Supplementary Online Content


**eTable 1.** Study Quality Assessment (as per Cochrane Guidelines)

**eTable 2.** Studies Excluded From Review as Not Meeting the Inclusion Criteria

**eFigure 1.** Meta-analysis of the Effect of Text Message Intervention on Medication Adherence Incorporating Studies Reporting Outcomes by Intention-to-Treat Analysis

**eFigure 2.** Meta-analysis of the Effect of Text Message Intervention on Medication Adherence Incorporating Studies Reporting Outcomes by per-Protocol Analysis

**eFigure 3.** Funnel Plot of Standard Error by Log Odds Ratio Showing Study Dispersion

**eFigure 4.** Study Quality Assessment

This supplementary material has been provided by the authors to give readers additional information about their work.
**eTable 1. Study Quality Assessment (as per Cochrane Guidelines)**

(‘+’ represents low risk of bias, ‘–’ represents high risk of bias, ‘?’ represents unclear risk of bias)

<table>
<thead>
<tr>
<th>Study</th>
<th>Random Sequence Generation</th>
<th>Allocation concealment</th>
<th>Blinding participants / personnel*</th>
<th>Blinding of outcome assessment</th>
<th>Incomplete outcome data (Data loss %)</th>
<th>Selective reporting</th>
<th>Other bias</th>
<th>ITT</th>
<th>Overall study quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contreras et al</td>
<td>+</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>- (7%)</td>
<td>+</td>
<td>-</td>
<td>@</td>
<td>Low</td>
</tr>
<tr>
<td>Da Costa et al</td>
<td>+</td>
<td>?</td>
<td>-</td>
<td>+</td>
<td>- (28%)</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>High</td>
</tr>
<tr>
<td>Hardy et al</td>
<td>+</td>
<td>?</td>
<td>-</td>
<td>+</td>
<td>- (17%)</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>Low</td>
</tr>
<tr>
<td>Khonsari et al</td>
<td>?</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>+ (3%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>Low</td>
</tr>
<tr>
<td>Lester et al</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+ (39%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>High</td>
</tr>
<tr>
<td>Lua et al</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>?</td>
<td>+ (5.5%)</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>High</td>
</tr>
<tr>
<td>Lv et al</td>
<td>+</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>- (47%)</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>Low</td>
</tr>
<tr>
<td>Maduka et al</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+ (10%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>High</td>
</tr>
<tr>
<td>Mbuagba w et al</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+ (18%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>High</td>
</tr>
<tr>
<td>Park et al</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>?</td>
<td>+ (7%)</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>High</td>
</tr>
<tr>
<td>Pop-Eleches et al</td>
<td>+</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>+ (16%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>High</td>
</tr>
<tr>
<td>Quilici et al</td>
<td>?</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>+ (4%)</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>Low</td>
</tr>
<tr>
<td>Strandbygaard et al</td>
<td>+</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>- (15%)</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>Low</td>
</tr>
<tr>
<td>Vervloet et al</td>
<td>?</td>
<td>+</td>
<td>-</td>
<td>?</td>
<td>+ (14%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>High</td>
</tr>
<tr>
<td>Wald et al</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>?</td>
<td>+ (0.5%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>High</td>
</tr>
<tr>
<td>------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>------</td>
</tr>
<tr>
<td>Wang et al</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>?</td>
<td>+ (22%)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>High</td>
</tr>
</tbody>
</table>

@ - As per the study criteria – after inclusion patients were withdrawn if 1) inadequate therapeutic response requiring increase more than 20% follow up visits or 2) non-compliance with follow up. This may lead to inclusion of patients who are drug-responders and have good baseline-compliance.

Study quality assessed by two reviewers - JT and RK
Agreement on initial individual assessments – 90%
Agreement after review and discussions – 100%
Overall 10 studies (60%) were thought to be of high quality and were included in sensitivity analysis.
**eTable 2. Studies Excluded From Review as Not Meeting the Inclusion Criteria**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>First author (year published)</th>
<th>Journal / Publication medium</th>
<th>Disease</th>
<th>Reason for exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arora S 2012</td>
<td>Diab Technol Thera</td>
<td>DM</td>
<td>Not eligible study design No numeric data on outcomes of interest</td>
</tr>
<tr>
<td>2</td>
<td>Arora S 2014</td>
<td>Ann Emerg Med</td>
<td>DM</td>
<td>No numeric data on outcomes of interest</td>
</tr>
<tr>
<td>3</td>
<td>Boker A 2012</td>
<td>J Am Acad Dermatol</td>
<td>Acne</td>
<td>Not appropriate population</td>
</tr>
<tr>
<td>4</td>
<td>Broomhead S 2012</td>
<td>Telemed and eHealth</td>
<td>TB</td>
<td>No numeric data on outcomes of interest</td>
</tr>
<tr>
<td>5</td>
<td>Castano PM 2012</td>
<td>Obstet Gynecol</td>
<td>Contraception</td>
<td>Not a chronic disease</td>
</tr>
<tr>
<td>6</td>
<td>Deng X 2014</td>
<td>Patient Prefer Adherence</td>
<td>Upper GIScope preparation</td>
<td>Not a chronic disease</td>
</tr>
<tr>
<td>7</td>
<td>Dick JJ 2012</td>
<td>J Diab Sci Techno</td>
<td>DM</td>
<td>Not eligible study design</td>
</tr>
<tr>
<td>8</td>
<td>Dowshen N 2012</td>
<td>J Med Internet Res</td>
<td>HIV</td>
<td>Not eligible study design</td>
</tr>
<tr>
<td>9</td>
<td>Foreman KF 2012</td>
<td>Clin Ther</td>
<td>Pharmacy data on chronic medications</td>
<td>Not eligible study design</td>
</tr>
<tr>
<td>10</td>
<td>Franklin VL 2006</td>
<td>Diabet Med</td>
<td>DM</td>
<td>Not appropriate population</td>
</tr>
<tr>
<td>11</td>
<td>Holtz B 2009</td>
<td>Telemed Jou and e-Health</td>
<td>Asthma</td>
<td>No numeric data on outcomes of interest</td>
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<tr>
<td>12</td>
<td>Hou M 2010</td>
<td>Obstet Gynecol</td>
<td>Contraception</td>
<td>Not a chronic disease</td>
</tr>
<tr>
<td>13</td>
<td>Huang HL 2013</td>
<td>BMC Med Inform Decis Mak</td>
<td>Multiple diseases</td>
<td>Not appropriate population</td>
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<tr>
<td>14</td>
<td>Irribarren S 2013</td>
<td>Tuberc Res Treat</td>
<td>TB</td>
<td>No numeric data on outcomes of interest</td>
</tr>
<tr>
<td>15</td>
<td>Keranen T 2013</td>
<td>Telemedicine and e Health</td>
<td>Parkinsons</td>
<td>Not eligible study design</td>
</tr>
<tr>
<td>16</td>
<td>Lewis MA 2013</td>
<td>Health Psycho</td>
<td>HIV</td>
<td>Not eligible study design</td>
</tr>
<tr>
<td>17</td>
<td>Macdonell K 2013</td>
<td>Jou Asthma</td>
<td>Asthma</td>
<td>Not eligible study design</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>2010</td>
<td>Paed Pulmonology</td>
<td>Cystic fibrosis</td>
</tr>
<tr>
<td>---</td>
<td>-------</td>
<td>------</td>
<td>------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Miloh T</td>
<td>2009</td>
<td>Paediatrics</td>
<td>Immunosuppression post transplant</td>
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<tr>
<td>20</td>
<td>Ollivier L</td>
<td>2009</td>
<td>Malaria Journal</td>
<td>Malaria</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td>Telemedicine and e-Health</td>
<td>Asthma</td>
</tr>
<tr>
<td>22</td>
<td>Petrie KJ</td>
<td>2011</td>
<td>Brit J of heal Psych</td>
<td>Asthma</td>
</tr>
<tr>
<td>23</td>
<td>Pena-Robichaux V</td>
<td>2010</td>
<td>Dermatol Res Prac</td>
<td>Atopic Dermatitis</td>
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<td>24</td>
<td>Rodrigues R</td>
<td>2012</td>
<td>Plos One</td>
<td>HIV</td>
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<tr>
<td>25</td>
<td>Shet A</td>
<td>2014</td>
<td>BMJ</td>
<td>HIV</td>
</tr>
<tr>
<td>26</td>
<td>Shetty AS</td>
<td>2011</td>
<td>J Assoc Physicians India</td>
<td>DM</td>
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<tr>
<td>27</td>
<td>Ting V</td>
<td>2012</td>
<td>J Rheumatol</td>
<td>Systemic Lupus Erythematosis</td>
</tr>
<tr>
<td>28</td>
<td>Zolfhagari M</td>
<td>2012</td>
<td>J Diabetes Metab Disord</td>
<td>DM</td>
</tr>
</tbody>
</table>

DM- Diabetes Mellitus, HIV- Human immunodeficiency virus syndrome, TB- Tuberculosis.
REFERENCES (EXCLUDED STUDIES):


**eFigure 1.** Meta-analysis of the Effect of Text Message Intervention on Medication Adherence Incorporating Studies Reporting Outcomes by Intention-to-Treat Analysis

<table>
<thead>
<tr>
<th>Study name</th>
<th>Statistics for each study</th>
<th>Odds ratio and 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds ratio</td>
<td>Lower limit</td>
</tr>
<tr>
<td>Khonseri et al.</td>
<td>12.273</td>
<td>3.405</td>
</tr>
<tr>
<td>Lester et al.</td>
<td>1.612</td>
<td>1.144</td>
</tr>
<tr>
<td>Maduka et al.</td>
<td>2.644</td>
<td>1.135</td>
</tr>
<tr>
<td>Mbuagbaw et al.</td>
<td>1.026</td>
<td>0.519</td>
</tr>
<tr>
<td>Pop-Eleches et al.</td>
<td>1.330</td>
<td>0.882</td>
</tr>
<tr>
<td>Vervelet et al.</td>
<td>2.959</td>
<td>1.448</td>
</tr>
<tr>
<td>Wald et al.</td>
<td>3.267</td>
<td>1.686</td>
</tr>
<tr>
<td>Wang et al.</td>
<td>3.857</td>
<td>1.180</td>
</tr>
</tbody>
</table>

Note – We included Wald et al under intention to treat analysis as there was <1% data loss (1 Participant in each intervention and control and is unlikely to have affected outcomes for sample size of 303 patients).
**Figure 2.** Meta-analysis of the Effect of Text Message Intervention on Medication Adherence Incorporating Studies Reporting Outcomes by per-Protocol Analysis

<table>
<thead>
<tr>
<th>Study name</th>
<th>Odds ratio</th>
<th>Lower limit</th>
<th>Upper limit</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contreras et al</td>
<td>1.508</td>
<td>0.631</td>
<td>3.605</td>
<td>0.355</td>
</tr>
<tr>
<td>DaCosta et al</td>
<td>2.571</td>
<td>0.371</td>
<td>17.831</td>
<td>0.339</td>
</tr>
<tr>
<td>Hardy et al</td>
<td>21.131</td>
<td>3.161</td>
<td>141.237</td>
<td>0.002</td>
</tr>
<tr>
<td>Lester et al</td>
<td>0.973</td>
<td>0.456</td>
<td>2.075</td>
<td>0.944</td>
</tr>
<tr>
<td>Lv et al</td>
<td>2.074</td>
<td>0.688</td>
<td>6.251</td>
<td>0.195</td>
</tr>
<tr>
<td>Lua et al</td>
<td>0.985</td>
<td>0.535</td>
<td>1.812</td>
<td>0.960</td>
</tr>
<tr>
<td>Park et al</td>
<td>0.610</td>
<td>0.235</td>
<td>1.585</td>
<td>0.311</td>
</tr>
<tr>
<td>Pop-Eleches et al</td>
<td>1.495</td>
<td>0.961</td>
<td>2.324</td>
<td>0.074</td>
</tr>
<tr>
<td>Quilici et al</td>
<td>2.705</td>
<td>1.109</td>
<td>6.596</td>
<td>0.029</td>
</tr>
<tr>
<td>Strandbygaard et al</td>
<td>6.018</td>
<td>1.368</td>
<td>26.466</td>
<td>0.018</td>
</tr>
<tr>
<td></td>
<td>1.651</td>
<td>1.077</td>
<td>2.531</td>
<td>0.021</td>
</tr>
</tbody>
</table>

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eFigure 3. Funnel Plot of Standard Error by Log Odds Ratio Showing Study Dispersion
*Due to nature of the intervention blinding of the participants was not possible.