## ${\bf S1}$ Table. Summary of modifications to LESCA items.

Q	Original	Students	Non-students
19	Beginning a new school	Beginning a new school	Beginning a new work
	experience (beginning college,	experience (beginning	experience
	transferring college etc)	university, transferring	
		university etc)	
21	Academic probation /	No change	Removed
	ineligibility		
22	Being dismissed from dorm or	Being dismissed from halls or	Being asked to vacate
	other residence	other residence	house/home
27	Financial problems concerning	No change	Financial problems
	school		
29	Conflict with room-mate	No change	Conflict within household
36	Suspended from team for	No change	Removed
	non-academic reasons		
49	Being absent from school	Being absent from university	Being absent from work
	(classes) because of	(classes) because of	because of participation in
	participation in sport	participation in sport	sport
61	Major change in level of	No change	Major change in level of
	academic performance (doing		performance at work (doing
	better or worse)		better or worse)
62	Making career decisions	Making career decisions	Making career decisions
	(applying to graduate	(applying for Masters degree,	(applying for Masters degree,
	school,interviewing for jobs,	interviewing for jobs, etc)	interviewing for jobs, etc)
	etc)		

 ${\bf S2}$  Table. All arc strengths greater than  ${\bf 0.3}$  included in the first network.

nlebase     NLE_1     1.00     1.00       nlebase     NLE_2     1.00     1.00       NLE_1     injured_1     1.00     1.00       NLE_2     injured_2     1.00     1.00       BIS_1     FFFS_1     0.98     0.70       FFFS_1     BIS_1     0.98     0.30       ind_team     hours     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.29       gender     stiffness_1     0.57     1.00       NLE_1     BIS_2     0.74     0.29       gender     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_1	from	to	strength	direction
NLE_1     injured_1     1.00     1.00       NLE_2     injured_2     1.00     1.00       BIS_1     FFFS_1     0.98     0.70       FFFS_1     BIS_1     0.98     0.30       ind_team     hours     0.94     0.50       hours     ind_team     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       BIS_2     0.74     0.29       gender     stiffness_1     0.57     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_2     0.57     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.36       stiffness_1	nlebase	NLE 1	_	
NLE_2     injured_2     1.00     1.00       BIS_1     FFFS_1     0.98     0.70       FFFS_1     BIS_1     0.98     0.30       ind_team     hours     0.94     0.50       hours     ind_team     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.29       gender     stiffness_1     0.71     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2	nlebase	NLE 2	1.00	1.00
NLE_2     injured_2     1.00     1.00       BIS_1     FFFS_1     0.98     0.70       FFFS_1     BIS_1     0.98     0.30       ind_team     hours     0.94     0.50       hours     ind_team     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.29       gender     stiffness_1     0.71     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2	NLE 1	injured 1	1.00	1.00
BIS_1     FFFS_1     0.98     0.70       FFFS_1     BIS_1     0.98     0.30       ind_team     hours     0.94     0.50       hours     ind_team     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.71       FFFS_2     BIS_2     0.74     0.29       gender     stiffness_1     0.71     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.93       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     0.46     0.66     stiffness_2     0.46     0.66       stiffness_2     0.46     0.64     0.64     0.64     0.64     0.64       gender     stiffness_1     0.46     0.64     0.64     0.6	NLE 2			
FFFS_1     BIS_1     0.98     0.30       ind_team     hours     0.94     0.50       hours     ind_team     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.71       FFFS_2     BIS_2     0.74     0.29       gender     stiffness_1     0.57     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.97       BIS_2     0.52     1.00       injured_2     0.46     0.66       stiffness_2     0.46     0.36       stiffness_1     0.46     0.36       sti	BIS 1			
ind_team     hours     0.94     0.50       hours     ind_team     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.71       FFFS_2     BIS_2     0.74     0.29       gender     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_1     injured_2     0.42     1.00       hours     stiffness_2     0.43     1.00		_		
hours     ind_team     0.94     0.50       nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.71       FFFS_2     BIS_2     0.74     0.29       gender     stiffness_1     0.71     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.36       stiffness_2     injured_1     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00	ind team			
nlebase     RI_1     0.84     1.00       ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.71       FFFS_2     BIS_2     0.74     0.29       gender     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       hours     injured_2     0.42     1.00       nlebase     HRV_1     0.41     1.00 <td></td> <td></td> <td></td> <td></td>				
ind_team     nlebase     0.78     1.00       BIS_2     FFFS_2     0.74     0.71       FFFS_2     BIS_2     0.74     0.29       gender     stiffness_1     0.71     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_2     0.43     1.00       fFFS_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       fFFS_1     injured_1     0.42     1.00       hours     injured_1     0.42     1.00	nlebase	RI 1		1.00
BIS_2     FFFS_2     0.74     0.71       FFFS_2     BIS_2     0.74     0.29       gender     stiffness_1     0.71     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_2     injured_1     0.46     0.36       stiffness_1     injured_1     0.46     0.36       stiffness_2     0.43     1.00       fers_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       hours     injured_1     0.42     1.00  <	ind team	nlebase		1.00
gender     stiffness_1     0.71     1.00       pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_2     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       HRV_1     0.40     1.00       HRV_1     0.40     1.00       helbase     HRV_2     0.37     0.89       NLE_2     BIS_2 <td>BIS 2</td> <td>FFFS 2</td> <td></td> <td>0.71</td>	BIS 2	FFFS 2		0.71
pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       nlebase     HRV_1     0.40     1.00       HRV_1     0.40     1.00       mijured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2	FFFS 2	BIS 2	0.74	0.29
pi     stiffness_1     0.57     1.00       NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.41     1.00       nlebase     HRV_1     0.40     1.00       HRV_1     NLE_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2 <t< td=""><td>gender</td><td>stiffness 1</td><td>0.71</td><td>1.00</td></t<>	gender	stiffness 1	0.71	1.00
NLE_1     BIS_1     0.55     0.97       BIS_1     NLE_1     0.55     0.03       FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_2     0.42     1.00       nlebase     HRV_1     0.41     1.00       nlebase     HRV_1     0.40     1.00       HRV_1     0.40     1.00       HRV_1     0.40     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     0.37     0.89       NLE_2     0.37     0.96       BIS_2     NLE_2     0.37     0.11 <		stiffness 1	0.57	1.00
FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.41     1.00       hours     HRV_1     0.41     1.00       helbase     HRV_1     0.40     1.00       HRV_1     NLE_2     0.37     0.89       NLE_2     0.37     0.89       NLE_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2		BIS 1	0.55	0.97
FFFS_1     BIS_2     0.52     1.00       clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.41     1.00       hours     HRV_1     0.41     1.00       HRV_1     0.40     1.00       HRV_1     0.40     1.00       HRV_1     0.40     1.00       gender     FFFS_1     0.37     0.89       NLE_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04 <				
clevel     balance_1     0.47     1.00       injured_2     stiffness_2     0.46     0.66       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       nlebase     HRV_1     0.40     1.00       gender     FFFS_1     0.37     0.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.36     0.41				
injured_2     stiffness_2     0.46     0.34       stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       hours     HRV_1     0.40     1.00       hours     HRV_1     0.40     1.00       hours     HRV_1     0.40     1.00       helbase     HRV_1     0.40     1.00       hRV_1     NLE_2     0.39     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.36     1.00	clevel	balance 1	0.47	1.00
stiffness_2     injured_2     0.46     0.34       injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       hRV_1     NLE_2     0.39     1.00       gender     FFFS_1     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.36     1.00       RI_1 <td>injured 2</td> <td></td> <td>0.46</td> <td>0.66</td>	injured 2		0.46	0.66
injured_1     stiffness_1     0.46     0.36       stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       hours     HRV_1     0.40     1.00       hours     HRV_1     0.40     1.00       hours     HRV_1     0.40     1.00       HRV_1     0.40     1.00       HRV_1     0.40     1.00       gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36		injured 2	0.46	0.34
stiffness_1     injured_1     0.46     0.64       gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       clevel     RI_2     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.70       balance_1 </td <td>injured 1</td> <td></td> <td>0.46</td> <td>0.36</td>	injured 1		0.46	0.36
gender     stiffness_2     0.43     1.00       FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       clevel     RI_2     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       HRV_1     0.40     1.00       HRV_1     0.40     1.00       HRV_1     0.40     1.00       gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     0.70		injured 1	0.46	0.64
FFFS_1     injured_2     0.42     1.00       hours     injured_1     0.42     1.00       clevel     RI_2     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       gender     FFFS_1     0.37     1.00       injured_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.30       injured_2     0.34	gender		0.43	1.00
clevel     RI_2     0.42     1.00       nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       HRV_1     NLE_2     0.39     1.00       gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.22       balance_1		injured_2	0.42	1.00
nlebase     HRV_1     0.41     1.00       hours     HRV_1     0.40     1.00       HRV_1     NLE_2     0.39     1.00       gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender	hours	injured_1	0.42	1.00
hours     HRV_1     0.40     1.00       HRV_1     NLE_2     0.39     1.00       gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi	clevel	RI_2	0.42	1.00
HRV_1     NLE_2     0.39     1.00       gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50	nlebase	HRV_1	0.41	1.00
gender     FFFS_1     0.37     1.00       injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50	hours	HRV_1	0.40	1.00
injured_2     HRV_2     0.37     0.89       NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	HRV_1	NLE_2	0.39	1.00
NLE_2     BIS_2     0.37     0.96       BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50	gender	FFFS_1	0.37	1.00
BIS_2     NLE_2     0.37     0.04       HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	injured_2	HRV_2	0.37	0.89
HRV_2     injured_2     0.37     0.11       pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	NLE_2	BIS_2	0.37	0.96
pi     NLE_2     0.36     1.00       RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	BIS_2	NLE_2	0.37	0.04
RI_1     BIS_1     0.36     0.41       BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	HRV_2	injured_2	0.37	0.11
BIS_1     RI_1     0.36     0.59       nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	pi	NLE_2	0.36	1.00
nlebase     RI_2     0.36     1.00       injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	RI_1	BIS_1	0.36	0.41
injured_1     balance_1     0.36     0.70       balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	BIS_1	RI_1	0.36	0.59
balance_1     injured_1     0.36     0.30       injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	nlebase	RI_2	0.36	1.00
injured_2     balance_2     0.34     0.94       balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	injured_1	balance_1	0.36	0.70
balance_2     injured_2     0.34     0.06       RI_1     balance_1     0.33     0.22       balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	balance_1	injured_1	0.36	0.30
RI_1   balance_1   0.33   0.22     balance_1   RI_1   0.33   0.78     gender   FFFS_2   0.33   1.00     pi   clevel   0.32   0.50     clevel   pi   0.32   0.50	injured_2	balance_2	0.34	0.94
balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	balance_2	injured_2		0.06
balance_1     RI_1     0.33     0.78       gender     FFFS_2     0.33     1.00       pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	RI_1	balance_1	0.33	0.22
pi     clevel     0.32     0.50       clevel     pi     0.32     0.50	balance_1			0.78
clevel pi 0.32 0.50	gender	FFFS_2	0.33	1.00
	pi	clevel	0.32	0.50
ind_team FFFS_1 0.31 1.00	clevel	pi	0.32	0.50
	ind_team	FFFS_1	0.31	1.00

S3 Table continued

from	to	strength	direction
BIS_1	FFFS_2	0.31	1.00
pi	ind_team	0.30	0.46
$ind\_team$	pi	0.30	0.54

 ${\bf S3}$  Table. All arc strengths greater than  ${\bf 0.3}$  included in the second network.

from	to	strength	direction
BIS	FFFS	1.00	0.76
FFFS	BIS	1.00	0.25
hours	injured	0.72	1.00
injured	stiffness	0.67	1.00
clevel	BIS	0.60	1.00
HRV	FFFS	0.58	0.69
FFFS	HRV	0.58	0.31
gender	stiffness	0.56	1.00
injured	nlec	0.45	1.00
pi	balance	0.43	1.00
pi	injured	0.38	1.00
stiffness	BIS	0.38	0.93
BIS	stiffness	0.38	0.07
RI	BIS	0.35	0.29
BIS	RI	0.35	0.71
pi	HRV	0.33	1.00

## S4 Table. Breakdown of injury count by sport and injury type (chronic or acute)

sport	acute	chronic
athletics	43.9% (18)	56.1% (23)
basketball	75.0% (6)	25.0% (2)
cricket	40.0% (4)	60.0% (6)
football	76.9% (20)	23.1% (6)
gym	25.0% (1)	75.0% (3)
hockey	88.9% (16)	11.1% (2)
netball	72.7% (8)	27.3% (3)
other	50.0% (3)	50.0% (3)
rugby	88.7% (47)	11.3% (6)

## S5 Table. Breakdown of injury count by sport and injury location

sport	foot / ankle	lower leg	knee	upper leg	hip	torso	upper arm / shoulder	elbow / lower arm	head / neck
athletics	36.6% (15)	14.6% (6)	9.8% (4)	17.1% (7)	7.3% (3)	9.8% (4)	4.9% (2)	0.0% (0)	0.0% (0)
basketball	25.0% (2)	0.0% (0)	12.5% (1)	0.0% (0)	0.0% (0)	37.5% (3)	25.0% (2)	0.0% (0)	0.0% (0)
cricket	0.0% (0)	10.0% (1)	20.0% (2)	30.0% (3)	0.0% (0)	30.0% (3)	0.0% (0)	10.0% (1)	0.0% (0)
football	15.4% (4)	7.7% (2)	15.4% (4)	26.9% (7)	0.0% (0)	0.0% (0)	15.4% (4)	3.8% (1)	15.4% (4)
gym	0.0% (0)	0.0% (0)	25.0% (1)	0.0% (0)	25.0% (1)	25.0% (1)	25.0% (1)	0.0% (0)	0.0% (0)
hockey	27.8% (5)	16.7% (3)	11.1% (2)	22.2% (4)	0.0% (0)	5.6% (1)	0.0% (0)	11.1% (2)	5.6% (1)
netball	36.4% (4)	0.0% (0)	27.3% (3)	9.1% (1)	9.1% (1)	9.1% (1)	9.1% (1)	0.0% (0)	0.0% (0)
other	16.7% (1)	0.0% (0)	16.7% (1)	0.0% (0)	0.0% (0)	50.0% (3)	16.7% (1)	0.0% (0)	0.0% (0)
rugby	18.9% (10)	3.8% (2)	26.4% (14)	17.0% (9)	5.7% (3)	1.9% (1)	17.0% (9)	0.0% (0)	9.4% (5)
Total	23.2% (41)	7.9% (14)	18.1% (32)	17.5% (31)	4.5% (8)	9.6% (17)	11.3% (20)	2.3% (4)	5.6% (10)

S6 Table. Probabilities of injury conditional on the variables in the Markov blanket for injured $\_1$ .

prob	clevel	hours	NLE_1	stiffness_1	balance_1
0.53	club_university_county	High	Low	High	High
0.46	national_international	High	Low	High	Low
0.44	national_international	High	Low	High	High
0.39	club_university_county	Low	High	High	High
0.37	club_university_county	High	Low	High	Low
0.32	national_international	Low	High	High	Low
0.32	club_university_county	High	High	High	High
0.31	club_university_county	High	High	Low	High
0.3	national_international	Low	High	High	High
0.29	club_university_county	Low	High	Low	High
0.25	national_international	High	High	High	Low
0.25	national_international	High	High	Low	Low
0.25	club_university_county	Low	High	High	Low
0.24	national_international	High	High	Low	High
0.24	national_international	High	High	High	High
0.24	national_international	Low	High	Low	Low
0.22	national_international	Low	High	Low	High
0.19	club_university_county	High	High	Low	Low
0.19	club_university_county	High	High	High	Low
0.18	club_university_county	Low	High	Low	Low
0.17	club_university_county	Low	Low	High	High
0.16	club_university_county	High	Low	Low	High
0.13	national_international	Low	Low	High	Low
0.12	national_international	High	Low	Low	Low
0.12	national_international	Low	Low	High	High
0.12	national_international	High	Low	Low	High
0.09	club_university_county	Low	Low	High	Low
0.09	club_university_county	High	Low	Low	Low
0.07	club_university_county	Low	Low	Low	High
0.06	national_international	Low	Low	Low	Low
0.05	national_international	Low	Low	Low	High
0.04	club_university_county	Low	Low	Low	Low

S7 Table. Probabilities of injury conditional on the variables in the Markov blanket for injured $\_2$ .

prob	FFFS_1	NLE_2	stiffness_2	HRV_2	balance_2
0.53	Low	Low	High	Low	High
0.46	Low	High	High	Low	High
0.41	Low	Low	High	High	High
0.39	Low	Low	High	Low	Low
0.35	Low	High	High	High	High
0.33	Low	High	High	Low	Low
0.32	Low	Low	Low	Low	High
0.28	Low	Low	High	High	Low
0.26	Low	High	Low	Low	High
0.25	High	Low	High	Low	High
0.23	Low	High	High	High	Low
0.23	Low	Low	Low	High	High
0.22	High	High	High	Low	High
0.21	Low	Low	Low	Low	Low
0.18	Low	High	Low	High	High
0.17	High	Low	High	High	High
0.17	Low	High	Low	Low	Low
0.16	High	Low	High	Low	Low
0.15	High	High	High	High	High
0.14	Low	Low	Low	High	Low
0.13	High	High	High	Low	Low
0.13	High	Low	Low	Low	High
0.11	Low	High	Low	High	Low
0.11	High	High	Low	Low	High
0.11	High	Low	High	High	Low
0.09	High	High	High	High	Low
0.08	High	Low	Low	High	High
0.08	High	Low	Low	Low	Low
0.07	High	High	Low	High	High
0.06	High	High	Low	Low	Low
0.05	High	Low	Low	High	Low
0.04	High	High	Low	High	Low

S8 Table. Highest and lowest probability of injury, conditional on the all variables in the Markov blanket for "injured".

Probability	hours	pi	nle	stiffness
0.77	High	injury	+1SD	+1SD
0.74	High	no injury	+1SD	+1SD
0.72	Low	injury	+1SD	+1SD
0.70	High	injury	+1SD	mean
0.69	High	injury	+1SD	-1SD
0.68	High	no injury	+1SD	mean
0.66	High	no injury	+1SD	-1SD
0.65	Low	injury	+1SD	mean
0.64	Low	injury	+1SD	-1SD
0.61	High	injury	mean	+1SD
0.58	High	no injury	mean	+1SD
0.54	Low	injury	mean	+1SD
0.54	High	injury	mean	mean
0.51	High	injury	-1SD	+1SD
0.51	High	injury	mean	-1SD
0.50	High	no injury	mean	mean
0.48	High	no injury	mean	-1SD
0.48	Low	injury	mean	mean
0.47	High	no injury	-1SD	+1SD
0.46	Low	injury	mean	-1SD
0.44	Low	injury	-1SD	+1SD
0.44	High	injury	-1SD	mean
0.42	High	injury	-1SD	-1SD
0.41	High	no injury	-1SD	mean
0.38	High	no injury	-1SD	-1SD
0.37	Low	no injury	+1SD	+1SD
0.37	Low	injury	-1SD	mean
0.35	Low	injury	-1SD	-1SD
0.32	Low	no injury	+1SD	mean
0.29	Low	no injury	+1SD	-1SD
0.20	Low	no injury	mean	+1SD
0.18	Low	no injury	mean	mean
0.16	Low	no injury	mean	-1SD
0.15	Low	no injury	-1SD	+1SD
0.13	Low	no injury	-1SD	mean
0.11	Low	no injury	-1SD	-1SD