LOC Association Rules: Cascade Approach

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1 Demographics

1.1 Participant Characteristics

	Full Sample	L	OC
		Yes	No
$\mathrm{Total}(N)$	177	37	121
LOC Not Reported	19		
Age(Mean (SD))	9.19(1.32)	8.89 (1.31)	9.28(1.37)
$\operatorname{Sex}(N)$			
Male	91	19	63
Female	86	18	58
BMI percentile(Mean (SD))	60.02(28.48)	71.49(26.24)	57.64 (27.64)
BMI $Status(N)$			
Obese	23	8	13
Overweight	24	7	14
Healthy Weight	128	22	93
Underweight	2	0	1
Ethnicity (N)			
Hispanic/Latino	8	2	5
Not Hispanic/Latino	126	33	76
Not Reported	42	2	34
$\operatorname{Race}^{A}(N)$			
Black/African American	6	4	2
White	161	31	114
Other	8	1	4
Not Reported	2	1	1
SES(N)			
> \$100,000	49	6	40
\$50,000 - \$100,000	83	21	54
< \$50,000	40	10	24
Not Reported	5	0	3
Breast Fed $Duration(N)$			
Never	53	10	30
1-3 months	15	3	12
4-6 months	51	13	35
7-9 months	36	5	31
10+ months	18	5	11
Not Reported	4	1	2

 A Fisher's exact test p<0.05

1.2 Parent Characteristics

	Full Sample	LO	OC
		Yes	No
$\mathrm{Total}(N)$	177	37	121
LOC Not Reported	19		
Breast Fed $Duration(N)$			
Never	53	10	30
1-3 months	15	3	12
4-6 months	51	13	35
7-9 months	36	5	31
10+ months	18	5	11
Not Reported	4	1	2
Maternal $\mathrm{Ed}^{A}(N)$			
High School	26	10	11
Post High School	145	26	105
Not Reported	6	1	5
Paternal $Ed(N)$			
High School	37	9	22
Post High School	129	25	92
Not Reported	11	3	7
Maternal BMI $Status(N)$			
Severely Obese (BMI 35+)	20	8	11
Obese	18	4	13
Overweight	25	5	19
Healthy Weight	75	15	57
Underweight	4	2	2
Not Reported	35	3	19
Paternal BMI $Status(N)$			
Severely Obese (BMI 35+)	21	5	12
Obese	30	7	22
Overweight	66	15	46
Healthy Weight	51	9	34
Underweight	0	0	0
Not Reported	9	1	7

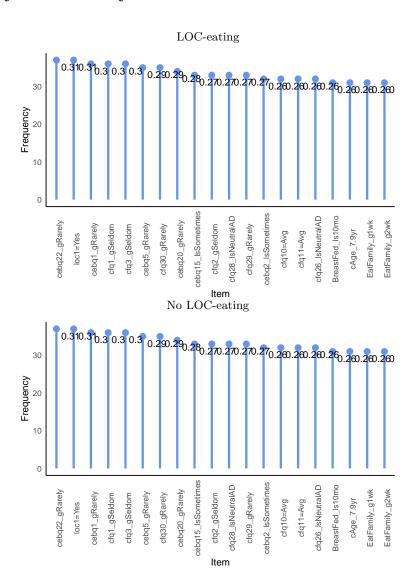
^AFisher's exact test p<0.05

2 CEBQ and CFQ by LOC status

	Full Sa	mple		LC	OC			
			Ye	es	No	0		
	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range	d	p
CEBQ-FR	2.54(0.72)	[1, 4.75]	2.78 (0.88)	[1, 4]	2.46 (0.63)	$[1. \ 4.75]$	0.46	0.044
CEBQ-EOE	2.13(0.64)	[1, 3.8]	2.20(0.75)	[1, 3.8]	2.10(0.61)	[1, 3.8]	0.15	0.478
CEBQ-EF	3.78(0.66)	[1.75, 5]	3.90(0.63)	[2.5, 5]	3.74(0.67)	[1.75, 5]	0.25	0.178
CEBQ-DD	2.59(0.90)	[1, 4.7]	2.73(1.09)	[1, 4.7]	2.55(0.84)	[1, 4.7]	0.20	0.350
CEBQ-SR	2.84(0.61)	[1.4, 4.2]	2.63(0.67)	[1.4, 4.2]	2.92(0.57)	[1.4, 4.2]	0.49	0.019*
CEBQ-SE	2.70(0.73)	[1, 4.75]	2.59(0.87)	[1.25, 4.5]	2.75(0.68)	[1.5, 4.75]	0.19	0.310
CEBQ-EUE	2.64(0.79)	[1, 5]	2.48(0.64)	[1.33, 3.67]	2.68(0.84)	[1, 5]	0.25	0.129
CEBQ-FF	2.85(0.89)	[1, 5]	3.08(1.0)	[1.33, 5]	2.77(0.84)	[1, 5]	0.35	0.099^{\dagger}
CFQ-PR	4.02(0.71)	[2, 5]	4(0.74)	[2, 5]	4.02(0.68)	[2.33, 5]	0.02	0.910
CFQ-PPW	3.16(0.49)	[2, 5]	3.22(0.57)	[2.25, 5]	3.14(0.48)	[2, 4.5]	0.15	0.460
CFQ-PCW	2.92(0.37)	[1.4, 4.2]	3.01(0.33)	[2, 4]	2.92(0.33)	[2, 4.2]	0.29	0.137
CFQ-CONC	2.84(1.69)	[1, 5]	2.64(1.73)	[1, 5]	2.88(1.68)	[1, 5]	0.18	0.350
CFQ-REST	3.19(0.88)	[1,4.88]	3.14(0.94)	[1.25, 4.63]	3.24(0.87)	[1, 4.88]	0.12	0.563
CFQ-PE	2.16(0.90)	[1, 4.5]	$1.86 \ (0.77)$	[1, 4.25]	2.24(0.89)	[1, 4.5]	0.43	0.018*
CFQ-MON	3.68 (0.90)	[1, 5]	3.85 (0.95)	[2, 5]	3.61 (0.89)	[1, 5]	0.26	0.194

All but CFQ-PR have 2 missing in full sample; CFQ-PR has 16 missing in full sample.

3 Fequency of Items by LOC status



4 Determinants of LOC

4.1 Step 1: Single Predictor

Confidence = 0.33

Support = 0.06 (25%, n=9)

 $29~\mathrm{rules}$ were identified:

- \bullet all 10 had $\kappa>0.20$
- \bullet all 29 had added value ≥ 0.05
- ullet of the 11 remaining, all 11 weres significant after controlling for multiple comparisons

Table 1: Determinants of LOC-Single Predictors

LHS	count	support	confidence	lift	addVal	kappa	oddsRatio	fisher.padj_holm	Cat
cebq12_gRarely	20	0.127	0.364	1.553	0.129	0.215	2.891	0.030	gR_FR
$cebq33_gSometimes$	17	0.108	0.378	1.613	0.144	0.212	2.823	0.030	gS_FF
$cebq34_gRarely$	16	0.101	0.457	1.952	0.223	0.281	4.090	0.006	gR_FR
$cebq7_gSometimes$	17	0.108	0.386	1.650	0.152	0.222	2.959	0.030	gS_FF
cfq20=Agree	19	0.120	0.365	1.560	0.131	0.211	2.815	0.030	gRest
$cfq23_lsNeutralAD$	15	0.095	0.429	1.830	0.194	0.245	3.443	0.021	lsN_Rest
cfq26=Disagree	28	0.177	0.400	1.708	0.166	0.313	5.852	0.000	lsPE
cfq28 = Disagree	26	0.165	0.361	1.542	0.127	0.243	3.854	0.005	lsPE
cfq29=Always	15	0.095	0.395	1.686	0.161	0.213	2.905	0.030	gMon
$mEducation_HS$	10	0.063	0.476	2.033	0.242	0.211	3.704	0.030	$mEducation_HS$

4.1.1 Crosstable of rule categories

Table 2: Determinants of LOC-Cross Tab of Single Predictors

Cat	Freq
gMon	1
gR_FR	2
gRest	1
gS_FF	2
lsN_Rest	1
lsPE	2
$mEducation_HS$	1

4.2 Step 2: Multiple Predictors

 ${\rm Confidence} = 0.50$

Support = 0.08 (33%, n = 12)

48 rules were identified:

- \bullet all 48 had $\kappa>0.20$
- \bullet all 48 had added value ≥ 0.05
- \bullet all 48 significant after controlling for multiple comparisons

Table 3: Determinants of LOC-Multiple Predictors $\,$

LHS2	LHS1	count	support	confidence	lift	addVal	kappa	oddsRatio	fisher.padj_holm	Cluster_gupta4
cebq10_gSometimesRev cebq10_lsSometimesRev cebq12_gRarely cebq14_gRarely	cebq1_gSometimes cebq1_gSometimes cfq26=Disagree cebq7_gSometimes	13 13 16 13	0.082 0.082 0.101 0.082	0.500 0.500 0.500 0.520	2.135 2.135 2.135 2.221	0.266 0.266 0.266 0.286	0.272 0.272 0.315 0.284	4.500 4.500 5.000 4.920	0.009 0.009 0.005 0.009	4
cebq14_gRarely cebq19_gRarely cebq26_lsSometimes cebq26_lsSometimes cebq26_lsSometimes	cfq26=Disagree cfq26=Disagree cebq19_gRarely cfq26=Disagree cebq12_gRarely	19 21 16 17 13	0.120 0.133 0.101 0.108 0.082	0.528 0.538 0.571 0.515 0.619	2.254 2.299 2.440 2.200 2.644	0.294 0.304 0.337 0.281 0.385	0.377 0.411 0.364 0.340 0.336	6.458 7.510 6.921 5.578 7.651	0.000 0.000 0.001 0.002 0.002	c 4 - - - - - - - - - - - - - - - - - - -
cebq27_gRarely cebq27_gRarely	cfq26=Disagree cfq27=Disagree	21 13	0.133 0.082	0.512 0.542	2.187 2.313	0.278 0.307	0.388 0.297	6.628 5.417	0.000 0.007	1
cebq27_gSometimes cebq30_lsSometimes cebq30_lsSometimes cebq30_lsSometimes	cfq26=Disagree cebq12_gRarely cebq19_gRarely cebq14_gRarely	13 13 15 16	0.082 0.082 0.095 0.101	0.650 0.500 0.500 0.500	2.776 2.135 2.135 2.135	0.416 0.266 0.266 0.266	0.349 0.272 0.301 0.315	8.821 4.500 4.818 5.000	0.001 0.009 0.007 0.005	4
cebq33_gSometimes cebq33_gSometimes cebq33_gSometimes cebq33_gSometimes cebq33_gSometimes	BreastFed_ls7mo cebq1_gSometimes cfq28=Disagree cebq14_gRarely cebq22_gSometimes	15 16 13 13	0.095 0.101 0.082 0.082 0.082	0.556 0.571 0.722 0.520 0.565	2.372 2.440 3.084 2.221 2.414	0.321 0.337 0.488 0.286 0.331	0.338 0.364 0.377 0.284 0.309	6.193 6.921 12.567 4.920 6.013	0.002 0.001 0.000 0.009 0.005	4 4 4 4 4 4
cebq34_gRarely cebq34_gRarely cebq34_gRarely cebq34_gRarely cebq34_gRarely	cebq20_gSometimes cfq26=Disagree cAge_7.9yr cebq13_lsSometimes cfq28=Disagree	13 15 13 13	0.082 0.095 0.082 0.082 0.089	0.520 0.682 0.500 0.520 0.636	2.221 2.912 2.135 2.221 2.717	0.286 0.448 0.266 0.286 0.402	0.284 0.404 0.272 0.284 0.363	4.920 11.104 4.500 4.920 8.598	0.009 0.000 0.009 0.009 0.001	4 1 4 4
cebq34_gRarely cebq34_gRarely cebq34_gRarely cebq7_gSometimes cfq20_gNeutralAD	cebq22_gSometimes cebq5_gSometimes cebq25_lsSometimes cebq1_gSometimes cebq34_gRarely	15 15 13 15 13	0.095 0.095 0.082 0.095 0.082	0.500 0.556 0.565 0.577 0.500	2.135 2.372 2.414 2.464 2.135	0.266 0.321 0.331 0.343 0.266	0.301 0.338 0.309 0.351 0.272	4.818 6.193 6.013 6.818 4.500	0.007 0.002 0.005 0.001 0.009	4 4 4 4 4
cfq21_lsNeutralAD cfq23_lsNeutralAD	$\begin{array}{l} {\rm cfq20{=}Agree} \\ {\rm cfq14_lsNeutralCon} \end{array}$	14 14	$0.089 \\ 0.089$	$0.583 \\ 0.500$	2.491 2.135	$0.349 \\ 0.266$	$0.337 \\ 0.287$	$6.757 \\ 4.652$	0.002 0.009	د د و

Table 3: Determinants of LOC-Multiple Predictors (continued)

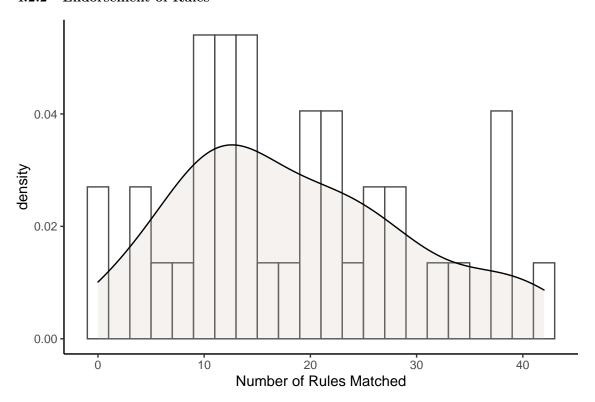
LHS2	LHS1	count	support	confidence	lift	addVal	kappa	oddsRatio	fisher.padj_holm	Cluster_gupta4
cfq23_lsNeutralAD	$cAge_7.9yr$	14	0.089	0.519	2.214	0.284	0.299	5.057	0.007	ç
$cfq23$ _lsNeutralAD	$cebq21_gRarely$	13	0.082	0.565	2.414	0.331	0.309	6.013	0.005	4
$cfq23_lsNeutralAD$	cfq14=Unconcerned	13	0.082	0.520	2.221	0.286	0.284	4.920	0.009	2
$cfq25$ _lsNeutralAD	$cBMI_OWOB$	14	0.089	0.500	2.135	0.266	0.287	4.652	0.009	ę
$cfq26_lsNeutralAD$	$cebq27_gSometimes$	13	0.082	0.500	2.135	0.266	0.272	4.500	0.009	4
$cfq26_lsNeutralAD$	$cebq34_gRarely$	16	0.101	0.571	2.440	0.337	0.364	6.921	0.001	2
$cfq26_lsNeutralAD$	$cebq33_gSometimes$	14	0.089	0.519	2.214	0.284	0.299	5.057	0.007	ę
$cfq26_lsNeutralAD$	$cebq7_gSometimes$	14	0.089	0.519	2.214	0.284	0.299	5.057	0.007	ę
cfq26=Disagree	cfq20=Agree	16	0.101	0.552	2.356	0.318	0.351	6.330	0.001	2
cfq26=Disagree	$cBMI_OWOB$	14	0.089	0.538	2.299	0.304	0.311	5.529	0.005	4
cfq26=Disagree	$mBMI_OBOW$	13	0.082	0.500	2.135	0.266	0.272	4.500	0.009	4
$cfq27_lsNeutralAD$	$cebq34_gRarely$	14	0.089	0.667	2.847	0.432	0.377	9.913	0.000	2
$cfq28_lsNeutralAD$	$cebq7_gSometimes$	14	0.089	0.583	2.491	0.349	0.337	6.757	0.002	2
$cfq28_lsNeutralAD$	$cebq27_gSometimes$	13	0.082	0.520	2.221	0.286	0.284	4.920	0.009	4
$cfq28_lsNeutralAD$	$cebq33_gSometimes$	14	0.089	0.560	2.391	0.326	0.324	6.087	0.003	٠ •
$cfq28_lsNeutralAD$	$cebq34_gRarely$	16	0.101	0.552	2.356	0.318	0.351	6.330	0.001	9

4.2.1 Crosstable of rule categories

Table 4: Determinants of LOC-Cross tabs Multiple Predictors

	gN_Rest	gR_EOE	gR_FR	gS_EOE	gS_FF	lsN_PE	lsN_Rest	lsPE	lsS_FF	lsS_SR
BreastFed_ls7mo	0	0	0	0	1	0	0	0	0	0
$\mathrm{cAge}_7.9\mathrm{yr}$	0	0	1	0	0	0	1	0	0	0
$cBMI_OWOB$	0	0	0	0	0	1	0	1	0	0
gR_FR	1	0	0	0	1	3	0	0	0	5
gR_SR	0	0	0	0	0	0	1	0	0	0
gRest	0	0	0	0	0	0	1	1	0	0
gS_EF	0	0	3	0	4	0	0	0	1	0
gS_EOE	0	0	0	0	0	2	0	0	0	0
gS_FF	0	0	1	0	0	4	0	0	0	0
lsConc	0	0	0	0	0	0	1	0	0	0
lsN_Conc	0	0	0	0	0	0	1	0	0	0
lsPE	0	2	5	1	1	0	0	0	0	1
lsS_EOE	0	0	1	0	0	0	0	0	0	0
lsS_EUE	0	0	1	0	0	0	0	0	0	0
${ m mBMI_OBOW}$	0	0	0	0	0	0	0	1	0	0

4.2.2 Endorsement of Rules



4.3 Clustering of Rules

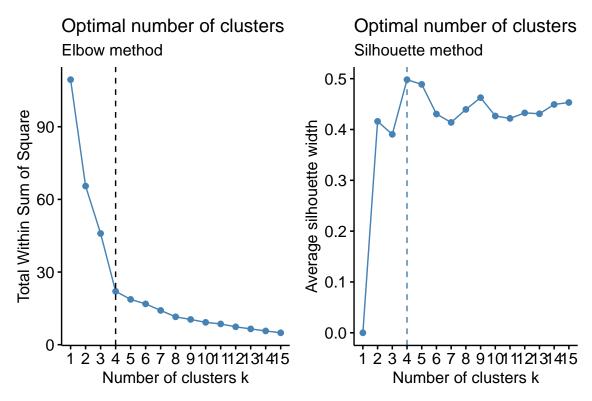


Table 5: Determinants of LOC-Cluster Metrics

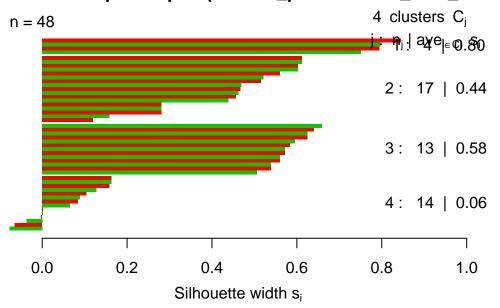
measure	score_at5	method	clusters
Connectivity	0	pam	2
Dunn	0.593	pam	10
Silhouette	0.498	pam	4
APN	0	pam	4
AD	0.5054	pam	10
ADM	0	pam	4
FOM	0.0753	pam	10

Number of clusters:

- 2: Connectivity
- ullet 4: The within sums of square elbow of the plot, Dunn index, Average Proportion of Non-Overlap, and Average distance between centers

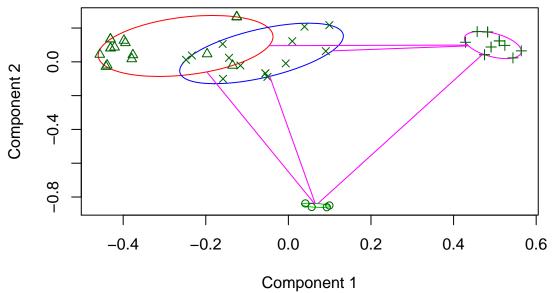
4.3.1 4 Cluster Solution

Silhouette plot of pam(x = dist_pruned.rules_lhs2_conf5



 $_{\rm Average\ Silhouette\ Widths}$ Average silhouette width: 0.4

Cluster plot, k = 2



Cluster Plot Cluster 1

These two components explain 47.96 % of the point variability.

Table 6: Determinants of LOC-Cluster 1

	gR_EOE	gR_FR	gS_FF	rowtotals
lsPE	1	2	1	4
coltotals	1	2	1	4

Table 7: Determinants of LOC-Cluster 1 Question Frequency

LHS1	Freq.x	Freq.y
cfq26=Disagree	3	NA
cfq28=Disagree	1	NA
$cebq19_gRarely$	NA	1
$cebq27_gRarely$	NA	1
$cebq33_gSometimes$	NA	1
cebq34_gRarely	NA	1

Cluster 2

Table 8: Determinants of LOC-Cluster 2 Question Frequency

	gR_FR	gS_EOE	gS_FF	lsN_PE	lsN_Rest	lsPE	lsS_SR	rowtotals
gR_FR	0	0	0	3	0	0	2	5
gRest	0	0	0	0	1	1	0	2
gS_EF	1	0	2	0	0	0	0	3
gS_FF	0	0	0	1	0	0	0	1
lsConc	0	0	0	0	1	0	0	1
lsPE	3	1	0	0	0	0	1	5
coltotals	4	1	2	4	2	1	3	17

Table 9: Determinants of LOC-Cluster 2 Question Frequency

LHS1	Freq.x	Freq.y
cebq1_gSometimes	2	NA
$cebq12_gRarely$	1	1
$cebq19_gRarely$	1	NA
cebq34_gRarely	3	2
$cebq5_gSometimes$	1	NA
$cebq7_gSometimes$	1	1
cfq14=Unconcerned	1	NA
cfq20=Agree	2	NA
cfq26=Disagree	4	1
cfq28=Disagree	1	NA
cebq14_gRarely	NA	1
$cebq26_lsSometimes$	NA	3

Table 9: Determinants of LOC-Cluster 2 Question Frequency (continued)

LHS1	Freq.x	Freq.y
cebq27_gSometimes	NA	1
$cebq33_gSometimes$	NA	1
$cfq21_lsNeutralAD$	NA	1
$cfq23_lsNeutralAD$	NA	1
$cfq26_lsNeutralAD$	NA	1
$cfq27_lsNeutralAD$	NA	1
$cfq28_lsNeutralAD$	NA	2

Cluster 3

Table 10: Determinants of LOC-Cluster 3

	gR_EOE	gR_FR	gS_FF	lsN_PE	lsN_Rest	lsPE	lsS_SR	rowtotals
BreastFed_ls7mo	0	0	1	0	0	0	0	1
$cAge_7.9yr$	0	0	0	0	1	0	0	1
$cBMI_OWOB$	0	0	0	1	0	1	0	2
gR_FR	0	0	0	0	0	0	1	1
gS_EF	0	1	1	0	0	0	0	2
gS_FF	0	0	0	3	0	0	0	3
lsN_Conc	0	0	0	0	1	0	0	1
lsPE	1	0	0	0	0	0	0	1
lsS_EUE	0	1	0	0	0	0	0	1
coltotals	1	2	2	4	2	1	1	13

Table 11: Determinants of LOC-Cluster 3 Question Frequency

LHS1	Freq.x	Freq.y
BreastFed_ls7mo	1	NA
$cAge_7.9yr$	1	NA
cBMI_OWOB	2	NA
cebq19_gRarely	1	NA
$cebq22_gSometimes$	2	NA
$cebq25_lsSometimes$	1	NA
cebq33_gSometimes	2	2
$cebq7_gSometimes$	1	NA
$cfq14_lsNeutralCon$	1	NA
cfq27=Disagree	1	NA
cebq27_gRarely	NA	1
$cebq30_lsSometimes$	NA	1
cebq34_gRarely	NA	2
$cfq23$ _lsNeutralAD	NA	2
$cfq25$ _lsNeutralAD	NA	1
cfq26_lsNeutralAD	NA	2

Table 11: Determinants of LOC-Cluster 3 Question Frequency (continued)

LHS1	Freq.x	Freq.y
cfq26=Disagree	NA	1
$cfq28_lsNeutralAD$	NA	1

Cluster 4

Table 12: Determinants of LOC-Cluster 4

	gN_Rest	gR_FR	gS_FF	lsN_PE	lsN_Rest	lsPE	lsS_FF	lsS_SR	rowtotals
cAge_7.9yr	0	1	0	0	0	0	0	0	1
gR_FR	1	0	1	0	0	0	0	2	4
gR_SR	0	0	0	0	1	0	0	0	1
gS_EF	0	1	1	0	0	0	1	0	3
gS_EOE	0	0	0	2	0	0	0	0	2
gS_FF	0	1	0	0	0	0	0	0	1
lsS_EOE	0	1	0	0	0	0	0	0	1
$mBMI_OBOW$	0	0	0	0	0	1	0	0	1
coltotals	1	4	2	2	1	1	1	2	14

Table 13: Determinants of LOC-Cluster 4 Question Frequency

LHS1	Freq.x	Freq.y
cAge_7.9yr	1	NA
cebq1_gSometimes	2	NA
$cebq12_gRarely$	1	NA
$cebq13_lsSometimes$	1	NA
$cebq14_gRarely$	2	1
$cebq20_gSometimes$	1	NA
$cebq21_gRarely$	1	NA
$cebq27_gSometimes$	2	NA
$cebq34_gRarely$	1	3
$cebq7_gSometimes$	1	NA
$mBMI_OBOW$	1	NA
$cebq10_gSometimesRev$	NA	1
$cebq10_lsSometimesRev$	NA	1
$cebq30_lsSometimes$	NA	2
$cebq33_gSometimes$	NA	1
$cfq20_gNeutralAD$	NA	1
$cfq23$ _lsNeutralAD	NA	1
$cfq26_lsNeutralAD$	NA	1
cfq26=Disagree	NA	1
$cfq28_lsNeutralAD$	NA	1

4.4 Testing Additive Effects

Subset: Contains predictors from step 1 (i.e., CFQ 26 and 28 = 'Disagree' and CEBQ 34 > 'Rarely' - 11 rules)

- \bullet 39 rules were identified
- \bullet 9 rules had ORs that exceed the single predictor OR

Table 14: Determinants of LOC-Significant Additive

LHS2	LHS1	oddsRatio	OR_lowerCI	OR_upperCI	fisher.p	fisher.padj_holm	Cluster_gupta4	Cat1
cebq12_gRarely	cfq26=Disagree	5.000	2.166	11.541	0.000	0.005	2	lsPE
$cebq14_gRarely$	cfq26=Disagree	6.458	2.834	14.717	0.000	0.000	2	lsPE
$cebq14_gRarely$	$cebq7_gSometimes$	4.920	1.999	12.108	0.001	0.009	4	gS_FF
$cebq19_gRarely$	cfq26=Disagree	7.510	3.305	17.066	0.000	0.000	1	lsPE
$cebq26_lsSometimes$	cfq26=Disagree	5.578	2.424	12.837	0.000	0.002	2	lsPE
$cebq26_lsSometimes$	$cebq12_gRarely$	7.651	2.858	20.483	0.000	0.002	2	gR_FR
$cebq27_gRarely$	cfq26=Disagree	6.628	2.954	14.872	0.000	0.000	1	lsPE
$cebq27_gSometimes$	cfq26=Disagree	8.821	3.185	24.436	0.000	0.001	2	lsPE
$cebq30_lsSometimes$	$cebq12_gRarely$	4.500	1.854	10.925	0.001	0.009	4	gR_FR
$cebq33_gSometimes$	$BreastFed_ls7mo$	6.193	2.552	15.030	0.000	0.002	3	$BreastFed_ls7mc$
$cebq33_gSometimes$	$cebq1_gSometimes$	6.921	2.864	16.723	0.000	0.001	2	gS_EF
$cebq33_gSometimes$	cfq28 = Disagree	12.567	4.095	38.560	0.000	0.000	1	lsPE
$cebq33_gSometimes$	$cebq14_gRarely$	4.920	1.999	12.108	0.001	0.009	4	gR_FR
$cebq33_gSometimes$	$cebq22_gSometimes$	6.013	2.360	15.316	0.000	0.005	3	gS_EF
$cebq34_gRarely$	$cebq20_gSometimes$	4.920	1.999	12.108	0.001	0.009	4	gS_EF
$cebq34_gRarely$	cfq26=Disagree	11.104	4.058	30.383	0.000	0.000	1	lsPE
$cebq34_gRarely$	$cAge_7.9yr$	4.500	1.854	10.925	0.001	0.009	4	$cAge_7.9yr$
$cebq34_gRarely$	$cebq13_lsSometimes$	4.920	1.999	12.108	0.001	0.009	4	lsS_EOE
$cebq34_gRarely$	$cebq25_lsSometimes$	6.013	2.360	15.316	0.000	0.005	3	lsS_EUE
$cebq34_gRarely$	cfq28=Disagree	8.598	3.235	22.853	0.000	0.001	2	lsPE
$cebq34_gRarely$	$cebq5_gSometimes$	6.193	2.552	15.030	0.000	0.002	2	gS_EF
$cebq34_gRarely$	$cebq22_gSometimes$	4.818	2.059	11.277	0.000	0.007	3	gS_EF
$cebq7_gSometimes$	$cebq1_gSometimes$	6.818	2.765	16.816	0.000	0.001	2	gS_EF
$cfq20_gNeutralAD$	$cebq34_gRarely$	4.500	1.854	10.925	0.001	0.009	4	gR_FR
$cfq21_lsNeutralAD$	cfq20=Agree	6.757	2.673	17.081	0.000	0.002	2	gRest
$cfq23_lsNeutralAD$	cebq21_gRarely	6.013	2.360	15.316	0.000	0.005	4	gR_SR
$cfq23$ _lsNeutralAD	$cfq14_lsNeutralCon$	4.652	1.955	11.071	0.001	0.009	3	lsN_Conc
$cfq23$ _lsNeutralAD	cfq14=Unconcerned	4.920	1.999	12.108	0.001	0.009	2	lsConc
$cfq23$ _lsNeutralAD	$cAge_7.9yr$	5.057	2.100	12.178	0.000	0.007	3	$cAge_7.9yr$
$cfq26_lsNeutralAD$	$cebq7_gSometimes$	5.057	2.100	12.178	0.000	0.007	3	gS_FF
cfq26_lsNeutralAD	cebq33_gSometimes	5.057	2.100	12.178	0.000	0.007	3	gS_FF
cfq26_lsNeutralAD	cebq34_gRarely	6.921	2.864	16.723	0.000	0.001	2	gR_FR
								-

Table 14: Determinants of LOC-Significant Additive (continued)

LHS2	LHS1	oddsRatio	OR_lowerCI	OR_upperCI	fisher.p	fisher.padj_holm	Cluster_gupta4	Cat1
cfq26=Disagree	cBMI_OWOB	5.529	2.265	13.499	0.000	0.005	3	cBMI_OWOB
cfq26=Disagree	cfq20=Agree	6.330	2.656	15.084	0.000	0.001	2	gRest
cfq26=Disagree	mBMI_OBOW	4.500	1.854	10.925	0.001	0.009	4	mBMI_OBOW
cfq27_lsNeutralAD	cebq34_gRarely	9.913	3.604	27.269	0.000	0.000	$\frac{3}{2}$	gR_FR
cfq28_lsNeutralAD	cebq33_gSometimes	6.087	2.454	15.101	0.000	0.003		gS_FF
cfq28_lsNeutralAD	cebq34_gRarely	6.330	2.656	15.084	0.000	0.001		gR_FR
cfq28_lsNeutralAD	cebq7_gSometimes	6.757	2.673	17.081	0.000	0.002		gS_FF

CEBQ 12 > Rarely (FR) + CFQ 26 = Dissagree (PE)

Table 15: Determinants of LOC: CEBQ 12 > Rarely (FR) + CFQ 26 = Dissagree (PE))

	Beta	SE	Z	P	e^beta	e^se
cebq12_gRarelyTRUE cfq26 DisagreeTRUE			$0.506 \\ 2.136$		1.474 4.053	
cebq12_gRarelyTRUE:cfq26_DisagreeTRUE		0.000		0.000		

CEBQ 33 > Sometimes (FF) + Breastfeeding < 7 mo

Table 16: Determinants of LOC: CEBQ 33 > Sometimes (FF) + Breastfeeding < 7 mo

	Beta	SE	Z	Р	e^beta	e^se
$cebq33_gSometimesTRUE$	-0.665	0.864	-0.770	0.442	0.514	2.373
$BreastFed_ls7moTRUE$	-0.427	0.535	-0.797	0.425	0.653	1.707
$cebq33_gSometimesTRUE:BreastFed_ls7moTRUE$	2.665	1.001	2.661	0.008	14.362	2.722

CEBQ 33 >Sometimes (FF) + CEBQ 1 >Sometimes (EF)

Table 17: Determinants of LOC: CEBQ 33 > Sometimes (FF) + CEBQ 1 > Sometimes (EF)

	Beta	SE	Z	Р	e^beta	e^se
cebq33_gSometimesTRUE	-1.473	1.129	-1.305	0.192	0.229	3.093
$cebq1_gSometimesTRUE$	-0.398	0.551	-0.724	0.469	0.671	1.734
$cebq33_gSometimesTRUE: cebq1_gSometimesTRUE$	3.459	1.229	2.813	0.005	31.776	3.419

CFQ 28 = Disagree (PE) + CEBQ 33 > Sometimes (FF)

Table 18: Determinants of LOC: CFQ 28 = Disagree (PE) + CEBQ 33 > Sometimes (FF)

	Beta	SE	Z	Р	e^beta	e^se
$cebq33_gSometimesTRUE$	0.185	0.686	0.269	0.788	1.203	1.986
$cfq28_DisagreeTRUE$	0.514	0.525	0.980	0.327	1.672	1.690
$cebq33_gSometimesTRUE:cfq28_DisagreeTRUE$	1.999	0.925	2.162	0.031	7.384	2.521

CEBQ 34 > Rarely (FR) + CFQ 28 = Dissagree (PE)

Table 19: Determinants of LOC: CEBQ 34 > Rarely (FR) + CFQ 28 = Dissagree (PE)

	Beta	SE	${f z}$	P	e^beta	e^se
cebq34_gRarelyTRUE	-0.031	0.850	-0.036	0.971	0.970	2.340
$cfq28_DisagreeTRUE$	0.521	0.492	1.061	0.289	1.684	1.635
$cebq34_gRarelyTRUE:cfq28_DisagreeTRUE$	1.743	1.014	1.718	0.086	5.715	2.758

CEBQ 7 > Sometimes (FF) + CEBQ 1 > Sometimes (EF)

Table 20: Determinants of LOC: CEBQ 7 > Sometimes (FF) + CEBQ 1 > Sometimes (EF)

	Beta	SE	Z	Р	e^beta	e^se
$cebq7_gSometimesTRUE$	-0.598	0.899	-0.665	0.506	0.550	2.457
$cebq1_gSometimesTRUE$	-0.087	0.571	-0.152	0.879	0.917	1.770
$cebq7_gSometimesTRUE: cebq1_gSometimesTRUE$	2.477	1.023	2.421	0.015	11.901	2.781

${\rm CFQ}\ 21 = {\rm Agree}\ ({\rm Restrict}) + {\rm CFQ}\ 21 < {\rm Neutral}\ ({\rm Restrict})$

Table 21: Determinants of LOC: CFQ 21 = Agree (Restrict) + CFQ 21 < Neutral (Restrict)

	Beta	SE	\mathbf{z}	P	e^beta	e^se
LOC_arules\$cfq20_AgreeTRUE	-0.214	0.652	-0.328	0.743	0.807	1.919
$cfq21_lsNeutralADTRUE$	-0.119	0.542	-0.219	0.827	0.888	1.720
$LOC_arules\$cfq20_AgreeTRUE:cfq21_lsNeutralADTRUE$	1.981	0.842	2.353	0.019	7.251	2.321

CEBQ 34 > Rarely (FR) + CFQ 27 < Neutral (PE)

Table 22: Determinants of LOC: CEBQ 34 > Rarely (FR) + CFQ 27 < Neutral (PE)

	Beta	SE	Z	P	e^beta	e^se
$cebq34_gRarelyTRUE$	-0.811	0.835	-0.971	0.332	0.444	2.306
$cfq27_lsNeutralADTRUE$	-0.811	0.494	-1.641	0.101	0.444	1.639
$cebq34_gRarelyTRUE:cfq27_lsNeutralADTRUE$	3.296	1.021	3.229	0.001	27.000	2.775

CEBQ 7 > Sometimes (FF) + CFQ 28 < Neutral (PE)

Table 23: Determinants of LOC: CEBQ 7 > Sometimes (FF) + CFQ 28 < Neutral (PE)

	Beta	SE	Z	Р	e^beta	e^se
$cebq7_gSometimesTRUE$	1.455	1.206	1.207	0.228	4.286	3.340
$cfq28_lsNeutralADTRUE$	1.829	1.058	1.729	0.084	6.230	2.880
$cebq7_gSometimes TRUE: cfq28_ls Neutral ADTRUE$	0.048	1.302	0.037	0.971	1.049	3.676

5 Determinants of No LOC-eating

5.1 Step 1: Single Predictor

Confidence = 0.33

Support = 0.19 (25%, n = 30)

Identified 107 rules were identified

- 1 had $\kappa > 0.20$
- \bullet 34 had added value ≥ 0.05
- \bullet the 1 remaining rule was significant

Table 24: Determinants of No LOC-Single Predictors

LHS	count	support	confidence	lift	addVal	kappa	oddsRatio	fisher.padj_holm	Cat
cebq34_lsSometimes	102	0.646	0.829	1.083	0.063	0.281	4.09	0.001	lsS_FR

5.2 Step 2: Multiple Predictors

 ${\rm Confidence} = 0.50$

Support = 0.255 (33%, n = 40)

Found 1335 rules were identified

- 11 had $\kappa > 0.20$
- \bullet 678 had added value ≥ 0.05
- \bullet of the remaining 11 rules that met both criteria, all were significant after correction

Table 25: Determinants of No LOC-Multiple Predictors

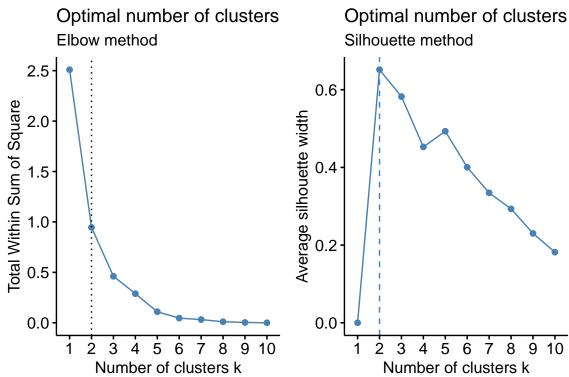
LHS2	LHS1	count	support	confidence	lift	addVal	kappa	oddsRatio	$fisher.padj_holm$	Cluster_gupta2
	cebq34_lsSometimes	102	0.646	0.829	1.083	0.063	0.281	4.090	0.006	2
$cebq34_lsSometimes$	cBMI=HW	80	0.506	0.851	1.111	0.085	0.226	3.206	0.006	2
$cebq34_lsSometimes$	$cebq1_gRarely$	99	0.627	0.832	1.086	0.066	0.273	3.825	0.006	2
$cebq34_lsSometimes$	$cebq14_lsSometimes$	67	0.424	0.882	1.151	0.116	0.218	3.860	0.006	2
$cebq34_lsSometimes$	$cebq15_lsSometimes$	93	0.589	0.830	1.084	0.065	0.235	3.147	0.006	2
$cebq34_lsSometimes$	$cebq20_gRarely$	93	0.589	0.838	1.094	0.072	0.258	3.506	0.006	2
$cebq34_lsSometimes$	$cebq13_lsSometimes$	92	0.582	0.836	1.092	0.071	0.248	3.349	0.006	2
$cebq34_lsSometimes$	$cebq5_gRarely$	97	0.614	0.836	1.092	0.070	0.275	3.829	0.006	2
$cebq34_lsSometimes$	$cebq8_gRarely$	81	0.513	0.862	1.125	0.096	0.254	3.738	0.005	2
$cebq34_lsSometimes$	$income_g50K$	61	0.386	0.897	1.171	0.131	0.210	4.357	0.005	1
${\tt cebq34_lsSometimes}$	$income_g75K$	61	0.386	0.897	1.171	0.131	0.210	4.357	0.005	1

Category frequencies for uncorrected rules

Table 26: Determinants of No LOC-Cross Tab Mulitple Predictors

	lsS_FR
cBMI=HW	1
gR_EF	3
gR_SE	1
$income_g50K$	1
$income_g75K$	1
lsS_EOE	2
lsS_FR	1

5.3 Clustering



Plot of cluster metrics

Cluster Metrics

Table 27: Determinants of No LOC-Cluster Metrics

·			
measure	$score_at3$	method	clusters
Connectivity	5.7579	pam	2
Dunn	\inf	pam	10
Silhouette	0.6516	pam	2
APN	0	pam	5
AD	0	pam	10
ADM	0	pam	5
FOM	0	pam	10

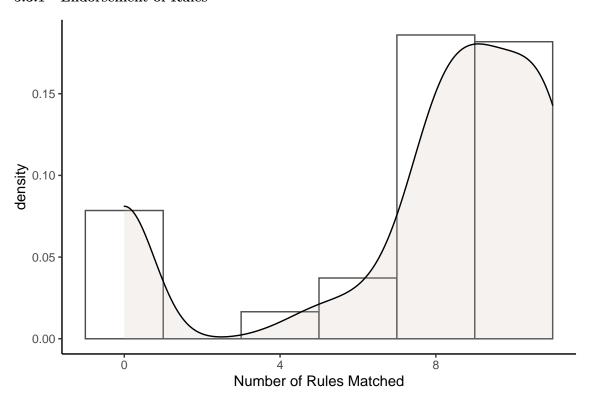
Number of clusters:

- 2: connectivity and silhouette width, Within Sums Squares elbow
- 5: Dunn Index, APN, ADM>

Table 28: Determinants of NO LOC-Clusters

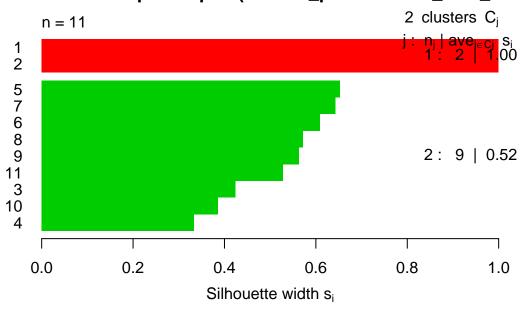
$Cluster_gupta2$	Freq
1	2
2	9

5.3.1 Endorsement of Rules



5.3.2 2 Cluster Solution

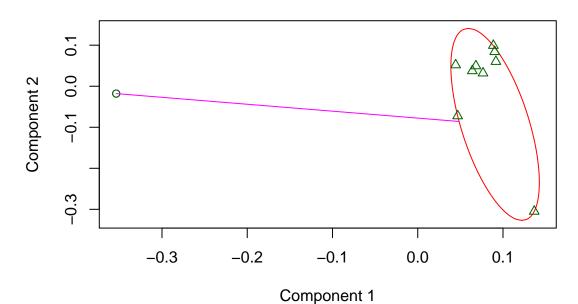
Silhouette plot of pam(x = dist_pruned.rules_lhs2_conf5



Average Silhouette Widths

Average silhouette width: 0.61

Cluster plot, k = 3



Cluster Plot

Cluster 1

These two components explain 75.22 % of the point variability.

Table 29: Determinants of NO LOC-Cluster 1

	$income_g50K$	$income_g75K$	rowtotals
lsS_FR	1	1	2
coltotals	1	1	2

Table 30: Determinants of NO LOC-Cluster 1 Question Frequency

LHS1	Freq
income_g50K	1
income_g75K	1

Cluster 2

Table 31: Determinants of NO LOC-Cluster 2

	lsS_FR	rowtotals
cBMI=HW	1	1
gR_EF	3	3
gR_SE	1	1
lsS_EOE	2	2
lsS_FR	1	1
coltotals	8	8

Table 32: Determinants of NO LOC-Cluster 2 Question Frequency

LHS1	Freq
cBMI=HW	1
$cebq1_gRarely$	1
$cebq13_lsSometimes$	1
$cebq14_lsSometimes$	1
$cebq15_lsSometimes$	1
$cebq20_gRarely$	1
$cebq34_lsSometimes$	1
$cebq5_gRarely$	1
$cebq8_gRarely$	1

5.4 Testing Additive Effects

Subset: Contains predictor from step 1

- \bullet all 11 rules contained the significant predictor from step 1
- ullet all were signficant
- \bullet none showed greater OR than single predictor

Table 33: Determinants of No LOC-Additive Effect OR Comparisons

LHS2	LHS1	oddsRatio	$OR_lowerCI$	OR_upperCI	fisher.p	$fisher.padj_holm$	$Cluster_gupta2$	Cat1
cebq34_lsSometimes	cBMI=HW	3.206	1.494	6.879	0.002	0.006	2	cBMI=HW
$cebq34_lsSometimes$	$cebq1_gRarely$	3.825	1.728	8.467	0.001	0.006	2	gR_EF
$cebq34_lsSometimes$	$cebq14_lsSometimes$	3.860	1.680	8.872	0.001	0.006	2	lsS_FR
$cebq34_lsSometimes$	$cebq15_lsSometimes$	3.147	1.456	6.801	0.003	0.006	2	lsS_EOE
$cebq34_lsSometimes$	$cebq20_gRarely$	3.506	1.622	7.578	0.001	0.006	2	gR_EF
$cebq34_lsSometimes$	$cebq13_lsSometimes$	3.349	1.554	7.218	0.002	0.006	2	lsS_EOE
$cebq34_lsSometimes$	$cebq5_gRarely$	3.829	1.748	8.390	0.001	0.006	2	gR_EF
$cebq34_lsSometimes$	$cebq8_gRarely$	3.738	1.724	8.106	0.001	0.005	2	gR_SE
$cebq34_lsSometimes$	$income_g50K$	4.357	1.778	10.680	0.000	0.005	1	$income_g50K$
$cebq34_lsSometimes$	$income_g75K$	4.357	1.778	10.680	0.000	0.005	1	$income_g75K$

6 Determinants of Absence of LOC in High Risk Sample

• There were 70 with at least 1 High Risk characteristic: cebq34_gRarely, mEducation_HS, cfq23_lsNeutralAD • no LOC n = 42 (35% of no LOC); LOC n = 28 (76% of LOC)

6.1 Step 1: Single Predictor

- Confidence = 0.33
- Support = 0.14 (25%, n = 10)

137 rules were identified

- 6 had $\phi \ge 0.20$
- 74 had added value ≥ 0.05
- of the remaining 7 rules that met both criteria, none were significant after correction
- of the remaining 7 rules that met both criteria, 6 were significant with no correction

Table 34: Determinants of Absence of LOC in High Risk Sample

LHS	RHS	count	support	confidence	coverage	lift	addVal	kappa	${\rm oddsRatio}$	$OR_lowerCI$	$OR_upperCI$	fisher.p
cebq34_lsSometimes	loc1=No	102	0.646	0.829	0.778	1.083	0.063	0.281	4.09	1.812	9.233	0.001

6.2 Step 2: Multiple Predictors

- \bullet Confidence = 0.50
- Support = 0.20 (33%, n = 14)

2589 rules were identified

- 257 had $\phi \geq 0.10$
- \bullet 1855 had added value ≥ 0.05
- of the remaining 257 rules that met both criteria, 1 was significant after correction
- \bullet of the remaining 257 rules that met both criteria, 226 were significant with no correction

Table 35: Determinants of Absence of LOC in High Risk Sample

	LHS2	LHS1	RHS	count	support	confidence	coverage	lift	addVal	kappa	odds Ratio	$OR_lowerCI$	OF
127	$cebq6_gRarely$	cebq7=Sometimes	loc1=No	15	0.214	1	0.214	1.667	0.4	0.308	NA	NaN	

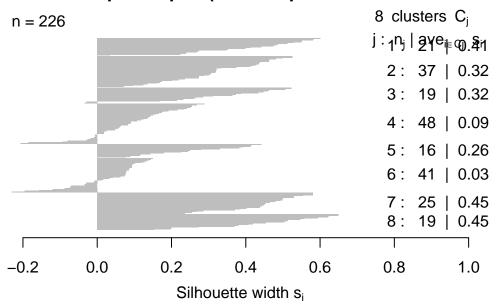
6.3 Clustering

Number of clusters:

- 7: Connectivity, Average Proportion of Non-Overlap, and Average distance between centers
- 10: Dunn, Average Distance, Average Proportion of Non-Overlap, and Average distance between center

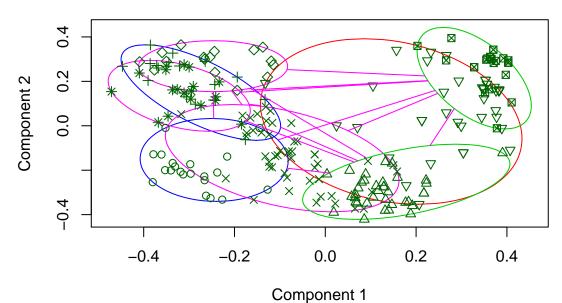
6.4 3 Cluster Solution

Silhouette plot of pam(x = dist_pruned.rules_lhs2_conf5



 $_{\rm Average\ Silhouette\ Widths}$ Average silhouette width : 0.25

Cluster plot, k = 8



These two components explain 25.54 % of the point variability.

Cluster Plot Cluster 1

Table 36: Determinants of NO LOC in High Risk Sample-Cluster 1

	BreastFed_ls10mo	mEducation_gHS	PCW_UW	sFF	rowtotals
gR_DD	0	0	0	1	1
$ m gR_EUE$	0	0	1	2	3
gR_FF	0	0	0	2	2
gR_SE	0	0	0	1	1
gR_SR	0	0	0	1	1
gS_EF	0	0	0	1	1
gS_PR	0	0	0	1	1
lsS_EOE	0	0	0	2	2
PCW_avg	0	0	0	1	1
PCW_UW	0	0	0	1	1
PPW_UW	0	0	0	3	3
sFF	1	1	0	1	3
coltotals	1	1	1	17	20

Table 37: Determinants of NO LOC in High Risk Sample-Cluster 1 Question Frequency

LHS1	Freq
BreastFed_ls10mo	1
cebq10=Sometimes	4
cebq7=Sometimes	14

Table 37: Determinants of NO LOC in High Risk Sample-Cluster 1 Question Frequency (continued)

LHS1	Freq
cfq9=Avg	1
$mEducation_gHS$	1

Cluster 2

Table 38: Determinants of NO LOC in High Risk Sample-Cluster $2\,$

	gR_EF	gR_FR	gR_SR	lsEOE	lsS_SE	mEducation_gHS	sFR	sSR	rowtotals
gH_PR	0	0	0	0	0	0	0	3	3
gN_Conc	0	0	1	0	0	0	0	0	1
gN_Rest	0	0	1	0	0	0	0	0	1
gR_DD	0	0	1	0	0	0	0	2	3
gR_EF	0	0	0	0	0	0	0	2	2
gR_EUE	0	0	0	0	0	0	0	1	1
gR_FF	0	0	0	0	0	0	0	2	2
gR_FR	0	0	0	0	0	0	0	3	3
gR_SR	1	1	0	2	1	0	1	1	7
gS_EF	0	0	0	0	0	0	0	2	2
gS_PR	0	0	1	0	0	0	0	1	2
lsS_EOE	0	0	0	0	0	0	0	2	2
lsS_SE	0	0	0	0	0	0	0	1	1
PCW_UW	0	0	0	0	0	0	0	1	1
PPW_UW	0	0	0	0	0	0	0	1	1
sSR	0	0	0	3	0	1	0	0	4
coltotals	1	1	4	5	1	1	1	22	36

Table 39: Determinants of NO LOC in High Risk Sample-Cluster 2 Question Frequency

LHS1	Freq
cebq13=Rarely	1
cebq15=Rarely	2
$cebq18_lsSometimes$	1
$cebq19_gRarely$	1
cebq2=Rarely	2
$cebq20_gRarely$	1
$cebq26_gRarely$	4
cebq26=Sometimes	23
cebq34=Sometimes	1
mEducation_gHS	1

Cluster 3

Table 40: Determinants of NO LOC in High Risk Sample-Cluster 3

	BreastFed_ls10mo	cBMI=HW	gEF	lsS_FR	PPW_avg	PPW_UW	sSR	rowtotals
gN_Rest	0	0	0	0	0	1	0	1
gR_DD	0	0	0	0	0	1	0	1
gR_EF	0	0	0	0	0	1	0	1
gR_FF	0	0	0	0	0	1	0	1
gR_SE	0	0	0	0	0	1	0	1
gR_SR	0	0	0	0	0	1	0	1
gS_EF	0	0	0	0	0	1	0	1
gS_PR	0	0	0	0	0	1	0	1
lsN_PE	0	0	0	1	0	1	0	2
lsS_EOE	0	0	0	0	0	1	0	1
PPW_UW	1	2	1	0	1	1	1	7
coltotals	1	2	1	1	1	11	1	18

Table 41: Determinants of NO LOC in High Risk Sample-Cluster 3 Question Frequency

LHS1	Freq
BreastFed_ls10mo	1
cBMI=HW	2
cebq17=Sometimes	1
$cebq19_lsSometimes$	1
cebq20=Often	1
cfq5=Avg	1
cfq6=Avg	12

Cluster 4

Table 42: Determinants of NO L

	$BreastFed_ls10mo$	BreastFed_ls4mo	$cAge_9.10yr$	$cAge_9.12yr$	gEF	gH_PR	gR_DD	gR_E
gH_PR	0	0	1	1	0	0	2	
gN_Conc	0	0	0	0	0	1	1	
gN_Rest	0	0	0	0	0	0	1	
gR_DD	2	1	0	0	1	0	0	
gR_EF	1	0	0	0	0	0	1	
gR_FR	0	0	0	0	0	0	1	
gR_SE	0	0	0	0	0	0	2	
gR_SR	0	0	0	0	0	0	1	
gS_PR	1	0	0	0	0	0	2	
lsS_EOE	1	0	0	0	0	0	0	
lsS_FF	0	0	1	1	0	0	0	
lsS_SE	0	0	0	0	1	0	1	
PCW_UW	1	0	0	0	0	0	0	

Table 42: Determinants of NO LOC in

	$BreastFed_ls10mo$	$BreastFed_ls4mo$	$cAge_9.10yr$	$cAge_9.12yr$	gEF	gH_PR	gR_DD	gR_El
PPW_gOW	0	0	0	0	0	0	1	
coltotals	6	1	2	2	2	1	13	

Table 43: Determinants of NO LOC in High Risk Sample-Cluster 4 Question Frequency

LHS1	Freq
BreastFed ls10mo	6
BreastFed_ls4mo	1
$cAge_9.10yr$	2
$cAge_9.12yr$	2
$cebq1_gSometimes$	2
cebq10=Sometimes	1
cebq15=Rarely	3
$cebq18_lsSometimes$	5
$cebq20_gRarely$	2
cebq20=Often	2
cebq28_gRarely	1
$cebq28_gSometimes$	1
$cebq31_gRarely$	1
$cebq6_gRarely$	12
cebq6=Sometimes	1
cfq10=Avg	1
$cfq2_gHalf$	1
cfq5=Avg	1
cfq9=Avg	1
mEducation_gHS	2

Cluster 5

Table 44: Determinants of NO LOC in High Risk Sample-Cluster $5\,$

	$cBMI{=}HW$	gEF	gR_EF	gR_FR	gS_EF	lsS_EOE	lsS_FR	PCW_UW	rowtotals
BreastFed_ls10mo	1	0	0	0	0	0	0	0	1
$_{ m gEF}$	2	0	0	0	0	0	0	0	2
lsN_PE	1	0	0	0	0	2	1	0	4
lsN_Rest	0	2	1	1	1	0	0	2	7
lsS_FR	0	1	0	0	1	0	0	0	2
coltotals	4	3	1	1	2	2	1	2	16

Table 45: Determinants of NO LOC in High Risk Sample-Cluster 5 Question Frequency

LHS1	Freq
cBMI=HW	4
$cebq20_gRarely$	1
cebq20=Often	1
$cebq27_lsSometimes$	2
$cebq28_gRarely$	1
$cebq34_lsSometimes$	1
$cebq5_gSometimes$	2
cebq5 = Often	2
cfq10=Avg	1
cfq9=Avg	1

Cluster 6

Table 46: Determin

	$BreastFed_ls10mo$	$BreastFed_ls7mo$	$cAge_9.10yr$	$cAge_9.12yr$	$\mathrm{cBMI}\mathrm{=}\mathrm{HW}$	gEF	gMon	gR_I
gH_PR	0	0	0	0	0	0	0	
gN_Rest	0	0	0	0	0	0	0	
gR_EUE	0	0	0	0	1	0	0	
gR_Mon	0	0	0	0	0	0	0	
gR_SR	1	1	1	1	1	1	2	
gS_FR	0	0	0	0	0	0	0	
gS_Mon	0	0	0	0	0	0	0	
gS_PR	0	0	0	0	0	0	1	
PPW_gOW	0	0	0	0	0	0	0	
$_{ m sEUE}$	1	0	0	0	0	0	0	
coltotals	2	1	1	1	2	1	3	

Table 47: Determinants of NO LOC in High Risk Sample-Cluster 6 Question Frequency

LHS1	Freq
$BreastFed_ls10mo$	2
$BreastFed_ls7mo$	1
$cAge_9.10yr$	1
$cAge_9.12yr$	1
cBMI=HW	2
cebq11_gRarely	1
$cebq11_gSometimes$	1
$cebq15_lsSometimes$	1
$cebq18_lsSometimes$	1
$cebq19_gRarely$	1
$cebq2_lsSometimes$	1

Table 47: Determinants of NO LOC in High Risk Sample-Cluster 6 Question Frequency (continued)

LHS1	Freq
cebq20_gRarely	1
$cebq20_gSometimes$	1
cebq20=Often	1
$cebq23_gRarely$	2
$cebq26_gRarely$	4
$cebq28_gSometimes$	1
$cebq30_gRarely$	8
$cebq5_gRarely$	1
$cebq6_gRarely$	2
$cebq9_gRarely$	1
cfq11=Avg	1
cfq29=Mostly	1
cfq30=Mostly	2
cfq5=Avg	1
cfq6=Avg	1

Cluster 7

Table 48: Determinants of NO LOC in High Risk Sample-Cluster 7

	BreastFed_ls10mo	lsEOE	lsFF	sSR	rowtotals
gR_DD	0	0	0	1	1
gR_EF	0	0	0	2	2
gR_FR	0	0	0	1	1
gR_Mon	0	0	0	2	2
gR_SR	0	0	0	1	1
gS_EF	0	0	0	3	3
gS_Mon	0	0	0	2	2
gS_PR	0	0	0	1	1
lsS_EOE	0	0	0	3	3
lsS_FF	0	0	0	1	1
PCW_avg	0	0	0	1	1
PPW_avg	0	0	0	1	1
PPW_UW	0	0	0	1	1
sSR	1	1	1	1	4
coltotals	1	1	1	21	24

Table 49: Determinants of NO LOC in High Risk Sample-Cluster 7 Question Frequency

LHS1	Freq
BreastFed_ls10mo	1
cebq2=Rarely	1

Table 49: Determinants of NO LOC in High Risk Sample-Cluster 7 Question Frequency (continued)

LHS1	Freq
cebq24=Rarely	1
cebq26=Sometimes	1
cebq30=Sometimes	21

Cluster 8

Table 50: Determinants of NO LOC in High Risk Sample-Cluster 8

	BreastFed_ls10mo	cBMI=HW	gEF	gR_SE	sSE	rowtotals
gEF	0	0	0	0	1	1
gR_DD	0	0	0	0	1	1
gR_EF	0	0	0	0	1	1
gR_FR	0	0	0	0	1	1
gR_SE	1	0	0	0	0	1
gS_EF	0	0	0	0	1	1
gS_PR	0	0	0	0	1	1
lsS_EOE	0	0	0	0	2	2
lsS_SE	0	0	0	1	1	2
PCW_UW	0	0	0	0	1	1
PPW_avg	0	0	0	0	1	1
PPW_UW	0	0	0	0	3	3
sSE	0	1	1	0	0	2
coltotals	1	1	1	1	14	18

Table 51: Determinants of NO LOC in High Risk Sample-Cluster 8 Question Frequency

LHS1	Freq
BreastFed_ls10mo	1
cBMI=HW	1
cebq1=Often	1
$cebq8_gRarely$	1
${\it cebq8}{=}{\it Sometimes}$	15