Is there evidence that walking groups have health benefits? A systematic review and meta-analysis

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Background
➢ Walking groups are a popular physical activity intervention.
➢ Walking groups increase physical activity but wider health benefits not known.

Aim
➢ To quantify the wider benefits to health from outdoor walking groups.

Methods
➢ Searched 7 databases, AMED, EMBASE, MEDLINE (R),PsycINFO, SportDiscus and Cinahl. Also grey literature.
➢ No date restriction.
➢ Nine point risk of bias tool with binary scale used for all studies.
➢ Data extraction sheet developed.

Table 1: Inclusion and exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>Interventions where people walk as part of a defined walking group intervention</td>
<td>Interventions that do not involve a walking group intervention</td>
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<tr>
<td>Studies where the walking is a group activity</td>
<td>Studies that focus on walking therapy</td>
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<tr>
<td>Studies where the outcome is measured in group settings</td>
<td>Studies with a mixed-method intervention (e.g. walking with</td>
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<tr>
<td>Analyses of the outcomes of walking</td>
<td>written advice or group discussions</td>
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<tr>
<td>Studies where the participants were walking outdoors</td>
<td>Studies where the participants were walking indoors</td>
</tr>
<tr>
<td>Studies where the participants were walking outdoors in natural settings</td>
<td>Studies where the participants were walking indoors in</td>
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</table>

Results
➢ 42 studies in 14 different locations, predominantly USA.
➢ Total of 1,843 participants.
➢ 74,000 hours of participant walking time.
➢ Participants had a broad range of health conditions e.g. arthritis, overweight, dementia, diabetes.
➢ Interventions varied in intensity and volume.
➢ Statistically significant improvements in systolic and diastolic blood pressure, resting heart rate, body fat, body mass index, total cholesterol, VO₂max, quality of life for physical functioning, 6 minute walk time, and depression.
➢ Sub-analysis of those diagnosed with depression and BMI ≥25 strengthened the results.
➢ Results of sub-analysis of those with Type II diabetes not significant for HbA1C and fasting glucose.
➢ Good rates of adherence and virtually no adverse effects.

Conclusion and discussion
➢ Outdoor walking groups have wide-ranging health benefits including reducing blood pressure, body fat, total cholesterol and risk of depression.
➢ Outdoor walking groups appear to be an acceptable intervention to participants, with high levels of adherence, low levels of attrition and virtually no side effects.
➢ Provides clinicians and commissioners with evidence of an effective option to recommend to patients.