

Supplementary Tables

Table 1 Characteristics of the studies included in the synthesis of evaluations (review 3)

Author and year	Self-care behaviour	Whose behaviour	Context	Intervention on Provider	Intervention	Intervention behaviour change techniques (BCTs)	Control condition	Effectiveness ¹	Effect sizes
Everitt et al. (2006)	Management of conjunctivitis	Patients	General practice	GP	Education (leaflet)	Instruction on how to perform the behaviour, Information about antecedents, Information about health consequences	No leaflet ²	Symptoms [↓ _{NS}]	Severity of symptoms increased in the education group vs. control (mean difference adjusted for antibiotic group and eye swab = 0.1, 95% CI -0.2 to 0.3, p = 0.6, NS).
					Prescribing strategy (delayed antibiotics)	Behavioural substitution, Non-specific incentive	No antibiotics	GP: one effect in a favourable direction [↑+]; Symptoms : one effect in a	GP re-attendance was less in the delayed condition, vs. no antibiotics (odds ratio = 0.3, 95% CI 0.1 to 1.0)

¹ Outcomes: consultation at GP, out-of-hours GP, or A&E; or symptoms. Effects: → = no difference, ↑+ = statistically significant favourable effect, ↑_{NS} = favourable effect that did not obtain statistical significance, ↓+ = statistically significant effect, but unfavourable, or ↓_{NS} = the effect was neither beneficial nor statistically significant.

² Adjusted for antibiotic group and eye swab.

								favourable direction [↑ _{NS}]	Symptom reduction was greater in the delayed antibiotic prescribing vs. no antibiotics (mean difference = -0.1, 95% CI -0.4 to 0.2, p=0.4)
					Prescribing strategy (No antibiotics)	Prescribing strategy Behavioural substitution	Immediate antibiotics	GP: one effect in a favourable direction [↑ _{NS}] Symptoms : one effect in a favourable direction [↓ _{NS}]	Re-attendance was less in the no antibiotics condition vs. in the immediate condition (odds ratio = 0.7, 95% CI 0.3 to 1.6). Symptom reduction was less in the no antibiotics condition vs. in the immediate condition (mean difference = -0.2, 95% CI -0.5

									to 0.1 p=0.2, adjusted for patient information leaflet and eye swab).
Heaney et al. (2001)	Management of minor ailments	Patients	Home	Postal information	Education (information booklet on minor illness)	Instruction on how to perform the behaviour, Information about antecedents, Information about health consequences	Usual care	GP sample: two effects in an unfavourable direction [$\downarrow\downarrow_{NS}$] and one effect in a favourable direction [$\uparrow+$] Out-of-hours sample: two effects in an unfavourable direction [$\downarrow\downarrow_{NS}$]; one effect in a favourable direction [$\uparrow+$]	Among the GP sample, GP attendance was greater among education group vs. control (mean difference adjusted for baseline = 0.03, 95% CI -0.17 to 0.10 minor ailments only, and 0.14, 95% CI -0.18 to 0.45, overall; Out-of-hours attendance was lower in the education group (vs. control) (mean difference adjusted for baseline = -0.02, 95% CI -0.06 to 0.01)

								<p>GP: two effects in a favourable direction $\{ \uparrow \uparrow \uparrow \}_{NS}$</p>	<p>Among the Out-of-hours sample GP attendance was greater in the education group vs. control (mean difference adjusted for baseline = 0.02, 95% CI -0.25 to 0.29 minor ailments only, and 0.22, 95% CI -0.31 to 0.75, overall; Out-of-hours attendance was lower in the education group (vs. control) (mean difference adjusted for baseline = -0.03, 95% CI -0.20 to 0.14)</p>
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Francis et al. (2009)	Management of respiratory tract infections in children	Clinicians and parents in care of children	General practice	GP	Education (booklet on respiratory tract infections)	Credible source, Instruction on how to perform the behaviour, Information about antecedents, Information about health consequences, social support (unspecified), Problem solving	Usual care	GP: one effect in a favourable direction [\uparrow_{NS}]	Greater pain reduction in education group vs. control [mean difference = -3.8, 95% CI -7.7 to 0.1, NS].
Little et al. (2001a)	Management of back pain	Patients	General practice	GP	Education (booklet on back pain endorsed by GP and exercise) ³	Booklet group: Instruction on how to perform the behaviour, Behavioural experiments, Problem solving, Credible source,	Usual care	Symptoms: one effect in a favourable direction [\uparrow_{NS}]	Greater pain reduction in education group vs. control [mean difference = -3.8, 95% CI -7.7 to 0.1].

³ Data for combined booklet and exercise group.

						Information about health consequences, Action planning			
Little et al. (2001b)	Management of minor ailments	Patients	Home	Postal information	Education (What should I do?) ⁴	Instruction on how to perform the behaviour, Information about antecedents, Information about health consequences	Patients received a one page leaflet giving the surgery times and how to contact the doctor in an emergency	GP: two effects in a favourable direction [\uparrow ; \uparrow _{NS}]	Fewer patients in the education group attended the GP vs. control (odds ratios adjusted for baseline attendance and clustering at a practice level = 0.81, 95% CI 0.67 to 0.99) for minor ailments and for any condition = 0.92, 95% CI 0.72 to 1.16).

⁴ Summary card group not reported here.

Moore et al. (2009)	Management of lower respiratory tract infections	Patients	General practice	GP	Education (leaflet)	Instruction on how to perform the behaviour, Information about antecedents, Information about health consequences, Credible source, Social support (unspecified)	No leaflet	GP: one effect in a unfavourable direction [\downarrow_{NS}] ⁵	Higher attendance rates for coughs among the education group vs. control (adjusted rate ratio = 1.27, 95% CI 0.86 to 1.87, p = 0.229, NS).
					Prescribing strategy (delayed antibiotics)	Behavioural substitution, Non-specific incentive	Immediate antibiotics	GP: one effect in a favourable direction [$\uparrow+$] ⁶	Greater reduction in GP consultations in the delayed vs. immediate antibiotic strategy (adjusted incident rate ratio = 0.22, 95% CI 0.10 to 0.49, p<0.001).

⁵ Adjusted for past antibiotic exposure.

⁶ Adjusted for past antibiotic exposure and education

					Prescribing strategy No antibiotics	Behavioural substitution	Immediate antibiotics	GP: one effect in a favourable direction [\uparrow_{NS}] ⁷	Immediate antibiotics led to more GP consultations vs. no antibiotics (adjusted incident rate ratio = 0.66, 95% CI 0.30 to 1.44, p = 0.295, NS)
Platts et al. (2005)	Management of minor ailments	Patients	General practice	GP or practice nurse	Education (Healthwise Handbook) ⁸	Instruction on how to perform the behaviour, Information about antecedents, Information about health consequences	Usual care	GP: three effects in a favourable direction [$\uparrow\uparrow\uparrow$] ⁹ ; three in an unfavourable direction [$\downarrow\downarrow\downarrow$]	<p>Among males aged 16-34 and 60+ the annual mean GP consultations (AMCRs) were lower in the education group vs. control (16 to 34 = 2.89 vs. 3.10, NS; 60+ = 5.55 vs. 5.73)</p> <p>Among females aged 60+ AMCRs were lower in the</p>

⁷ Adjusted for past antibiotic exposure and education

⁸ NHSd health booklet not reported here

⁹ Statistical tests not reported for comparisons between healthwise handbook and usual care

									<p>education group (6.33) vs. control (7.41)</p> <p>Among females aged 16 to 34, AMCRs were higher in education group (5.30) vs. control (4.96)</p> <p>Among men and women aged 35 to 59 AMCRs were higher in the education group (4.24 for males and 5.40 for females) vs. control (4.11 for males and 5.06 for females)</p>
Robbins et al. (2003)	Management of minor ailments in children	Parents in care of children	Home	Research nurse	Education (booklet and visit from research nurse)	Instruction on how to perform the behaviour, Information about antecedents, Information about health	Usual care	GP: one effect showing no difference [→]; Out-of-hours GP: one effect showing no	No differences in consultation rate: GP, median = 2 for both education and control, IQR = 1, 4 GP, and 0, 4 control; out of

						consequences, Credible source		difference [→]	hours GP, median = 0 for both groups, IQR = 0, 1 intervention, and 0, 1.5 control.
Roberts et al. (2002)	Management of lower back pain	Patients	General practice	GP	Education (Back Home Leaflet endorsed by GP)	Instruction on how to perform the behaviour, Behavioural experiments, Problem solving, Credible source, Information about health consequences	Usual care	Symptoms : one effect in a unfavourable direction [↓ _{NS}]	Pain increased among education group vs. control (mean difference = 2.9, 95% CI -4.2 to 10.0, p = 0.363, NS)
Williams et al. (2006)	Management of middle-ear disease (acute otitis media/glue ear)	Patients	General practice	GP	Prescribing strategy : No antibiotics	Pharmacological support	Immediate antibiotics	GP : one effect in a favourable direction [↑+] ¹⁰ ; one effect in a unfavourable direction	No antibiotics reduced the risk of re-attendance for Acute otitis media vs. immediate antibiotics (hazard ratio = 1.09, 95% CI

¹⁰ Acute otitis media sample

								le direction [↓+]¹¹	1.07 to 1.10) and increased the risk of re-attendance for glue ear vs. immediate antibiotics (hazard ratio = 0.92, 95% CI 0.88 to 0.96) adjusting for age, sex, multiple deprivation index, ear, nose and throat referral, and high prescribing practice.
Yardley et al. (2010)	Management of minor ailments	University students	Online	Computer-generated advice (based on a complex algorithm)	Education (interactive website)	Instruction on how to perform the behaviour, Information about antecedents, Information	Static webpage	GP: one effect in a favourable direction [↑NS]	Online self-management advice resulted in fewer consultations than those in the control group (11 vs 21

¹¹ Glue ear sample

						about health consequences, Vicarious consequences, Credible source			participants, $p = .22$).
Services									
Chalder et al. (2003)	Management of minor ailments	Patients	10 walk-in centres in England	Nurse led	Walk-in centre	n/a	A town of similar size, in the same region, but as distant as possible from any existing walk-in centre.	GP: one effect in a favourable direction [\uparrow_{NS}] Out-of-hours GP: one effect in an unfavourable direction [\downarrow_{NS}] A&E: one effect in a favourable direction [\uparrow_{NS}]	Fewer <i>GP</i> attendances in intervention vs control, (19.8 per 1,000 patients fewer, 95% CI -53.3 to 13.8). Control practices had 0.38 fewer <i>monthly</i> Out-of-hours GP attendances per 1,000 patients, 95% CI -0.26 to 1.02). Fewer A&E attendances in intervention vs. control group (difference in change per

									month between groups = -175 per 1,000 patients, 95% CI -387 to 36, p=0.1)
Hsu et al. (2003)	Management of minor ailments	Patients	Loughborough, England	Nurse led	Walk-in centre	n/a	Market Harborough (control town)	<p>GP: one effect in a favourable direction [\uparrow_{NS}]</p> <p>Out-of-hours GP: one effect in an unfavourable direction [\downarrow_{NS}]</p> <p>A&E: one effect in an unfavourable direction [$\downarrow+$]</p>	<p>-0.02 fewer <i>daily</i> emergency GP consultations per 1,000 patients in intervention vs control, 95% CI -0.75 to 0.71, in comparison with intervention sites, control practices had 0.07 fewer <i>daily</i> out of-hours consultations per 1,000 patients, 95% CI -0.06 to 0.19,</p> <p>10% increase in attendance rates at A&E in towns</p>

									where NHS walk-in centres had been introduced, compared with control towns (adjusted rate ratio 1.10, 95% CI 1.00 to 1.21).
Salisbury et al. (2007)	Management of minor ailments	Patients	Eight hospitals with co-located EDs and walk-in centres in England	Nurse led	Walk-in centre	n/a	Eight matched EDs without walk-in centres	GP: one effect in an unfavourable direction [\downarrow NS] A&E: two effects in an unfavourable direction [$\downarrow\downarrow$ NS]	re-consultations higher among participants in the intervention (86, 60.5%) than in the control (96, 56.3%; $p = 0.72$).
Chapman et al. (2002)	Management of minor ailments	Patients	Amount of NHS Direct cover in UK (full, part, or none) during the winter of 1999-2000	Not reported	Telephone triage (NHS Direct)	n/a	No cover	GP: one effect in a favourable direction [\uparrow]; one effect with no difference in size [\rightarrow]	no beneficial effects on the rates of respiratory GP consultations in England and Wales, across groups with different levels of NHS Direct

									coverage (statistics and effect sizes not reported).
Richards et al. (2002)	Management of minor ailments	Patients	Three primary care sites in York, England	Nurse led	Telephone triage	n/a	Standard management	<p>GP: one effect in an unfavourable direction [↓+]</p> <p>Out-of-hours GP: one effect in an unfavourable direction [↓+]</p> <p>A&E: one effect in an unfavourable direction [↓+]</p>	<p>nurse-led triage system returned for more practice-based care, (mean difference = 0.32, 95% CI 0.22 to 0.41, p=0.001) and out-of-hours practice care (mean difference = 0.04, 95% CI 0.01 to 0.07, p=0.005) than those in routine GP care</p> <p>nurse-led practice-based telephone triage system used more emergency care one month after the index consultation,</p>

									compared with those receiving routine GP care (mean difference: 0.023, 95% CI 0.015 to 0.032, $p<0.001$).
Turner et al. (2013)	Management of minor ailments	Patients	Durham and Darlington, Nottingham Luton and Lincolnshire, England	Non-clinical call handlers with clinical support from nurse advisors	Telephone triage (NHS 111)	n/a	Matched controls (geographical)	Out-of-hours GP: one effect in an unfavourable direction [\downarrow_{NS}] A&E: one effect in a favourable direction [\uparrow_{NS}]	Greater out of hours GP attendances among NHS 111 pilot sites, vs. control sites (2.5% extra, 95% CI -3.5 to 8.5, NS) Fewer A&E attendances per month in NHS 111 pilot sites vs. control sites (-0.1%, 95% CI -3.8 to 3.7, NS)
Butler et al. (2001)	Management of minor ailments	Patients	General practice in Cardiff, UK	Nurse led	Practice nurse	n/a	GP in same practice	GP: one effect in an unfavourable direction [\downarrow_{NS}]	Greater re-consultation in the nurse (16.9%) vs. GP (10%) group ($p=0.91$).

Cox and Jones (2000)	Management of minor ailments	Patients	General practice in semi-rural area, England	Nurse led	Practice nurse	n/a	Consulting GP in same practice	<p>GP: one effect in an unfavourable direction [\downarrow_{NS}]</p> <p>Symptoms: one effect in a favourable direction [$\uparrow+$]</p>	<p>Greater re-consultation in the nurse (5%) vs. the GP group (3%) (rate difference = -0.021, 95% CI -0.069 to 0.019, p=0.288).</p> <p>Quicker symptom resolution among nurse vs. GP patients (median number of days = 4 for nurse and 5 for GP, p=0.016).</p>
Shum et al. (2000)	Management of minor ailments	Patients	General practices in south east London and Kent, England	Nurse led	Practice nurse	n/a	GP in same practice	<p>GP: one effect in an unfavourable direction [\downarrow_{NS}]</p> <p>Out-of-hours GP: one effect in a favourable direction [\uparrow_{NS}]</p>	<p>GP consultations/calls were higher in the nurse group (20.4%/0.9%) versus the GP group (18.2%/1.8%; p=0.340 and 0.218 for re/consultations/calls) as were</p>

								<p>A&E: one effect in an unfavourable direction [↓NS]</p> <p>Symptoms : one effect in an unclear direction</p>	<p>A&E attendances (2.1% vs 2%, p>0.999).</p> <p>Fewer GP out-of-hours calls among the nurse (0.9%) vs. the GP group (1.8%, NS)</p> <p>For symptoms a statistically insignificant odds ratio of 1.2 (95% confidence interval 0.8 to 1.8) was reported, though the direction of this effect was unclear.</p>
Mason (2007)	Management of minor ailments	Patients	Paramedic practitioner service in Sheffield, England	Paramedic	Paramedic	n/a	Standard 999 service	<p>A&E: one effect in a favourable direction [↑+]</p>	Fewer A&E attendances in the intervention vs the control group

									(relative risk = 0.72, 95% CI 0.68 to 0.75).
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Table 2 BCTs identified in the interventions (with examples) and mapped onto the theoretical domains framework (TDF)

Behavioural change technique (BCT)	N of evaluations identified as present	Examples from descriptions of interventions	Theoretical domains framework (TDF)
Education interventions			
Instruction on how to perform the behaviour	10	It describes over 180 conditions organized in chapters by body areas and functions, together with home treatment.	Knowledge ¹²
Information about health consequences	10	Walking helps most recovering backs. The leaflet was simple, on one page, and included information about the natural history of LRTI.	Knowledge
Information about antecedents	8	The booklet outlines 40 common health problems and provides information on when to consult a doctor.	Knowledge
Credible source	6	The GPs in the experimental group also gave the patient a copy of the Back Home leaflet, verbally reinforcing the content: “This leaflet, called Back Home, gives you practical hints about how you can help to ease your back pain. Please read the leaflet carefully and use as many of the ideas as you can. This leaflet is important. It will allow you to be in control of your back pain.”	Reinforcement
Problem solving	3	An active self-management approach to back pain, encouraging the patient to identify positions/movements that are painful (examples given: lifting with bent back, bending, slouching, pulling/pushing) and also to identify positions to try to ease back pain (examples given to try: lying on back with knees bent, on back with legs on sofa, lying on front, sitting on firm chair with back support).	Physical skills ¹³

¹² Coded as knowledge (rather than training) as emphasis on advice rather than skills training.

¹³ Not previously mapped. Chosen as influences physical skills to manage problem in behavioural context.

Social support (unspecified)	2	The online training described the content and aims of the booklet, and encouraged its use within the consultation to facilitate the use of certain communication skills, mainly exploring the parent's main concerns, asking about their expectations, and discussing prognosis, treatment options...	Social influences
Behavioural experiments	2	There are interactive aspects, encouraging patients to list the movements or positions that increase their pain (listing movements that are comfortable or uncomfortable).	Physical skills
Vicarious consequences	1	...and provided "vicarious learning" information about successful coping experiences of others who had used these self-care methods.	Social influences
Action planning	1	...take exercise as soon as back pain allowed, and to aim for regular exercise in the longer term (with a target of 20 minutes sufficient to bring about shortness of breath at least three times per week.	Goals
Prescribing strategies			
Behaviour substitution	3	No antibiotics	Reinforcement ¹⁴
Incentive ¹⁵	2	Delayed antibiotics (prescription to be collected from the surgery at the parents' or patients' discretion after three days).	Reinforcement ¹⁶

¹⁴ Not previously mapped. Coded here as reinforcement as it was assumed that it worked through weakening habitual visits to see a GP for non-minor symptoms and the need for antibiotic treatment.

¹⁵ Relabelled to fit context (originally non-specific incentive).

¹⁶ Not previously mapped. Coded here as reinforcement as it was assumed that it worked through weakening habitual visits to see a GP for non-minor symptoms and the need for antibiotic treatment.

Table 3 Choice of intervention functions

Candidate intervention functions	Suitability
Education	Yes (but not alone, needs to be used in conjunction with training)
Persuasion	Yes
Incentivisation	Challenging to deliver in this context
Coercion	Not socially acceptable
Training	Yes
Restriction	Yes
Environmental restructuring	Yes (but longer term solutions require structural change)
Modelling	Challenging to deliver in this context
Enablement	Yes