Supplementary materials, Stunes AK *et al*.
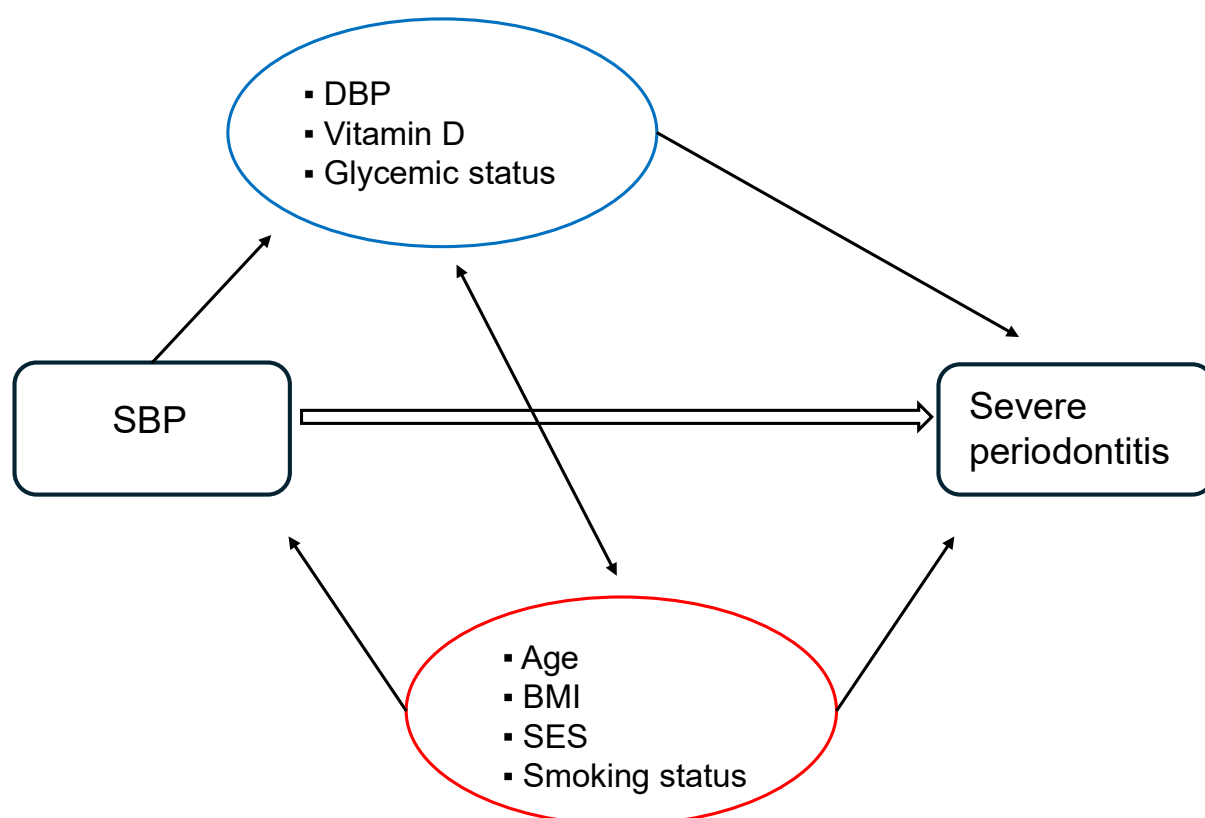BP and Oral Health, Rural Women in Nepal
Page **1** of **5**

Supplementary Figure 1. Directed Acyclic Graph (DAG) model for Decayed, Missing and Filled Teeth (DMFT). Exposure: Systolic Blood Pressure (SBP) in mm Hg. Mediators (blue): Diastolic Blood Pressure (DBP) in mm Hg, Saliva Flow Rate in mL/minute and serum vitamin D (25(OH)D) in nmol/l, Confounders (red): Age in years, Body Mass Index (BMI) in kg/m^2, Socioeconomic Status (SES) and Smoking status. Covariate (green): Tooth brushing frequency.

Supplementary materials, Stunes AK *et al*.
BP and Oral Health, Rural Women in Nepal
Page **2** of **5**

Supplementary Figure 2. Directed Acyclic Graph (DAG) model for Severe periodontitis. Exposure: Systolic Blood Pressure (SBP) in mm Hg. Mediators (blue): Diastolic Blood Pressure (DBP) in mm Hg, serum Vitamin D (25(OH)D) in nmol/l and glycemic status. Confounders (red): Age in years, Body Mass Index (BMI) in kg/m^2, Socioeconomic Status (SES) and Smoking status.

Supplementary materials, Stunes AK *et al*.
BP and Oral Health, Rural Women in Nepal
Page **3** of **5**

Supplementary Table 1: Clinical oral health characteristics

	Total, N = 691	< 35 yrs, N = 80	35–44 yrs, N = 183	45–54 yrs, N = 218	≥ 55 yrs, N = 210
DMFT					
Mean ± SD	5.07 ± 6.04	3.01 ± 4.52	2.83 ± 4.14	4.04 ± 4.55	8.87 ± 7.38
Median (IQR)	3.0 (6.0)	2.0 (4.0)	1.0 (4.0)	3.0 (6.0)	7.0 (11.0)
BOP					
Present in	564 [81.6]	68 [85]	158 [86.3]	188 [86.2]	150 [71.4]
Mean ± SD	7.89 ± 6.38	7.30 ± 5.30	8.73 ± 6.68	8.56 ± 6.57	6.69 ± 6.14
Median (IQR)	7.0 (9.0)	7.5 (8.0)	8.0 (8.0)	8.0 (8.0)	6.0 (11.0)
Percentage of total teeth	32.2 ± 26.1	28.9 ± 22.7	33.5 ± 25.8	34.0 ± 26.2	30.5 ± 27.4
Pockets 4–5 mm					
Present in	265 [38.4]	13 [16.2]	56 [30.6]	82 [37.6]	114 [54.3]
Mean ± SD	2.55 ± 4.49	0.78 ± 2.49	1.73 ± 3.38	2.50 ± 4.54	4.00 ± 5.37
Pockets ≥ 6 mm					
Present in	88 [12.7]	6 [7.5]	16 [8.7]	20 [9.2]	46 [21.9]
Mean ± SD	0.49 ± 1.95	0.11 ± 0.50	0.26 ± 1.57	0.21 ± 0.89	1.13 ± 2.99

Data are in numbers [percentage], mean ± standard deviation or median (interquartile range)
BOP = Bleeding on Probing

Supplementary materials, Stunes AK *et al.*
BP and Oral Health, Rural Women in Nepal
Page **4** of **5**

Supplementary Table 2: Variables stratified by Decayed, Missing and Filled Teeth (DMFT) status

DMFT index	Total N = 691	Low to moderate DMFT* N = 607	High DMFT* N = 84
SBP, mm Hg	126.3 ± 19.1	125.8 ± 18.6	130.2 ± 21.9
DBP, mm Hg	82.0 ± 10.7	82.1 ± 10.6	81.3 ± 10.8
BP status			
Normal to elevated	485 [70.2]	432 [71.2]	53 [63.1]
Hypertension	206 [29.8]	175 [28.8]	31 [36.9]
Age, yrs	48.4 ± 11.7	47.2 ± 11.0	57.5 ± 12.4
BMI, kg/m$^{2, a}$	24.8 ± 4.3	24.9 ± 4.2	23.7 ± 5.0
SES			
Middle	144 [20.8]	124 [20.4]	20 [23.8]
Low	510 [73.8]	457 [75.3]	53 [63.1]
Missing	37 [5.4]	26 [4.3]	11 [13.1]
Smoking status			
Never	448 [64.8]	396 [65.2]	52 [61.9]
Previous	106 [15.3]	92 [15.2]	14 [16.7]
Current	136 [19.7]	118 [19.4]	18 [21.4]
Missing	1 [0.1]	1 [0.2]	-
Tooth brushing frequency			
≥ once/day	30 [4.4]	450 [74.2]	47 [56.0]
< once/day	467 [67.6]	155 [25.5]	34 [40.5]
Missing	5 [0.7]	2 [0.3]	3 [3.6]
s25(OH)D, nmol/L^b	52.3 ± 15.5	52.6 ± 14.7	49.9 ± 20.2
UWSFR, mL/minute^c	0.51 ± 0.30	0.51 ± 0.29	0.47 ± 0.34

Data are as mean ± standard deviation or number [%]

*DMFT = Decayed, Missing and Filled Teeth, Low to moderate: DMFT ≤ 13.9 and High: DMFT > 13.9

SBP/DBP = Systolic/Diastolic Blood Pressure, BMI = Body Mass Index, SES = Socioeconomic Status

s = serum, UWSFR = Unstimulated Whole Salivary Flow Rate

**Blood pressure status, Hypertension: SBP ≥ 140 mmHg and/or DBP ≥ 90 mm Hg and/or use BP medication

[a]missing data from N = 3

[b]missing data from N = 30

[c]missing data from N = 41

Supplementary materials, Stunes AK *et al*.
BP and Oral Health, Rural Women in Nepal
Page **5** of **5**

Supplementary Table 3: Variables stratified by periodontal status

	Total N = 691	No or mild to moderate periodontitis N = 603	Severe periodontitis* N = 88
SBP, mm Hg	126.3 ± 19.1	125.7 ± 18.6	130. ± 21.9
DBP, mm Hg	82.0 ± 10.7	81.8 ± 10.7	83.3 ± 11.0
BP status**			
Normal to elevated	485 [70.2]	426 [70.6]	59 [67.0]
Hypertension	206 [29.8]	177 [29.4]	29 [33.0]
Age, yrs	48.4 ± 11.7	47.6 ± 11.3	54.2 ± 12.5
BMI, kg/m²,ᵃ	24.8 ± 4.3	25.0 ± 4.3	23.5 ± 4.0
Smoking status			
Never	448 [64.8]	402 [66.6]	46 [52.3]
Previous	106 [15.3]	92 [15.3]	14 [15.9]
Current	136 [19.7]	108 [17.9]	28 [31.8]
Missing	1 [0.1]	1 [0.2]	-
SES			
Middle	144 [20.8]	117 [19.4]	27 [30.7]
Low	510 [73.8]	454 [75.3]	56 [63.6]
Missing	37 [5.4]	32 [5.3]	5 [5.7]
s25(OH)D, nmol/Lᵇ	52.3 ± 15.5	52.6 ± 14.9	50.3 ± 19.5
Glycemic status***			
Normal	400 [57.9]	358 [59.4]	42 [47.8]
Pre-diabetes	223 [32.3]	187 [31.0]	36 [40.9]
Diabetes	48 [6.9]	39 [6.5]	9 [10.2]
Missing	20 [2.9]	19 [3.2]	1 [1.1]

Data are in mean ± standard deviation or number [%]

SBP/DBP = Systolic/Diastolic Blood Pressure, BMI = Body Mass Index, SES = Socioeconomic Status, s = serum

*Severe periodontitis: ≥ 2 pockets 4–5 mm and ≥ 1 pocket ≥ 6 mm

**Blood pressure status, Hypertension: SBP ≥ 140 mmHg and/or DBP ≥ 90 mm Hg and/or use BP medication

***Glycemic status, Normal: HbA1c < 39 mmol/mol, Pre-diabetes: HbA1c ≥ 39 to < 48 mmol/mol, Diabetes: diabetes history/medication/HbA1c ≥ 48 mmol/mol.

ᵃmissing data from N = 3

ᵇmissing data from N = 30