

Supplementary Material

Appendix A: The Life History Calendar

The top lines of this calendar reveal the Nepal-specific nature of the visual cues used in this LHC. The first row is Nepalese calendar years, with each Nepali year heading a single column, beginning in Nepali year 2013 (Gregorian year 1957) and ending in Nepali year 2074 (Gregorian year 2018). Following best practices in LHC design, the second row specifies the timing of important national events that occurred at the same time for all of those in the study population (Axinn, Pearce, and Ghimire 1999). The third row of timing cues is a special feature of our Nepal study—independently assessed timing of highly memorable local neighborhood events that are pre-edited for each specific neighborhood before the calendar is administered (Axinn, Barber, and Ghimire 1997). The fourth row of timing cues presents the Tibetan calendar animal years because many Nepalese of Tibetan-origin ethnic groups use these animal year calendars in their daily lives and they provide an important timing anchor. Together these rows present each respondent with a standardized set of timing cues with which they begin the event recall process.

The calendar *format* also facilitates interviewers in collecting complex life history data (Caspi et al. 1996; Freedman et al. 1988). The same visual cues which are designed as an aid to respondent recall help to drive the interviewers' questions. This structure helps ensure that interviewers gather data with the required precision, in terms of both timing and sequencing. Visual aspects of the LHC method also help interviewers be sure they have collected complete data. Interviewers can easily detect gaps in the life history or unlikely sequences of events and probe to correct these problems. In fact, the benefits to interviewers are so important that LHC methods collect nearly as high quality data over the phone as they do in face-to-face interviews (Freedman et al. 1988).

The interviewer's work begins with the rows 5-8 describing the respondent's age and important personal experiences (Figure 1). This section of the calendar is administered to all respondents prior to the section of the diagnostic instrument that screens for key symptoms of mental disorders (the Composite International Diagnostic Interview: CIDI—described below). The interviewer begins at row 5 collecting a complete residential history, from the respondent's place of birth through the respondent's current residence at the time of interview. Next the interviewer gathers a complete marital and childbearing history for each respondent. Then the interviewer gathers a complete history of educational and job change events. Finally, the

interviewer asks each respondent a history of special events in their lives, including both good events and bad events. The techniques used to record events on LHCs have been described in detail elsewhere (Axinn, Pearce, and Ghimire 1999). Recording this information can take as long as 15 minutes of interview time, but this information becomes a crucial person-specific set of memory cues and the process of remembering and recording all of them creates cognitive engagement in the detailed recall of prior life experiences.

It is important to note that interviewers are explicitly trained on the fundamental differences of administering an LHC versus a standardized interview—within the LHC, interviewers have much more flexibility and freedom to move through the different domains of the calendar and use targeted probing to generate a complete history. The LHC is used as just a tool during the interview itself—the information does not become part of the survey dataset. However, the calendar of these experiences is gathered before respondents begin answering CIDI screening questions for mental health disorders that require the recall of timing and duration of spells of specific symptoms.

Appendix A, Figure 1. Summary of the Nepal-Specific Life History Calendar (LHC)

Life History Calendar

Interviewer's ID:

Respondent's ID:

Interview Date:

1	Nepali Year		13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	Nepali Year		1																																																																																							
2	National Events	First Election										New Education System										19 days Janaandolan										Blection II										National Events		2																																																																																
3	Neighborhood/Community Events																																																																																																																									Neighborhood/Community Events		3
4	Animal Year	Tg	Ct	Eg	Sa	Hs	Sp	Mk	Bd	Dg	Dr	Ri	Cw	Tg	Ct	Eg	Sa	Hs	Sp	Tg	Ct	Eg	Sa	Hs	Sp	Mk	Bd	Dg	Dr	Ri	Cw	Tg	Ct	Animal Year		4																																																																																								
5	Age																																																																																																																									Age		5
Important Personal Experiences																																	Important Personal Experiences																																																																																											
6	1st Experience																																																																																																																									1st Experience		6
7	2nd Experience																																																																																																																									2nd Experience		7
8	3rd Experience																																																																																																																									3rd Experience		8
Worst or Last Bad Episode: sad/or/discouraged/or/uninterested																																	Worst or Last Bad Episode: sad/or/discouraged/or/uninterested																																																																																											
9	D22a or D22c: Age at episode	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	D22a or D22c: Age at episode	Yes/No	9																																																																																							
1st Episode: sad/or/discouraged/or/uninterested																																	1st Episode: sad/or/discouraged/or/uninterested																																																																																											
10	D57b: Age at first episode	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	1st Episode: sad/or/discouraged/or/uninterested	Yes/No	10																																																																																							
D57b: Age at first episode																																	D57b: Age at first episode																																																																																											
Largest Number of Changes Episode or Most Recent Large Number of Changes Episode: excited and full of energy/irritable or grouchy																																	Largest Number of Changes Episode or Most Recent Large Number of Changes Episode: excited and full of energy/irritable or grouchy																																																																																											
11	M3a or M3c: Age at episode	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	Largest Number of Changes Episode or Most Recent Large Number of Changes Episode: excited and full of energy/irritable or grouchy	Yes/No	11																																																																																							
M3a or M3c: Age at episode																																	M3a or M3c: Age at episode																																																																																											
12	M6a or M6c: Age at episode																																																																																																																									M6a or M6c: Age at episode		12
M6a or M6c: Age at episode																																	M6a or M6c: Age at episode																																																																																											
13	1st Episode: excited and full of energy/irritable or grouchy	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	1st Episode: excited and full of energy/irritable or grouchy	Yes/No	13																																																																																							
1st Episode: excited and full of energy/irritable or grouchy																																	1st Episode: excited and full of energy/irritable or grouchy																																																																																											
14	M18b: Age at first episode																																																																																																																									M18b: Age at first episode		14
M18b: Age at first episode																																	M18b: Age at first episode																																																																																											
1st Episode: sudden attack																																	1st Episode: sudden attack																																																																																											
15	PD7b or PD9b: Age at first episode	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	1st Episode: sudden attack	Yes/No	15																																																																																							
PD7b or PD9b: Age at first episode																																	PD7b or PD9b: Age at first episode																																																																																											
1st Episode: worried or anxious/nervous or anxious/anxious or worried most days																																	1st Episode: worried or anxious/nervous or anxious/anxious or worried most days																																																																																											
16	G26b: Age at first episode	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	1st Episode: worried or anxious/nervous or anxious/anxious or worried most days	Yes/No	16																																																																																							
G26b: Age at first episode																																	G26b: Age at first episode																																																																																											
1st Episode: anger attack																																	1st Episode: anger attack																																																																																											
17	I18b: Age at first episode	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	1st Episode: anger attack	Yes/No	17																																																																																							
I18b: Age at first episode																																	I18b: Age at first episode																																																																																											
1st Episode: problems AU13-AU13d because of drinking																																	1st Episode: problems AU13-AU13d because of drinking																																																																																											
18	AU15b: Age at first problem	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	AU15b: Age at first problem	Yes/No	18																																																																																							
AU15b: Age at first problem																																	AU15b: Age at first problem																																																																																											
19	1st Episode: problems AU19-AU19j because of drinking	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	1st Episode: problems AU19-AU19j because of drinking	Yes/No	19																																																																																							
1st Episode: problems AU19-AU19j because of drinking																																	1st Episode: problems AU19-AU19j because of drinking																																																																																											
20	AU22b: Age at first problem																																																																																																																									AU22b: Age at first problem		20
AU22b: Age at first problem																																	AU22b: Age at first problem																																																																																											
20	AU24: Age first time three or more in 12-month period																																																																																																																									AU24: Age first time three or more in 12-month period		20
AU24: Age first time three or more in 12-month period																																	AU24: Age first time three or more in 12-month period																																																																																											
1st Occurrence: Worst very stressful event																																	1st Occurrence: Worst very stressful event																																																																																											
20	PT64a: Age at experience	Yes/No	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	61	62	63	64	65	66	67	68	69	70	71	72	73	74	1st Occurrence: Worst very stressful event	Yes/No	20																																																																																							
PT64a: Age at experience																																	PT64a: Age at experience																																																																																											

Appendix B: Additional Supporting Analyses

Appendix B, Table 1. Matching of sociodemographic characteristics, with and without use of Life History Calendar (LHC)

	Without LHC (n=1404), % (SE)	With LHC (n=1089), % (SE)	Chi-square Test
Age			
15-24	32.19 (1.25)	35.17 (1.45)	p=0.132
25-34	29.84 (1.22)	27.36 (1.35)	
35-44	21.65 (1.10)	19.38 (1.20)	
45-59	16.31 (0.99)	18.10 (1.17)	
Sex			
Female	53.28 (1.33)	55.46 (1.51)	p=0.277
Ethnicity			
Brahmin/Chhetri	38.75 (1.30)	45.55 (1.51)	p<0.000
Hill Janajati	14.67 (0.94)	7.44 (0.80)	
Dalit	12.68 (0.89)	20.75 (1.23)	
Newar	5.06 (0.58)	3.03 (0.52)	
Terai Janajati	26.85 (1.18)	23.05 (1.28)	
Others	1.99 (0.37)	0.18 (0.13)	
Educational Attainment			
SLC ¹ or more	31.84 (1.24)	37.83 (1.47)	p=0.002

¹ SLC= Schooling Leaving Certificate

Appendix B, Table 2. Percent meeting the criteria for mental disorder, with and without use of Life History Calendar (LHC), by education

	Without SLC ¹ (n=1634)		SLC ¹ or More (n=859)		Educational Attainment x LHC ²
	Without LHC (n=957) %	With LHC (n=677) %	Without LHC (n=447) %	With LHC (n=412) %	
Screening Positive					
Depression	21.42	35.16***	15.66	19.90	p=0.061
Generalized Anxiety Disorder	19.54	26.44***	11.86	12.14	p=0.130
Alcohol Use Disorder	31.03	32.20	26.40	22.82	p=0.198
Posttraumatic Stress Disorder ³	76.91	84.19***	80.98	83.25	p=0.154
DSM-IV Diagnoses (Life Time)					
Depression	1.57	20.38***	2.46	5.10*	p<0.001***
Generalized Anxiety Disorder	2.09	10.64***	1.12	1.94	p=0.066
Alcohol Use Disorder	5.22	6.50	4.70	4.13	p=0.353
Posttraumatic Stress Disorder ³	1.99	5.32***	1.12	0.97	p=0.113

* p < 0.05; ** p < 0.01; *** p < 0.001 (proportion tests for significant differences between the two subsamples)

¹ SLC=School Leaving Certificate

² Logistic results of the interaction between education and the use of LHC on meeting criteria for mental disorder

³ Respondents who experienced at least one trauma in their life time will be screened positive for Posttraumatic Stress Disorder

Appendix B, Table 3. Chi-square tests of sociodemographic correlates of lifetime prevalence of mental disorders, with and without use of Life History Calendar (LHC)

	MDD		GAD		AUD		PTSD	
	Without LHC, % (SE)	With LHC, % (SE)	Without LHC, % (SE)	With LHC, % (SE)	Without LHC, % (SE)	With LHC, % (SE)	Without LHC, % (SE)	With LHC, % (SE)
Age								
15-24	1.77 (0.62)	7.05 (1.31)	1.11 (0.49)	1.57 (0.64)	3.76 (0.90)	2.35 (0.78)	0.66 (0.38)	1.04 (0.52)
25-34	1.91 (0.67)	12.42 (1.91)	0.48 (0.34)	6.38 (1.42)	4.77 (1.04)	6.71 (1.45)	1.91 (0.67)	3.69 (1.09)
35-44	0.99 (0.57)	19.43 (2.73)	3.29 (1.02)	9.95 (2.07)	6.91 (1.46)	8.06 (1.88)	2.96 (0.97)	4.74 (1.47)
45-59	3.06 (1.14)	27.41 (3.19)	3.49 (1.22)	17.26 (2.70)	5.68 (1.53)	7.61 (1.89)	1.75 (0.87)	7.61 (1.89)
Chi-square(3) p	3.11 0.376	48.53 0.000	13.04 0.005	49.75 0.000	4.00 0.261	12.27 0.007	5.88 0.118	16.81 0.001
Sex								
Male	1.22 (0.43)	4.54 (0.95)	1.22 (0.43)	1.24 (0.50)	10.67 (1.21)	12.16 (1.49)	0.46 (0.26)	1.65 (0.58)
Female	2.41 (0.56)	22.68 (1.71)	2.27 (0.55)	12.25 (1.34)	0.13 (0.13)	0.33 (0.23)	2.81 (0.60)	5.30 (0.91)
Chi-square(1) p	2.71 0.100	71.04 0.000	2.22 0.137	47.95 0.000	80.82 0.000	71.24 0.000	11.49 0.001	10.12 0.001
Ethnicity								
Brahmin/Chhetri	1.84 (0.58)	14.31 (1.57)	1.84 (0.58)	7.46 (1.18)	4.78 (0.92)	5.04 (0.98)	2.02 (0.60)	2.82 (0.74)
Hill Janajati	1.94 (0.96)	23.46 (4.73)	2.43 (1.07)	11.11 (3.51)	6.80 (1.76)	2.47 (1.74)	1.94 (0.96)	4.94 (2.42)
Dalit	3.93 (1.46)	17.70 (2.54)	2.25 (1.11)	8.85 (1.89)	5.06 (1.65)	8.41 (1.85)	0.56 (0.56)	4.87 (1.43)
Newar	2.82 (1.98)	6.06 (4.22)	1.41 (1.41)	6.06 (4.22)	2.82 (1.98)	6.06 (4.22)	0 (0)	15.15 (6.34)
Terai Janajati	0.80 (0.46)	10.76 (1.96)	1.33 (0.59)	4.78 (1.35)	4.51 (1.07)	5.18 (1.40)	2.12 (0.74)	2.39 (0.97)
Others	0 (0)	0 (0)	0 (0)	0 (0)	10.71 (5.95)	0 (0)	0 (0)	0 (0)

Chi-square(5)	7.46	12.11	1.73	5.11	4.23	5.38	3.88	15.82
p	0.189	0.033	0.885	0.402	0.517	0.371	0.567	0.007
Educational Attainment								
No SLC ¹	1.57 (0.40)	20.38 (1.55)	2.09 (0.46)	10.64 (1.19)	5.22 (0.72)	6.50 (0.95)	1.99 (0.45)	5.32 (0.86)
SLC or more	2.46 (0.73)	5.10 (1.08)	1.12 (0.50)	1.94 (0.68)	4.70 (1.00)	4.13 (0.98)	1.12 (0.50)	0.97 (0.48)
Chi-square(1)	1.34	48.00	1.64	28.44	0.18	2.73	1.36	13.68
p	0.247	0.000	0.200	0.000	0.675	0.099	0.243	0.000
N	1404	1089	1404	1089	1404	1089	1404	1089

¹ SLC = Schooling Leaving Certificate

Appendix B, Table 4. Interaction effects of sex, age, and education with the use of Life History Calendar (LHC) on the lifetime prevalence of mental disorders

	MDD			GAD		
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
LHC						
NO	1.00	1.00	1.00	1.00	1.00	1.00
Yes	3.85 (1.61)***	4.21 (1.31)***	16.08 (4.46)***	1.01 (0.55)	3.76 (1.95)*	5.58 (1.44)***
Gender						
Male	1.00			1.00		
Female	2.00 (0.86)			1.88 (0.81)		
Age						
<30		1.00			1.00	
>=30		0.80 (0.32)			3.81 (1.92)**	
Education						
No SLC ¹			1.00			0.53 (0.27)
SLC or Above			1.58 (0.64)			
LHC x Gender						
Yes x Female	3.09 (1.52) *			5.92 (3.60)**		
LHC x Age						
Yes x 30+		3.81 (1.67)**			1.29 (0.75)	
LHC x Education						
Yes x SLC ¹ or Above			0.13 (0.06)***			0.31 (0.20)

Continued

	AUD			PTSD		
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
LHC						
No	1.00	1.00	1.00	1.00	1.00	1.00
Yes	1.16 (0.22)	0.70 (0.21)	1.26 (0.27)	3.65 (2.48)	1.95 (0.95)	2.77 (0.80)***
Sex						
Male	1.00			1.00		
Female	0.01 (0.01)***			6.29 (3.90)**		
Age		1.00			1.00	
<30		1.22 (0.30)			2.30 (1.04)	
>=30						
Education						
No SLC ¹			1.00			1.00
SLC or Above			0.89 (0.24)			0.56 (0.28)
LHC x Sex						
Yes x Female	2.14 (2.66)			0.53 (0.39)		
LHC x Age						
Yes x 30+		2.12 (0.80)*			1.22 (0.71)	
LHC x Education						
Yes x SLC ¹ or Above			0.69 (0.27)			0.31 (0.23)

¹ SLC= Schooling Leaving Certificate