# PEER REVIEW HISTORY

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# **ARTICLE DETAILS**

TITLE (PROVISIONAL)	A cross-sectional exploration of the clinical characteristics of
	disengaged (NEET) young people in primary mental health care
AUTHORS	O'Dea, Bridianne; Glozier, Nick; Purcell, Rosemary; McGorry, Patrick; Scott, Jan; Feilds, Kristy-Lee; Hermens, Daniel; Buchanan, John; Scott, Elizabeth; Yung, Alison; Killacky, Eoin; Guastella,
	Adam; Hickie, Ian

## **VERSION 1 - REVIEW**

REVIEWER	Corina Benjet
	National Institute of Psychiatry Ramon de la Fuente
	Mexico
REVIEW RETURNED	15-Sep-2014

GENERAL COMMENTS	In general the statistics are appropriate, but the final two models
	should control for economic hardship.
	This is a well written manuscript describing disengaged young
	people (NEET) in primary mental health care. The background
	section adequately covers the literature on NEET youth in developed
	countries and provides justification for the social relevance of the
	study. The only detail that requires attending to in the background
	section is that two references (Merikangas et al., 2009 and Hickie et
	al, 2001) are not found in the reference list. The methods are
	adequately described, though the authors should state whether
	parental consent was obtained for those who were minors. With
	regards to the data analytic approach, because economic hardship
	is likely to be a confounding factor for the association of NEET
	status with criminal behavior, cannabis use risk and
	symptomatology, this should be controlled for in the second and
	third models. Otherwise, these associations may simply be due to
	economic disadvantage rather the unique experience of being disengaged from major social institutions. The discussion is
	thoughtful, acknowledges the limitations of the study (the most
	important being the cross-sectional natural which precludes
	inferences regarding whether NEET status is a consequence and/or
	cause of cannabis risk, depressive symptoms, and criminal
	charges). The findings of NEET status being associated with
	depressive symptomatology and cannabis risk, but not anxiety
	symptoms, is consistent with findings for youth in a very different
	context, namely adolescents in a developing country (Benjet et al.,
	2012). The authors' recommendations for multidisciplinary
	approaches to offending behavior and substance use and for
	addressing role functioning, not just symptoms, in mental health care
	settings is particularly relevant.

REVIEWER	Gunnar Morken
	Department of Neuroscience, Norwegian University of Science and
	Technology, Trondheim, Norway
REVIEW RETURNED	16-Nov-2014

GENERAL COMMENTS	An interesting paper focusing on characteristics of young people
	with mental health problems combined with NEET

### **VERSION 1 – AUTHOR RESPONSE**

### Reviewer 1:

R1.1. The only detail that requires attending to in the background section is that two references (Merikangas et al., 2009 and Hickie et al, 2001) are not found in the reference list. The references 'Merikangas et al., 2009' and 'Hickie et al, 2001' have been added to the reference list. These can be found in the list at numbers 18 and 19 (pg. 19)

R1.2. Because economic hardship is likely to be a confounding factor for the association of NEET status with criminal behavior, cannabis use risk and symptomatology, this should be controlled for in the second and third models.

The analyses were modified to include economic hardship as a confounder in the regression analysis. The analysis section (pg.9) now reads:

"All variables achieving significance at p < .003 in the univariate analysis were included in the first step of multivariate analysis except for self-reported disability and social and occupational functioning due to the circularity with NEET status. To control for the relationship between criminal charges and income, economic hardship was entered as a confounder."

The results section (p. 10) now reads:

"NEETs reported higher levels of disability, lower levels of social and occupational functioning and higher rates of economic hardship (Table 1). NEETs were also more likely to have a history of criminal charges and risky cannabis use (but not alcohol or tobacco) than non-NEETs. Notably, NEET status was not associated with state location of centre, immigrant background, post-secondary education or indigenous background. In Model 1 of the multivariate analysis (Table 2), older age (20 – 25 years), gender (male), a history of criminal charges, cannabis risk and depressive symptoms were independently associated with NEET status. This model accounted for 10% of the variance in NEET status. Whilst Model 2 was significant overall, the addition of the gender interaction terms did not significantly improve the model fit. In particular, the association between depressive symptoms and NEET status was not moderated by gender. All of the associations found in Model 1 remained significant, confirming that NEET status was most strongly associated with older age, being male, criminal charges and depression."

Changes to Table 2 have also been made and these are highlighted on page 16.

As a result of the revised analysis, the discussion now reads (pg. 12):

"Of the symptom factors, depression was significantly associated with NEET status. The main association is not surprising as depressed individuals report greater restlessness, trouble concentrating and a failure to consider or plan for the future [35]. Those with depression often withdraw from social activities and relationships, decreasing the size of their social networks and severing relationships which may offer support and enhance occupational functioning. Conversely, disengagement is also likely to lead to worse mood: being NEET may exacerbate depressive

symptoms, leading to greater social isolation and diminished role functioning. Although not significant, a greater proportion of those who were NEET also reported higher rates of perceived discrimination. Understanding the links between mental illness, in particular depression, stigma and role functioning is important for the development of both clinical treatments and social programs attempting to improve role functioning. However, the current findings may reflect a sample bias: mental health services such as headspace may be capturing those NEETs who are experiencing depressive symptoms rather than those NEET who are not."

In the limitations section, a minor edit to the numeric value was made (pg.13):

"As the final regression model only accounted for 11% of the variance in NEET status, a range of other factors need to be considered including the family unit, cognitive impairment [41] and occupational aspirations [42]"

The results section of the Abstract was also amended (pg. 2) to reflect the revised analyses:

"Results: A total of 19% (130/696) were NEET. NEETs were more likely to be male, older, have a history of criminal charges, risky cannabis use, higher level of depression, poorer social functioning, greater disability and economic hardship, and a more advanced stage of mental illness than those engaged in education, training or work. Demographics such as post-secondary education, immigrant background and indigenous background, were not significantly associated with NEET status in this sample."

The Article Summary was also modified to reflect the changes of the revised analyses:

"Point 4 - This study was only able to identify 11% of the variance in NEET status. This strongly suggests that there are a range of other important factors that need to be investigated before NEET status is fully understood in this vulnerable group."

All changes are highlighted in the attached manuscript. We hope that these modifications are in accordance with the reviewers' suggestions, and we look forward to further correspondence with you.

#### **VERSION 2 - REVIEW**

REVIEWER	Corina Benjet National Institute of Psychiatry Ramon de la Fuente
REVIEW RETURNED	28-Nov-2014
GENERAL COMMENTS	The authors have submitted a stronger manuscript and have
GENERAL GOMMENTO	satisfied my previous concerns.
REVIEWER	Gunnar Morken

	Department of Neuroscience, Faculty of Medicine, Norwegian University of Science and technology, Trondheim, Norway
REVIEW RETURNED	25-Nov-2014

GENERAL COMMENTS	A nice paper, I support accepting it.