Combined Diet and Physical Activity Promotion Programs to Prevent Type 2 Diabetes Among People at Increased Risk

Characteristics of Study Patients in the Included Studies

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m^2)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
Absetz 2007 17586741	DPA	352	25	59 (4)	ND	32.2 (5.0)	ND	ND	Education: Elementary 64% Secondary 23% High school 10% Employment: Employed 38% Unemployed 14% Retired 47%
Ackermann 2008 18779029	DPA	46	50	56.5 (9.7)	Hispanic 2% African American 4% White 93% Other 2%	32.0 (4.8)	ND	ND	ND
	Control	46	39	60.1 (10.5)	Hispanic 4% African American 20% White 71% Other 9%	30.8 (5.1)	ND	ND	ND
Ackermann 2014 24740868	More intensive	159	15	46.9 (11.3)	White 77% Black 18% Hispanic 4%	35.1 (5.7)	ND	ND	Household income: <$25,000/y: 10.5% $25-$75,000/y: 49.2% >$75,000: 40.3%
	Less intensive	155	20	46.5 (11.3)	White 77% Black 17% Hispanic 2%	36.1 (6.0)	ND	ND	Household income: <$25,000/y: 5.3% $25-$75,000/y: 59.5% >$75,000: 35.1%
Admiraal 2013 23894322	DPA	177	50	44.7 (10.6)	ND	28.1 (3.8)	ND	ND	Educational level: Low 10.4% Middle 67.1% High 22.0%

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
	Control	158	51	45.0 (9.5)	ND	27.2 (3.8)	ND	ND	Educational level: Low 12.8% Middle 67.9% High 19.2%
Bhopal 2014 24622752	DPA	85	46	52.8 (10.2)	Indian 34% Pakistani 66%	30.6 (5.0)	ND	ND	Education: No qualifications 38% School level 27% Further or higher 35%
	Control	86	45	52.2 (10.3)	Indian 33% Pakistani 67%	30.5 (4.6)	ND	ND	Education: No qualifications 28% School level 30% Further or higher 42%
Cezaretto 2012 21538199	DPA	97	ND	56.1 (11.4)	ND	31.5 (5.7)	ND	ND	ND
	Control	80	ND	53.8 (13.3)	ND	30.5 (5.6)	ND	ND	ND
Cole 2013 23589326	More intensive	34	59	61.2 (8.4)	Caucasian 67% African American 15% Hispanic 18%	30.3 (5.0)	ND	100	Education: High school or GED 13% Some college 35% Bachelor's degree 26% Postgraduate degree 26%
	Less intensive	31	49	55.0 (9.9)	Caucasian 62% African American 19% Hispanic 19%	31.4 (4.8)	ND	100	Education: High school or GED 26% Some college 37% Bachelor's degree 30% Postgraduate degree 7%
Costa 2012 22322921	DPA	333	32	62.2 (8.0)	ND	31.2 (4.7)	ND	By WHO criteria: 44	ND
	Control	219	36	62.0 (7.9)	ND	31.3 (4.7)	ND	By WHO criteria: 47	ND
De la Rosa 2008 No PMID	DPA	30	ND	ND	ND	ND	ND	ND	ND
	Control	28	ND	ND	ND	ND	ND	ND	ND
Dunbar 2010	More intensive	85	22.4	57.1 (1.0)	ND	32.6 (0.7)	ND	ND	Education 11.8 (0.5) y

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
No PMID	Less intensive	79	34.2	56.5 (0.9)	ND	32.1 (0.6)	ND	ND	Education 12.2 (0.4) y
Eriksson 1991 1778354	DPA	181	ND	ND	ND	26.6 (3.1)	ND	ND	ND
	Control	79	ND	ND	ND	26.7 (4.0)	ND	ND	ND
Gagnon 2011 21489843	More intensive	22	41	54.8 (11.7)	ND	36.0 (6.3)	ND	100	ND
	Less intensive	26	55	58.4 (10.7)	ND	34.1 (4.3)	ND	100	ND
Gilis-Januszewska 2011 No PMID	DPA	175	21.7	"middle-aged"	ND	31.7 (5.0)	ND	ND	ND
Gillison 2015 25592314	More intensive	54	ND	ND	ND	96.6 (14.0) kg	ND	ND	ND
	Control	52	ND	ND	ND	97.6 (12.8) kg	ND	ND	ND
Iqbal Hydrie 2012 22888411	DPA	114	ND	43.1 (10.1)	SE Asian 100%	26.1 (4.7)	ND	ND	ND
	Control	108	ND	44.2 (10.9)	SE Asian 100%	27.0 (5.7)	ND	ND	ND
Islam 2014 24852392	DPA	76	39	46.3 (11.6)	SE Asian 100%	28.2 (4.0)	30.6	ND	Education: <High school 16.2% High school/some college 58.1% College graduate 25.7% Speaks English not well or not at all 37.8%
	Control	50	42	47.8 (9.5)	SE Asian 100%	28.6 (3.0)	34.0	ND	Education: <High school 8.2% High school/some college 85.7% College graduate 6.1% Speaks English not well or not at all 52.0%

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
Janus 2012 22929458	DPA	38	44.7	64.2 (7.5)	ND	31.4 (4.82)	ND	ND	Income: Low 54.1% Medium 40.5% High 5.4%
	Control	42	23.8	65.0 (6.0)	ND	30.1 (4.19)	ND	ND	Income: Low 74.4% Medium 23.1% High 2.6%
Jiang 2013 23275375	DPA	2553	25.5	18-<40 yo 28.6 40-<50 yo 30.3 50-<60 yo 25.3 ≥60 yo 15.8	Native American 100%	35.8 (7.3)	ND	ND	Education: <HS 14% HS graduate 21% Some college 45% ≥College graduate 19% Annual household income: 0-14,999 19% 15,000-29,999 22% 30,000-49,999 30% ≥50,000 29% Employment: Employed 74% Unemployed 16% Retired 8% Student 3%
Kanaya 2012 22698027	DPA	113	27	55 (17)	African American 23% Non-Hispanic White 22% Latino 35% Asian 18% Native American/Pacific Islander 1% Multiethnic/mixed 2%	30.1 (5.3)	50	ND	Education: < High school 21% High school/GED 20% Some college/tech 27% Bachelor's degree 32%
	Control	117	26	58 (16)	African American 23% Non-Hispanic White 23% Latino 39% Asian 13% Native American/Pacific Islander 1% Multiethnic/mixed 1%	29.9 (6.1)	44	ND	Education: < High school 25% High school/GED 11% Some college/tech 22% Bachelor's degree 42%

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
Katula 2013 23498294	More intensive	151	42.4	57.3	African American 25.8% White 73.5% Other/refused 0.7%	32.8 (3.9	ND	ND	Education: High school or less 29% Associate degree or other 49% Bachelor's degree 37% Beyond Bachelor's degree 36%
	Less intensive	140	42.7	58.5	African American 23.3% White 74.0% Other/refused 2.7%	32.6 (4.1)	ND	ND	Education: High school or less 32% Associate degree or other 47% Bachelor's degree 37% Beyond Bachelor's degree 34%
Knowler 2002 11832527	DPA	1079	32	50.6 (11.3)	White 50.8% African American 18.9% Hispanic 16.5% American Indian 5.6% Asian 5.3%	33.9 (6.8)	ND	ND	ND
	Control	1082	31	50.3 (10.4)	White 54.2% African American 20.3% Hispanic 15.5% American Indian 5.5% Asian 4.5%	34.2 (6.7)	ND	ND	ND
Knowler 2009 19878986	DPA	910	32	55.3 (11)	ND	Men 30.4 (6.3) Women 33.7 (7.3)	ND	ND	ND
	Control	932	31	54.8 (10)	ND	Men 31.9 (5.9) Women 34.7 (7.1)	ND	ND	ND
Kosaka 2005 15649575	More intensive	102	ND	Age (year) 30s: 5.2% 40s: 32.9% 50s: 53.9% 60s: 8.1%	Japanese 100%	24.0 (2.3)	ND	ND	ND

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
	Less intensive	356	ND	Age (year) 30s: 3.9% 40s: 32.3% 50s: 56.9% 60s: 6.9%	Japanese 100%	23.8 (2.1)	ND	ND	ND
Kulzer 2009 19509014	DPA	ND	ND	ND	ND	31.0 (4.7)	ND	ND	ND
	Control	ND	ND	ND	ND	32.0 (5.7)	ND	ND	ND
Kyrios 2009 19351299	DPA	108	ND	ND	ND	29.7 (5.5)	ND	ND	ND
Laatikainen 2007 17877832	DPA	311	ND	57.0 (9)	ND	34.1 (6.4)	ND	ND	Years of education: 11.4 (3.2)
Liao 2002 12196418	More intensive	32	37	55.8 (1.8)	Japanese 100%	25.6 (0.8)	ND	ND	ND
	Less intensive	32	53	52.2 (1.8)	Japanese 100%	26.6 (0.8)	ND	ND	ND
Ma 2013 23229846	More intensive	81	54.3	51.8 (9.9)	Non–Hispanic white 79.0% Asian/Pacific Islander 17.3% Latino/Hispanic 2.5%	31.7 (4.7)	ND	51.9	Income: <$75 000: 10.3% $75 000-%124 999: 19.2% $125 000-$149 999: 17.9% ≥$150 000 52.6%

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
	Less intensive	79	51.9	54.6 (11.0)	Non–Hispanic white 77.2% Asian/Pacific Islander 16.5% Latino/Hispanic 5.1%	31.8 (5.1)	ND	57.0	Income: <$75 000: 14.3% $75 000-$124 999: 32.5% $125 000-$149 999: 15.6% ≥$150 000: 37.7%
	Control	81	54.3	52.5 (10.9)	Non–Hispanic white 77.8% Asian/Pacific Islander 17.3% Latino/Hispanic 4.9%	34.2 (6.3)	ND	54.3	Income: <$75 000: 11.5% $75 000-$124 999: 28.2% $125 000-$149 999: 6.4% ≥$150 000 53.9%
Makrilakis 2010 20536519	DPA	191	40	56.3 (10.8)	ND	32.3 (5.0)	ND	ND	ND
Moore 2011 20945253	DPA	208	ND	ND	ND	29.7	ND	ND	ND
	Control	99	ND	ND	ND	29.8	ND	ND	ND
Nilsen 2011 22117618	More intensive	109	47	47.0 (11)	ND	37.7 (6)	ND	ND	High school or university: 29%
	Less intensive	104	53	45.9 (11)	ND	35.9 (6)	ND	ND	High school or university: 27%
Ockene 2012 22390448	DPA	163	28	51.4 (10.9)	ND	33.6 (5.1)	ND	ND	<High school education: 60.6%
	Control	150	23	52.4 (11.6)	ND	33.2 (5.9)	ND	ND	<High school education: 57.1%
Oldroyd 2006 16297488	DPA	39	46	58.2 (41-75)	ND	ND	ND	ND	ND
	Control	39	69	57.5 (41-73)	ND	ND	ND	ND	ND
Pan 1997	DPA	126	56	44.4 (9.2)	Chinese 100%	26.3 (3.9)	ND	ND	ND

Author, Year, PMID*	Intervention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hypertension	% pre-diabetes by ADA criteria	Socio-economic status
9096977	Control	133	55	46.5 (9.3)	Chinese 100%	26.2 (3.9)	ND	ND	ND
Patrick 2013 23759410	More intensive	24	14.3	12-16	White 8% African-American 13% Native American 4% Asian or Pacific Islander 0% Multiethnic or other 0% Said preferred not to state 17% Did not state 58%	z score: 2.2 (0.07)	ND	ND	ND
	Less intensive 1: "Weight loss "	26	14.3	12-16	White 23% African-American 8% Native American 0% Asian or Pacific Islander 8% Multiethnic or other 4% Said preferred not to state 15% Did not state 42%	z score 2.2 (0.07)	ND	ND	ND
	Less intensive 2: "Weight loss"	26	14.1	12-16	White 27% African-American 15% Native American 0% Asian or Pacific Islander 4% Multiethnic or other 4% Said preferred not to state 23% Did not state 27%	z score 2.2 (0.07)	ND	ND	ND
	Control	25	14.5	12-16	White 12% African-American 28% Native American 0% Asian or Pacific Islander 4% Multiethnic or other 4% Said preferred not to state 16% Did not state 36%	z score 2.2 (0.07)	ND	ND	ND

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m^2)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
Penn 2009 19758428	DPA	51	41.2	56.8 (40-72)	ND	34.1 (5.5)	ND	ND	Socio-economic status by type of work: Manual 23% Non-manual 19% Data unavailable 9%
	Control	51	39.2	57.4 (38-74)	ND	33.5 (4.6)	ND	ND	Socio-economic status by type of work: Manual 26% Non-manual 19% Data unavailable 6%
Penn 2013 24227871	DPA	218	31	53.6 (6)	ND	33.5 (5.9)	ND	ND	ND
Ramachandran 2006 16391903	DPA	133	78	Age 35–39: 14% 40–44: 26% 45–49: 28% 50–55: 32%	SE Asian 100%	25.7 (3.3)	31.6	ND	Occupation: (Un)skilled workers 60% Executive/business class 29% Household jobs 10% Education: No formal education 7% School 62% College 24% Technical 7% Monthly income (rupees): ≤5,000 26% (27.1) 5,000–10,000: 49% >10,000: 26%

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m^2)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
	Control	136	76	Age 35–39: 19% 40–44: 24% 45–49: 32% 50–55: 25%	SE Asian 100%	26.3 (3.7)	32.4	ND	Occupation: Unskilled/skilled workers 60% Executive/business class 31% Household jobs 9% Education No formal education 4% School 56% College 32% Technical 8% Monthly income (rupees) ≤5,000: 29% 5,000–10,000: 50% >10,000: 21%
Ramachandran 2009 19277602	DPA	204	87	45.1 (6.1)	SE Asian 100%	26.0 (3.5)	36	ND	ND
	Control	203	86	45.5 (6.3)	SE Asian 100%	26.2 (3.3)	35	ND	ND
Ramachandran 2013 24622367	DPA	271	ND	45.9 (4.8)	SE Asian 100%	25.8 (3.3)	ND	ND	Occupation: Unskilled 3% Skilled 61% Clerical or executive 36%
	Control	266	ND	46.1 (4.6)	SE Asian 100%	25.8 (3.0)	ND	ND	Occupation: Unskilled 4% Skilled 64% Clerical or executive 32%
Roumen 2008 18445174	DPA	52	52	54.2 (5.8)	ND	29.6 (3.8)	ND	ND	ND
	Control	54	56	58.4 (6.8)	ND	29.2 (3.3)	ND	ND	ND
Saaristo 2010 20664020	DPA	2798	33	55 (10)	ND	31.3 (5)	ND	ND	ND

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
Saito 2011 21824948	More intensive	311	72	50 (44-54)	Japanese 100%	26.9 (2.6)	ND	ND	ND
	Less intensive	330	71	48 (41-54)	Japanese 100%	27.1 (2.6)	ND	ND	ND
Sakane 2011 21235825	DPA	152	49	51 (7)	Japanese 100%	24.8 (3.6)	ND	ND	ND
	Control	152	50	51 (6)	Japanese 100%	24.5 (3.2)	ND	ND	ND
Savoye 2014 24062325	DPA	38	31.6	12.7 (1.9)	Non-Hispanic 31.6% Hispanic white 39.5% Black 29% Other 0%	32.1 (5.2)	ND	100	ND
	Control	37	37.8	13.2 (1.8)	Non-Hispanic 35.1% Hispanic white 32.4% Black 27.0% Other 5.4%	34.6 (6.8)	ND	100	ND
Sepah 2014 24723130	DPA	220	17	43.6 (12.4)	White 50% Black 39% Hispanic 11% Other 10%	36.6 (7.5)	ND	ND	Education: <College graduate 48% ≥College graduate 52% Income: <50,000 48% ≥50,000 52%
Swanson 2012 22068253	DPA	221	33	62 (11)	White 88%	31.2 (5.6)	ND	ND	ND
Tate 2003 12684363	DPA	46	8	49.8 (9.3)	White 89%	32.5 (3.8)	ND	ND	Education: High school 15% Some college 33% College degree 26% Graduate degree 26%
	Control	46	11	47.3 (9.5)	White 89%	33.7 (3.7)	ND	ND	Education: High school 15% Some college 37% College degree 31% Graduate degree 15%
Tuomilehto	DPA	265	34	55 (7)	ND	31.0 (4.5)	ND	ND	ND

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
2001 11333990	Control	257	32	55 (7)	ND	31.3 (4.6)	ND	ND	ND
Vanderwood 2010 20805260	DPA	816	20	52.3 (11.6)	ND	99.2 (20.7) kg	ND	ND	ND
Vermunt 2011 21775759	DPA	305	ND	ND	ND	29.0 (4.4)	ND	ND	ND
	Control	330	ND	ND	ND	28.5 (4.1)	ND	ND	ND
Vojta 2013 23498291	DPA	2369	ND	ND	ND	ND	ND	ND	ND
Weinstock 2013 23843020	DPA	129	22	50.7 (13.1)	White 85% African American/other races 14% Hispanic 1% Missing 1%	38.9 (7.6)	ND	ND	Employed 49% Education No HS diploma 12% HS/technical diploma 54% Associates degree 14% Bachelor's degree 10% Post-bachelor's degree 10% Household income: ≤20,000 22% 20,001-40,000 29% ≥40,001 40% Missing 10%

Author, Year, PMID*	Inter-vention	N	% Male	Age	Ethnicity	Body weight (BMI, kg/m²)†	% Hyper-tension	% pre-diabetes by ADA criteria	Socio-economic status
	Control	128	29	52.7 (12.8)	White 86% African American/other races 13% Hispanic 2% Missing 0%	39.7 (8.3)	ND	ND	Employed 44% Education No HS diploma 9% HS/technical diploma 50% Associates degree 14% Bachelor's degree 17% Post-bachelor's degree 17% Household income: ≤20,000 16% 20,001-40,000 30% ≥40,001 41% Missing 13%

* Of primary study.

† Unless otherwise indicated.

Abbreviations

ADA, American Diabetes Association

BMI, body mass index

DPA, diet and physical activity

HS, high school

kg, kilogram

ND, not documented

yo, years old