (38)</td>
</tr>
<tr>
<td>Helped with issues identification</td>
<td>88 (36)</td>
</tr>
<tr>
<td>Felt safe</td>
<td>82 (33)</td>
</tr>
<tr>
<td>Helped inform my doctor re concerns</td>
<td>60 (24)</td>
</tr>
<tr>
<td>Brought up difficult conversations</td>
<td>60 (24)</td>
</tr>
<tr>
<td>Did not relate to me</td>
<td>24 (10)</td>
</tr>
<tr>
<td>Made plans to address concerns</td>
<td>18 (7)</td>
</tr>
<tr>
<td>Questions were difficult</td>
<td>17 (7)</td>
</tr>
<tr>
<td>Worried about privacy</td>
<td>11 (4)</td>
</tr>
<tr>
<td>Takes too long to complete</td>
<td>9 (4)</td>
</tr>
<tr>
<td>Questions too personal</td>
<td>4 (2)</td>
</tr>
<tr>
<td>Felt embarrassed</td>
<td>0</td>
</tr>
<tr>
<td>Felt being judged</td>
<td>0</td>
</tr>
<tr>
<td>Too difficult to use</td>
<td>0</td>
</tr>
</tbody>
</table>

*Electronic screening and stepped-care support tool (eCHAT) to identify mental health and lifestyle issues among Asian patients.

**Table 3. Patient views on feasibility of AsiaCHAT* use**
The MAs thought that some questions may need to be re-worded in the translated version, as the patients struggled to understand the meaning of the questions:

‘For example, do you want someone to help with exercise; they find it a bit strange - how someone is going to help them exercise? They take the question literally’.

They suggested translated versions of the self-help resource booklet. Patients book appointments on a Portal and having an option to do AsiaCHAT online with links to useful resources was suggested.

Increased knowledge and improved insight

The managers acknowledged that using AsiaCHAT contributed to the GPs' and MAs' knowledge and understanding of mental health issues and their management. The MAs reported that using AsiaCHAT increased their knowledge of mental health and improved their insight into their own mental well-being:

‘Myself as an Asian as well, and I didn’t care about my mental health issues either, it was really interesting that people have mental health issue and they hide it. I thought oh I do have some issues as well and I started to see my doctor as well after studying eCHAT questions. It was really good experience’.

They also identified that participating in the study contributed to the mental health knowledge and awareness of their patients. One patient appreciated the tool and said:

‘she has friends and friends of friends that suffer from depression like symptoms but can’t seek help, even though they have depression issues and anxieties but they don’t know where to go. She was very grateful that you guys are doing this work and she thought that this will be a great help’.

Discussion

One-quarter of the Asian participants in this study indicated they had anxiety, with half requesting help, and a further 8% screened positive for depression. Asians are at high risk of a missed diagnosis for these conditions compared to their European counterparts, and are also at a higher risk of mental distress. Asians living in Western countries are vulnerable to increased psychological distress due to separation from family and friends, employment and financial stressors, social adjustment and settling into a new culture, and early symptoms of anxiety double the risk of developing depressive symptoms. Asian patients often present to secondary mental health services at a late stage or in acute crisis. Similarly, acculturation and pressures to succeed in their new country can make Asian immigrants more vulnerable to depression. Depression in Asians, particularly Chinese, may present in somatic form, such as poor appetite and indigestion. Despite this limited insight into their psychological distress, many NZ GPs may fail to screen for mental health issues when Asian patients present with physical symptoms. AsiaCHAT could assist with early detection and management of both anxiety and depression.

Asian patients present more readily to their GPs than to other secondary health services, and are more comfortable seeking help from their GP than from a mental health professional. Culturally competent health services need to attend to cultural awareness, linguistic competency and an understanding of the health beliefs of the patients. AsiaCHAT addresses these needs.
gave a limited sample size, especially when assessing lower prevalence conditions such as problem gambling. Although asked to complete report sheets on interventions offered, GPs had no time to do this, so no data were available to assess resources needed to improve access to services.

**Implications**

AsiaCHAT provides stepped-care resources for every module, including self-management, provider interventions (brief interventions or medication) and referral to local agencies and resources. Use of AsiaCHAT in clinical practice could enable earlier detection of mental health issues and intervention in Asian patients, with the flow-on effect of reducing the burden on secondary services by minimising presentations to secondary services of Asian patients in acute crisis. Provision of accessible counselling services for Asian people could also assist. AsiaCHAT reduces the language barrier, and its routine use could reduce stigmatisation about mental illness. While the sample in this study was small, 50% of the youth who were screened indicated sexual health issues (such as risk of pregnancy or sexual transmitted disease) and requested help, indicating the potential value of AsiaCHAT for this group.

NZ health policy is focused on reducing health inequalities and improving the health status of vulnerable communities and access to health services. The NZ Health Strategy indicates that we should do better for the population groups who do not enjoy the same health as New Zealanders as a whole, including some Asian groups and migrants. It recognises that Asian populations are growing the fastest and now represent almost one in four people living in Auckland.

The Asian chapter of the WDHB 5-year plan presented a range of actions to eliminate barriers and improve responsiveness to mental health services for Asian communities across the continuum of care, including its culturally and linguistically diverse awareness course, and the Asian services it provides. AsiaCHAT could work alongside these other initiatives and potentially fill the gap of early detection of mental health issues amongst Asians, improve early access to secondary services. Early detection and management of smoking and other substance misuse, mental health problems, sexual health issues and physical inactivity can all help reduce the burden of long-term disease and unnecessary utilisation of secondary services.

**Competing interests**

The authors declare no competing interests.

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