Author/s:
O'Gorman, KM;Schmaal, L;Ratheesh, A;Habib, G;Tokatlidis, O;Jackson-Simpson, J;Cotton, SM;Rice, SM

Title:
Characteristics and clinical needs of young tertiary students attending a specialist mood disorders clinic

Date:
2023-06-01

Citation:
O'Gorman, K. M., Schmaal, L., Ratheesh, A., Habib, G., Tokatlidis, O., Jackson-Simpson, J., Cotton, S. M. & Rice, S. M. (2023). Characteristics and clinical needs of young tertiary students attending a specialist mood disorders clinic. Australasian Psychiatry, 31 (3), pp.277-281. https://doi.org/10.1177/10398562231162224.

Persistent Link:
https://hdl.handle.net/11343/333573

Characteristics and clinical needs of young tertiary students attending a specialist mood disorders clinic

Kieran M. O'Gorman,[1,2] Lianne Schmaal,[1,2] Aswin Ratheesh,[1,2] George Habib, [3] Orania Tokatlidis,[3,4] Jennifer Jackson-Simpson,[1,2] Sue M. Cotton,[1,2] Simon M. Rice,[1,2,*]

[1] Orygen, Parkville 3052, Victoria, Australia
[2] Centre for Youth Mental Health, The University of Melbourne, Parkville 3010, Victoria, Australia
[3] Student Success, Students and Scholarly Services, The University of Melbourne, Parkville 3010, Victoria, Australia
[4] Counselling and Psychological Services, The University of Melbourne, Parkville 3010, Victoria, Australia

Corresponding author: * Associate Professor Simon Rice, Orygen; Centre for Youth Mental Health, The University of Melbourne, Parkville, Australia, T: +03 0342 2800, E: simon.rice@orygen.org.au

Length: 1,886 words (excluding tables and reference list)

Tables: 3

Figures: 0

References: 17

Funding: This research was supported by a philanthropic donation. Simon Rice is supported by a Career Development Fellowship from the National Health and Medical Research Council of Australia (APP1158881), and the Dame Kate Campbell Fellowship from the Faculty of Medicine, Dentistry and Health Sciences at The University of Melbourne. Lianne Schmaal is supported by a National Health and Medical Research Council (NHMRC) Investigator Grant (ID 2017962). Sue Cotton is supported by an NHMRC Senior Research Fellowship (APP1136344).

Declaration of Conflicting Interests: The Authors declare that there is no conflict of interest.

Data availability: Data are unavailable for sharing as this was not included in the approved Human Research Ethics Committee application.

Ethical Approval: Ethical approval for this project was obtained through Melbourne Health (QA27102021).

Consent: Quality assurance approval was granted by the approving Human Research Ethics Committee as part of continuous service improvement. Under this approval individual patient consent was not required.

Abstract

Objective: To investigate the clinical characteristics of tertiary students and non-students attending a specialist clinic for severe mood disorders.

Method: Medical record audit of clients discharged from the Youth Mood Clinic. Data extracted included depressive symptomatology, suicidal ideation, self-harm, suicide attempt, tertiary education engagement, drop-out and deferral.

Results: Data from 131 clients (*M* age = 19.58 years, *SD*=2.66) were analysed, including 46 tertiary students. Relative to non-students, at intake, tertiary students reported more severe depressive symptomatology (*d*=0.43). They were more likely to experience suicidal ideation at intake (*V* = .23), and during treatment (*V* = .18). Tertiary students were also more likely to be living separately to their family of origin (*V*=.20) but were less likely to have experienced parental separation (*V*=.19). 21.73% of tertiary students dropped out or deferred study during care.

Conclusion: In this cohort, those engaged in tertiary education experience more severe depression and more commonly experienced suicidal ideation. These young people require targeted support for their mental health while they undertake tertiary education.

Keywords: depression; mood disorders; tertiary education; university; suicide.

Introduction

The mental health of tertiary education students is a growing public health concern.[1] The majority of tertiary education students in Australia are aged 17-24 years,[2] an age group which also exhibits the highest rate of mental disorders.[3] Research shows that mental disorders are more prevalent among tertiary education students than among members of the general population[4] and have a detrimental impact on young people's education.[5] Australian tertiary students aged 15-24 years are more likely to report severe or moderately severe depressive symptoms than non-students in the same age-group, such that approximately one-third of students enrolled at a large Australian university reported at least moderate depressive symptoms.[6]

There are several aspects of tertiary student life that could increase the risk of mental ill-health in young people, such as academic pressure and workload,[7] financial stress, work commitments, transitioning to student life and living away from family for the first time.[1] The available evidence suggests that the relationship between mental ill-health and study outcomes is bidirectional.[6] That is, the stressors of tertiary study likely increase the risk of poor mental health, while poor mental health makes it harder to effectively respond to these stressors. Students experiencing high academic pressure are more likely to report depression and/or anxiety symptoms, while students with poor mental health are more likely to fail subjects, receive lower grades, and discontinue their studies.[6] Respondents to the 2016 Australian National Tertiary Student Wellbeing Survey[8] reported that anxiety, low mood, and feelings of hopelessness impacted their studies to the extent that they were unable to function on some days.

While poor mental health is related to poor academic outcomes, engaging in treatment for depression predicts higher grades,[5] and effectively engaging in and completing tertiary education facilitates psychosocial recovery.[1] Higher education levels predict reduced anxiety

and depression in later life.[9] These findings suggest that depressed students can meet their education goals with the right supports in place, and that doing so has long-term psychological benefits.

While previous research has studied the mental health of the broader student population,[6, 8, 10] tertiary students engaging with the mental health system may have unique challenges and needs that are not captured by surveys, given the relatively unique profile of young people with severe mental health needs.[11] This study examines the characteristics and clinical needs of tertiary students attending a specialist youth mood disorder clinic: Youth Mood Clinic (YMC). YMC provides time-limited, evidence-based treatment to young people aged 15-25 years experiencing complex mood disorders[12] characterised by moderate-severe mood symptoms, comorbid disorders, and ongoing suicidal ideation or recent suicide attempt.[11] This study offers the first investigation of tertiary youth mental health clients in Australia who are engaged in tertiary education, aiming to investigate the characteristics and clinical needs of this cohort.

Methods

Design

A retrospective medical record audit was undertaken with consecutively discharged YMC clients. This study extends upon the sample from a previous file audit of 84 YMC clients consecutively discharged January-June 2018.[11]

Participants

Participants were young people accepted for outpatient treatment at YMC. Records were included in analyses if they were formally discharged during the 2018 calendar year and were aged 16 to 25 years at intake (as these young people could feasibly enrol in tertiary education during their episode of care). A client was considered a tertiary student if they were

enrolled in university or TAFE (Technical and Further Education) study at any point during their episode of care.

Procedure

A data extraction template (see supplementary materials) guided the data extraction process, which was conducted by the first author accessing the electronic medical records of YMC patients discharged in the study window. Cases from the previous file audit[11] were updated with additional variables regarding tertiary education. Data were then extracted from the case files of clients consecutively discharged from June 2019 onwards, with the aim of collecting as much data as possible in the time available to the researchers. Data extracted related to demographic factors, tertiary education, clinical characteristics, and client history. Ethical approval was provided by the [details omitted for double-anonymized peer review]. Under this approval individual patient consent was not required.

Measure

All incoming YMC clients complete the nine-item Patient Health Questionnaire (PHQ-9)[13] to measure their symptoms of depression. Clients are asked to rate how often over the previous two weeks they have felt symptoms (e.g., "Little interest or pleasure in doing things") on a scale from 0 ("Not at all") to 3 ("Nearly every day"). The total score (range=0-27) is then used as an indicator of depression severity.

Data analysis

Tertiary student clients were compared to clients not engaged in tertiary education. Chi-square tests were conducted for comparisons on dichotomous variables (e.g., suicidal ideation present or absent at intake), with Cramér's *V* reflecting effect size.[14] Independent samples t-tests were conducted for comparisons on continuous variables (e.g., PHQ-9 scores), with Cohen's *d* reflecting effect size.[15]

Results

One-hundred and fifty case files were examined for consecutive clients discharged between January and October 2018, inclusive. Nineteen case files were for clients aged <16 years at intake and were excluded from subsequent analyses, resulting in a sample of 131 YMC clients.

Descriptive statistics characterising the sample are presented in Table 1. Most (54.6%) young people attending the YMC lived at home with their family of origin, though many (42.3%) were experiencing current family conflict. Other psychosocial stressors, such as social isolation (47.3%) and disengagement from both education and employment (33.6%) were also common. No significant differences in these or any other characteristics were found between males and females.

Table 1 here

Suicidal ideation precipitated the referral of 61.1% clients to the YMC, and the mean PHQ-9 score was 19.51 (*SD*=6.09) indicating moderate-severe depression. The most common referral source to the clinic was from emergency departments (29.0%) followed by mental health practitioners (17.6%) and then headspace clinics (13%). Results for adverse events (separated by tertiary student status) are presented in Table 2.

Table 2 here

Forty-six (35.1%) YMC clients engaged in tertiary education at some point during their episode of care with the clinic, with university study being more common than TAFE study within this group (78.3% and 21.7%, respectively). The vast majority (93.5%) were studying full-time at intake, though 23.9% reduced their study-load during YMC care. Seven of these tertiary-student clients (15.2%) discontinued tertiary study during their episode of care with the YMC, while three (6.5%) deferred their studies.

Tertiary-student clients were compared to other clients aged ≥16 years at intake (Table 3). Tertiary students were significantly less likely to have experienced parental separation than their non-tertiary peers, χ^2 (1, n=130)=4.65, p=.031, with a small effect size (V=.19). Tertiary students were also less likely to be living with their family of origin, χ^2 (1, n=130)=5.09, p=.024, with a small effect size (V=.20). Tertiary students were not more likely to be experiencing financial stress, χ^2 (1, n=129)=0.34, p=.853. In terms of clinical characteristics, tertiary students scored significantly higher on the PHQ-9, t(113)=2.22, p=.028, indicating more severe depression with a small-to-medium effect size (d=0.43). Tertiary students were also more likely than non-tertiary students to report experiencing suicidal ideation, both at the beginning of care, χ^2(1, n=131)=6.726, p=.010, and during care χ^2(1, n=131)=4.376, p=.036, with small effect sizes in both cases (V=.23 and V=.18, respectively). There was no significant association between tertiary student status and suicide attempt or self-harm before or during YMC care.

Table 3 here

Discussion

This report highlights the psychosocial challenges experienced by young people with severe depression attending outpatient care, who are engaged in tertiary education. While all clients exhibited poor mental health, tertiary student clients experienced more severe depression at intake, and more commonly experienced ongoing suicidal ideation. These findings highlight the need for further research into supporting young people who are studying at a tertiary level while experiencing severe depression.

Our findings converge with those of Sanci et al.,[6] who found that the proportion of tertiary students reporting severe or moderately severe depression (as indicated by PHQ-9 cut-offs) was higher than among young people in the general population. There may be several reasons as to why tertiary students in this cohort experienced poorer mental health.

First, tertiary students may have better access to primary mental health care through university counselling services such that only those with a higher level of depression and concomitant suicidality are referred into tertiary services. While the non-tertiary sample may also have access to primary youth mental health care, the system is often under-resourced. The absence of a supportive primary and secondary mental health system for non-tertiary students could mean that those with less severe illness are accepted into tertiary care. Second, tertiary students were more likely to be living away from their family of origin and may consequently have had poorer access to familial support. Tertiary students with depression might therefore benefit from greater family involvement in care or a focus on increasing their social supports. While many students travel from regional, remote, and even international locations to study, recent advances in telemental health[16] could facilitate family involvement in their care.

In the present study, roughly one in five tertiary student clients dropped out or deferred their study during their episode of care. Our finding aligns with those of the 2016 National Tertiary Student Wellbeing Survey,[8] wherein help-seeking students reported that symptoms of depression (including suicidal ideation) interfered with their studies. Given the severe depressive symptoms of these clients, youth mental health services should explore opportunities to improve linkages with tertiary institutions. Youth mental health services can provide expert guidance on youth mental health (including referral pathways and resources) to tertiary institutions, while these institutions can provide up-to-date, detailed insight to clinicians on the supports available to tertiary students and on their educational needs.[17]

Limitations

While this report provided valuable insights into the needs of tertiary education students attending the YMC, several limitations must be considered when interpreting the results. Firstly, it is uncertain how generalisable these results are to the broader student

population. As a tertiary mental health service, the YMC caters to young people whose symptoms are too severe or complex for other health services such as headspace.[12] They are therefore clinically distinct not only from the general population, but from young people with mild-moderate mood disorders. Further research accounting for these potential confounds must be conducted before broader inferences can be made. Secondly, PHQ-9 scores were only available for clients at intake, so we could not investigate changes in depressive symptomatology during or after care. Thirdly, the researcher conducting data extraction was aware of the research aims, though a data extraction template was utilised in an effort to mitigate any influence on data extraction.

Conclusion and future directions

Tertiary students in our sample experienced more severe depressive symptoms and were more likely to report suicidal ideation compared to their non-tertiary engaged peers. These findings suggest that clinicians working with this population should incorporate their clients' tertiary education engagement into their treatment plans, including focused screening and ongoing monitoring of depressive symptoms (especially suicidal ideation). There is a need for further research into improving mental health outcomes for tertiary students experiencing depression. Collaborative partnerships between tertiary institutions and youth mental health services will facilitate such research and strengthen referral pathways. Future studies should longitudinally investigate the role of study-related stressors, familial support, and living arrangements in the mental health of tertiary students, as well as their implications for clinical treatment.

References

1. Orygen. *Under the radar: The mental health of Australian university students*. 2017. Melbourne.
2. Australian Bureau of Statistics. *Hitting the books: Characteristics of higher education students* Report no. 4102.0, 25 July 2013. Canberra.
3. Australian Bureau of Statistics. *National Survey of Mental Health and Wellbeing: Summary of Results, 2007*. Report no. 4326.0, 23 October 2007. Canberra.
4. Ibrahim AK, Kelly SJ, Adams CE, et al. A systematic review of studies of depression prevalence in university students. *J Psych Res* 2013; 47: 391-400. DOI: 10.1016/j.jpsychires.2012.11.015.
5. Hysenbegasi A, Hass SL and Rowland CR. The impact of depression on the academic productivity of university students. *J Ment Health Policy Econ* 2005; 8: 145-151. http://www.icmpe.org/test1/journal/issues/v8pdf/8-145_text.pdf.
6. Sanci L, Minas H, Russell M, et al. Towards a health promoting university: descriptive findings on health, wellbeing and academic performance amongst university students in Australia. The University of Melbourne, Melbourne, 2022. DOI: 10.21203/rs.3.rs-1826165/v1.
7. Deasy C, Coughlan B, Pironom J, et al. Psychological Distress and Coping amongst Higher Education Students: A Mixed Method Enquiry. *PLOS ONE* 2014; 9: e115193. DOI: 10.1371/journal.pone.0115193.
8. headspace & National Union of Students. *National tertiary student wellbeing survey 2016.* 2017.
9. Bjelland I, Krokstad S, Mykletun A, et al. Does a higher educational level protect against anxiety and depression? The HUNT study. *Soc Sci Med* 2008; 66: 1334-1345. DOI: 10.1016/j.socscimed.2007.12.019.
10. Cvetkovski S, Reavley NJ and Jorm AF. The prevalence and correlates of psychological distress in Australian tertiary students compared to their community peers. *Aust N Z J Psychiatry* 2012; 46: 457-467. DOI: 10.1177/0004867411435290.
11. Rice SM, Halperin S, Cahill S, et al. The Youth Mood Clinic: an innovative service for the treatment of severe and complex depression. *Australas Psych* 2017; 25: 112-116. DOI: 10.1177/1039856216689002.
12. Rice SM, McKechnie B, Cotton S, et al. Severe and complex youth depression: Clinical and historical features of young people attending a tertiary mood disorders clinic. *Early Interv Psych* 2022; 16: 316-322. DOI: 10.1111/eip.13183
13. Kroenke K, Spitzer RL and Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med* 2001; 16: 606-613. DOI: 10.1046/j.1525-1497.2001.016009606.x.
14. Cramér H. Mathematical methods of statistics. Princeton, New Jersey: Princeton University Press, 1946.
15. Cohen J. *Statistical power analysis for the behavioral sciences*. Routledge, 2013.
16. Snoswell CL, Arnautovska U, Haydon HM, et al. Increase in telemental health services on the Medicare Benefits Schedule after the start of the coronavirus pandemic: data from 2019 to 2021. *Aust Health Rev* 2022; 46: 544-549. 2022/06/23. DOI: 10.1071/ah22078.
17. Orygen. *Australian University Mental Health Framework full report*. 2020.

Tables

Table 1. Characteristics of YMC clients.

	Statistic	**Total (*n*=131)[1]**	**Female (*n*=68)**	**Male (*n*=62)**
Demographics				
Age	*M* (*SD*)	19.58 (2.66)	19.74 (2.78)	19.40 (2.53)
Accommodation with family of origin	% (*n*)	54.6 (71)	62.9 (39)	47.8 (32)
Current family conflict	% (*n*)	42.3 (55)	37.3 (25)	46.8 (29)
Marked social isolation	% (*n*)	47.3 (61)	44.8 (30)	50.8 (31)
Disengaged from education/vocation	% (*n*)	33.6 (44)	32.4 (22)	35.5 (22)
Born overseas	% (*n*)	23.7 (31)	27.4 (17)	20.6 (14)
Tertiary study during YMC care[2]	% (*n*)	35.1 (46)	39.7 (27)	30.6 (19)
Prior conviction	% (*n*)	6.1 (8)	8.8 (6)	3.2 (2)
Clinical factors				
Substance use disorder (at entry)	% (*n*)	13.7 (18)	13.2 (9)	14.5 (9)
Recent YMC care[3]	% (*n*)	22.9 (30)	25.0 (17)	21.0 (13)
Client re-referred post-discharge[4]	% (*n*)	15.1 (18)	12.9 (8)	17.9 (10)
Suicidal ideation at referral	% (*n*)	61.1 (80)	61.8 (42)	59.7 (37)

Note. YMC = Youth Mood Clinic. [1] One participant was excluded from gender comparisons due to ambiguous gender identity. [2] Combined University and TAFE. [3] Client previously discharged and subsequently re-referred to YMC. [4] Data from admissions outside the study period are not included in this study.

Table 2. Adverse events of tertiary students vs. non-tertiary clients.

Adverse event	**Statistic**	**Total (*n*=150)**	**Tertiary (*n*=46)[1]**	**Non-tertiary (*n*=85)**
Parental separation	%[#] (*n*)	50.8 (66)	**37.8 (17)**	**57.6 (49)[a]**
Bullying	% (*n*)	31.3 (40)	27.3 (12)	33.3 (28)
Loss of friend or family member	% (*n*)	29.5 (38)	22.7 (10)	32.9 (28)
Exposure to domestic violence	% (*n*)	23.2 (29)	20.9 (9)	24.4 (20)
Physical abuse (>2 years prior)	% (*n*)	19.5 (25)	15.9 (7)	21.4 (18)
Inconsistent home environment	% (*n*)	15.7 (20)	11.4 (5)	18.1 (15)
Sexual abuse (>2 years prior)	% (*n*)	18 (23)	22.7 (10)	15.5 (13)
Parental neglect	% (*n*)	9.4 (12)	9.1 (4)	9.6 (8)

Note. Bolded values denote significant difference. [1] refers to combined University and TAFE.
[a] $p = .031$.

Table 3. Clinical characteristics of tertiary student vs. non-tertiary engaged clients.

	Statistic	**Total (*n*=131)**	**Tertiary (*n*=46)[1]**	**Non-tertiary (*n*=85)**
Symptom severity				
PHQ-9[2]	*M (SD)*	19.51 (6.06)	**21.17 (5.84)**	**18.59 (6.01)[a]**
Self-harm				
History of self-harm	% (*n*)	57.3 (75)	56.5 (26)	57.6 (49)
Self-harm at entry	% (*n*)	28.2 (37)	37.0 (17)	23.8 (20)
Any self-harm during care	% (*n*)	28.2 (37)	34.8 (16)	25.9 (21)
Suicidality				
No. ED/IPU admissions for suicidal ideation	*M* (*SD*)	0.17 (0.70)	0.11 (0.32)	0.20 (0.83)
No. ED/IPU admission for suicide attempt	*M* (*SD*)	0.08 (0.39)	0.02 (0.15)	0.12 (0.47)
Suicidal ideation precipitating referral	% (*n*)	61.1 (80)	**76.1 (35)**	**52.9 (45)[b]**
Suicidal ideation during YMC care	% (*n*)	67.9 (89)	**80.4 (37)**	**62.7 (52)[c]**
Suicide attempt precipitating referral	% (*n*)	35.9 (47)	30.4 (14)	38.8 (33)
Suicide attempt during YMC care	% (*n*)	15.3 (20)	10.9 (5)	17.6 (15)

Note. YMC = Youth Mood Clinic. ED/IPU = Emergency department/inpatient unit. Bolded values denote significant difference. [1] refers to combined University and TAFE. [2] Patient Health Questionnaire, nine-item version. [a] $p = .028$. [b] $p = .010$. [c] $p = .036$.

Supplementary Material
Data extraction template

Study ID	
Study ID	
Demographics (at entry to service)	
Age at YMC registration	
Was this a 'failed previous discharge' and a new episode?	No ☐ / Yes ☐ (previous registration & discharge dates, list clinic)
Client subsequently referred to YMC?	No ☐ / Yes ☐
Accommodation	House/flat with family of origin ☐
	Rental accommodation outside family ☐
	Temporary accommodation ☐
	Homeless, couch surfing ☐
DSM diagnosis at entry	List diagnoses Panic Disorder ☐ GAD ☐ SAD ☐ PTSD ☐ OCD ☐ Other Anxiety disorder ☐ Any Anxiety disorder ☐ Body Dysmorphic Disorder ☐ Anorexia Nervosa ☐ Bulimia Nervosa ☐ Any Eating Disorder ☐ Bipolar Disorder ☐ Borderline Personality Disorder ☐ Major Depressive Episode ☐ Dysthymia ☐ Major Depressive Disorder ☐ Any Depressive Disorder ☐ ADHD ☐ ASD ☐ Any NDD ☐ Conduct Disorder ☐ ODD ☐ Any behavior disorder ☐ Cannabis Use Disorder ☐ Heroin Use Disorder ☐ Benzodiazepine dependence ☐ Alcohol Use Disorder ☐ Methamphetamine Use Disorder ☐ Any Substance Use Disorder ☐

	Other ☐ (list)
Educational status	
Highest education	Primary ☐ Secondary ☐ Year 11 or 12 ☐ TAFE commenced ☐ TAFE complete ☐ University Commenced ☐ University Complete ☐
Tertiary student status **prior to** YMC care (select one)	Not studying with a tertiary institution ☐
	Studying with a tertiary institution ☐
	Deferred course ☐
	Discontinued (dropped out prior to YMC care) ☐
	Completed course ☐
Tertiary student status **during** YMC care (select one)	Not studying with a tertiary institution ☐
	Currently enrolled in a course ☐
	Deferred course ☐
	Discontinued (dropped out during YMC care) ☐
Previous treatment / background factors	
Current deliberate self-harm (at entry to service)	No ☐ / Yes ☐
Exposure of adverse events	No ☐ / Yes – Inconsistent home environment ☐
	No / Yes – Separation of parent(s) ☐
	No ☐ / Yes – Childhood sexual abuse ☐
	No ☐ / Yes – Loss/death of close relatives/friends ☐
	No ☐ / Yes – Parental neglect ☐
	No ☐ / Yes – Childhood physical abuse ☐
	No ☐ / Yes – Exposure to domestic violence ☐
	No ☐ / Yes – Bullying ☐
	Other ☐
Self-harm, suicide risk & inpatient care	
History of self-harm	No ☐ / Yes ☐
Self-harm during episode of care	No ☐ / Yes ☐
Suicide attempt prior to YMC care	No ☐ / Yes ☐ # Method
Suicide ideation precipitating this referral	No ☐ / Yes ☐
Suicide attempt precipitating this referral	No ☐ / Yes ☐
Suicide ideation during episode of care	No ☐ / Yes ☐

Suicide attempt during episode of care	No ☐ / Yes ☐ If yes, state number of attempts If yes, resulted in death: No ☐ / Yes ☐ Method: State relational trigger: ☐ No relational trigger ☐ First degree family ☐ Partner ☐ Non-Family State prescribed medication
IPU admission due to suicide ideation	No ☐ / Yes ☐ Episodes: Days:
IPU admission due to suicide attempt	No ☐ / Yes ☐ Episodes: Days:
IPU admission due to another reason	No ☐ / Yes ☐ Episodes: Days:
YMC Screens – Item-level responses (at entry to service)	
PHQ-9 total score	
PHQ – 1 Anhedonia	
PHQ – 2 Depressed Mood	
PHQ – 3 Sleep	
PHQ – 4 Fatigue	
PHQ – 5 Appetite	
PHQ – 6 Worthlessness	
PHQ – 7 Concentration	
PHQ – 8 Psychomotor	
PHQ – 9 Suicide / self-harm	