BACKGROUND
Research has shown that low literacy rates in patients has increased the risk of poor compliance to drug therapy. Pictographic instructions has been shown to improve communication with patients having low literacy and/or language barriers. The Military and Emergency Pharmacy Section of the International Pharmaceutical Federation (FIP) has been working on using pictograms to label drugs.

OBJECTIVES
To design and evaluate culture-specific pictographic instructions for use within a multicultural practice setting.

METHOD 1: International Pharmacy Student Focus Groups (May 2006)
In collaboration with the International Federation of Pharmacy Students, culture-specific pictograms were created by a graphic designer and submitted to the students from various geographical regions for their approval. These original choices were selected by the pharmacist focus groups who identified them as being culture-sensitive. A total of 8 pictograms were originally submitted to the students under 7 categories.

RESULTS

Q1: Take medication with meal

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Continent of residence</th>
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<tbody>
<tr>
<td>1</td>
<td>North America</td>
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<td>Eastern Mediterranean</td>
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<td>8</td>
<td>Western Pacific</td>
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</table>

Results:

- South America: 65 (35.3), 5 (35.3), 1 (10.0), 1 (10.0)
- Europe: 24 (45.3), 3 (17.6), 7 (13.2), 7 (13.2)
- Africa Region: 9 (52.4), 1 (5.9), 1 (5.9), 1 (5.9)
- Oceanica: 3 (5.7), 1 (5.7), 0 (0.0), 0 (0.0)
- Eastern Mediterranean: 1 (4.8), 1 (4.8), 0 (0.0), 0 (0.0)
- Western Pacific: 1 (1.0), 0 (0.0), 0 (0.0), 0 (0.0)

p=0.001

Q2: Take medication with meal (after eating)

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<td>Western Pacific</td>
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</tbody>
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Results:

- South America: 61 (59.8), 20 (19.6), 4 (4.5), 17 (16.7)
- Europe: 38 (71.7), 24 (45.3), 3 (5.7), 20 (37.7)
- Africa Region: 1 (4.8), 6 (5.7), 0 (0.0), 1 (4.8)
- Oceanica: 1 (5.9), 0 (0.0), 0 (0.0), 1 (5.9)
- Eastern Mediterranean: 27 (15.4), 6 (5.7), 0 (0.0), 22 (12.0)
- Western Pacific: 210 (22.1), 0 (0.0), 0 (0.0), 5 (2.6)

p=0.001

Q3: Take medication at night

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<td>8</td>
<td>Western Pacific</td>
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</tbody>
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Results:

- South America: 47 (30.4), 10 (32.3), 7 (25.0), 30 (10.3)
- Europe: 46 (52.4), 6 (7.1), 1 (1.1), 13 (15.7)
- Africa Region: 39 (68.4), 11 (19.2), 1 (1.7), 14 (24.6)
- Oceanica: 1 (5.9), 0 (0.0), 0 (0.0), 1 (5.9)
- Eastern Mediterranean: 13 (7.6), 46 (25.8), 46 (25.8), 46 (25.8)
- Western Pacific: 1 (1.0), 0 (0.0), 0 (0.0), 1 (1.0)

p=0.001

Q4: Take medication at night

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Results:

- South America: 44 (30.4), 10 (10.0), 7 (7.0), 30 (10.3)
- Europe: 46 (52.4), 6 (7.1), 1 (1.1), 13 (15.7)
- Africa Region: 39 (68.4), 11 (19.2), 1 (1.7), 14 (24.6)
- Oceanica: 1 (5.9), 0 (0.0), 0 (0.0), 1 (5.9)
- Eastern Mediterranean: 13 (7.6), 46 (25.8), 46 (25.8), 46 (25.8)
- Western Pacific: 1 (1.0), 0 (0.0), 0 (0.0), 1 (1.0)

p=0.001

Q7: Take medication in the evening

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Results:

- South America: 47 (30.4), 10 (32.3), 7 (25.0), 30 (10.3)
- Europe: 46 (52.4), 6 (7.1), 1 (1.1), 13 (15.7)
- Africa Region: 39 (68.4), 11 (19.2), 1 (1.7), 14 (24.6)
- Oceanica: 1 (5.9), 0 (0.0), 0 (0.0), 1 (5.9)
- Eastern Mediterranean: 13 (7.6), 46 (25.8), 46 (25.8), 46 (25.8)
- Western Pacific: 1 (1.0), 0 (0.0), 0 (0.0), 1 (1.0)

p=0.001

Q8: Take medication at night

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Results:

- South America: 44 (30.4), 10 (10.0), 7 (7.0), 30 (10.3)
- Europe: 46 (52.4), 6 (7.1), 1 (1.1), 13 (15.7)
- Africa Region: 39 (68.4), 11 (19.2), 1 (1.7), 14 (24.6)
- Oceanica: 1 (5.9), 0 (0.0), 0 (0.0), 1 (5.9)
- Eastern Mediterranean: 13 (7.6), 46 (25.8), 46 (25.8), 46 (25.8)
- Western Pacific: 1 (1.0), 0 (0.0), 0 (0.0), 1 (1.0)

p=0.001

CONCLUSION
Both these projects were successful for identifying and validating culturally-specific pictograms that may be used to increase comprehension for drug therapy. An online, easily accessible pictogram program has been created adding all the culture-specific pictograms that have been created based on the focus groups and online survey results.

REFERENCE

1. Children’s Hospital of Eastern Ontario (CHEO), 401 Smyth Rd, Ottawa, ON K1H 8L1; 2004 to 2008 President, Military and Emergency Pharmacy Section of the International Pharmaceutical Federation, 3 New Zealand Defence Forces, 4 Canadian Armed Forces

http://www.fip.org/files/fip/MEPS/Pictogram_Building_v3.doc

[Image 66x484 to 474x930]