

Full Length Research Paper

Who are 'non-traditional students'? A systematic review of published definitions in research on mental health of tertiary students

Ethel Chung*, Deborah Turnbull and Anna Chur-Hansen

School of Psychology, The University of Adelaide, South Australia.

Received 26 September, 2014; Accepted 17 November, 2014

The term 'non-traditional students' is commonly used in higher education research and yet its definition has been unclear. This study systematically reviewed 45 definitions of 'non-traditional student' in mental health research conducted within the higher education context using a standardised data extraction and appraisal tool. Findings suggested a wide range of variations on how this term was defined. Thirteen different categories of meaning have been used, including age, multiple roles, mode of study, gap in studies, commuter status, being demographically 'different' from the norm, sex, admission pathway, enrolment in 'non-traditional' programs, being 'disadvantaged', disability and trauma, ethnicity, and having a previous degree. Different combinations of categories were mentioned in the reviewed definitions and wide variations existed within each category of meaning. The term 'non-traditional student' does not currently represent a functional category in communicating a distinct concept. Future research should improve the clarity and consistency in which it is defined.

Key words: Definition; non-traditional student; systematic review; tertiary education

INTRODUCTION

For many years students have typically entered university directly from secondary school, studying on campus, full-time, and from high socioeconomic backgrounds (Bradley et al., 2008; Choy, 2002). However, in the past two decades, the higher education sector in many industrialised countries has gone through significant transformation from elite to mass access, characterised by a marked increase in student numbers and diversity (Devlin, 2010). Students who do not conform to the traditional privileged image of university students are increasingly the norm (Bradley et al., 2008; Altbach et al., 2009; Higher Education Funding Council for England,

2013). In Australia, about 17% of domestic university students commencing in 2012 were from a low socio-economic background, representing a 9.1% increase from 2011 (Department of Industry, 2012).

The term 'non-traditional students' is commonly used in education research and policy-making to refer to those with socio-demographic characteristics that differ from traditional participants in higher education. In an era of increasing student diversity, such terminology may promote an awareness for researchers to explore issues particularly relevant to the growing number of students who arrive on campus via widening participation

*Corresponding author. E-mail: ethel.chung@adelaide.edu.au.

initiatives, leading to evidence-based policies and practices which support their well being and achievement (Kim et al., 2010). Research proposes that 'non-traditional students' are likely to face unique concerns which impact on their educational and mental health needs (Adebayo, 2006). For instance, students who have family or work responsibilities may face a higher load of external demands in comparison to 'traditional students' (Gilardi and Guglielmetti, 2011). Strategies to reduce conflict between work and study are therefore paramount for their success (Adebayo, 2006; Adebayo et al., 2008). Nevertheless, many have questioned the usefulness of the term 'non-traditional students' in research examining the experience of students from diverse backgrounds (Kim et al., 2010; Greenland, 1993; Smit, 2012). In particular, inconsistent definitions used in research have led to little agreement regarding who 'non-traditional students' are (Hughes, 1983; Kim et al., 2010; Johnson and Nussbaum, 2012). This may also risk generalising characteristics of some groups of students to others, due to the use of a single "umbrella term" to refer to diverse groups which may potentially have very different needs (Smit, 2012).

Reviewing the range of definitions used in research could lead to a clearer understanding of the term and the way in which it is applied. A previous article reviewed the definition of 'non-traditional students' in the education literature (Kim, 2002). However, this study was conducted more than a decade ago and focused on community colleges in the United States. Kim (2002) also did not mention methods used to select studies included in the review and how definitions were extracted and analysed.

The aim of the present study is to systematically review how the term 'non-traditional students' has been defined in mental health research conducted with higher education students. This area of interest was chosen because the mental health of university students has become a growing source of concern in recent years (Storrie et al., 2010; Dyrbye et al., 2010). Studies have shown that university students are more at-risk of mental distress compared to the age-matched general population (Leahy et al., 2010; Stallman, 2010), with the prevalence of severe mental distress within this population also on the rise (Gallagher, 2011; Benton et al., 2003; Collins and Mowbray, 2005). As the diversification of students' backgrounds increases, the mental health needs of university students are expected to evolve (Byrd and McKinney, 2012). Mental health research which considers student diversity issues is critical in guiding the development of initiatives which promote well-being among all students.

A clearer understanding of the meaning of 'non-traditional students' within the mental health literature would therefore assist the translation of research into practice.

In addition, the systematic review methodology was adopted because it is an increasingly recognised

approach in clarifying concepts or definitions (Oh et al., 2005; Frank et al., 2010; Wlodzimirow et al., 2012). The use of an explicit and auditable method to locate, assemble and evaluate the body of literature serves to reduce bias in the review process, leading to more reliable findings compared to traditional reviews (Hemingway and Brereton, 2009).

METHOD

Inclusion criteria

Type of studies

We included empirical quantitative and qualitative studies with primary data collection. Only peer-reviewed articles written in English were selected. Studies which were published from 1980 onwards were included to coincide with the emergence of influential research on 'non-traditional students' [Bean and Metzner 1985; Metzner and Bean, 1987].

Type of participants

The review included studies that dealt with students who were enrolled in any programs in any tertiary institutions (e.g. vocational institutions, universities and colleges). In addition, only studies in which participants were labelled as being 'non-traditional' were included.

Type of outcome measures

The review included studies which consisted of any quantitative or qualitative outcome measures broadly related to the topic of pedagogy and mental health/ distress.

Search strategy

An initial scoping exercise was conducted to develop a list of keywords appropriate for database searches. In collaboration with an experienced university librarian, the following keywords were developed: "*Non-traditional student*/ learner*/ undergraduate**", "*Non traditional student*/ learner*/ undergraduate**" and "*Nontraditional student*/ learner*/ undergraduate**".

Six electronic databases (Scopus, PsycInfo, ERIC, Education Research Complete, AEI, and Sociological Abstracts) were searched using the identified keywords. From the scoping search, it was clear that there existed numerous variations of the term 'non-traditional students' in the literature; e.g. 'non traditional male students' (Smith, 2006); 'non-traditional community college students' (Miller et al., 2005). To ensure that these variations were sufficiently captured, we utilised the proximity search feature of each database. Using this function enabled the detection of word strings that contained up to three words between the term 'non-traditional/ non traditional/ non traditional' and 'student*/ learner*/ undergraduate*'.

The primary reviewer (E.C.) screened the title and abstract of the search results. Duplicated citations were removed and citations were then selected based on relevance to the inclusion criteria. Full manuscripts of all selected citations were then retrieved. Articles which did not fulfil the inclusion criteria, based on information provided in the full manuscript, were then removed. The reference lists of all resulting articles were hand-searched to identify relevant articles which were not listed electronically.

In order to ensure reliability of the article selection process, the primary reviewer randomly selected 10% of all potentially eligible articles, and two reviewers (D.T. and A.C.H.) independently screened the title and abstract to assess their relevance to the inclusion criteria. Discrepancies of findings between the primary reviewer and the independent reviewers were discussed in a face-to-face meeting and resolved by consensus.

Review methods

The primary reviewer used a standardised data extraction and critical appraisal tool (referred to as 'the tool' hereafter) to extract information, and to evaluate definitions within all included studies. The tool was developed by adapting the Qualitative Assessment and Review Instrument (QARI) data extraction tool, and Narrative, Opinion and Text Assessment and Review Instrument (NOTARI) critical appraisal tool from the Joanna Briggs Institute (2011), as well as findings from a background literature search.

To ensure the reliability of the tool, the same two independent reviewers applied the tool to a selection of 10 articles (different from the articles used for checking reliability of articles selection), which were randomly selected by the primary reviewer. Discrepancies in findings were discussed in a face-to-face meeting and modifications were proposed. The primary reviewer then made changes based on recommendations. The revised tool was applied to a new selection of 10 articles by the same two independent reviewers. Discrepancies in findings were resolved by consensus among the two reviewers, and further changes to the tool were proposed. These changes were made by the primary reviewer, and the final version of the tool was developed (see Appendix 1).

This final tool was divided into two parts. The purpose of the first part was to extract background information about the studies (e.g. study method, country in which the study was conducted), as well as definitions of 'non-traditional students'. The present review differentiated two types of definitions used in the literature, namely, general definitions and working definitions. General definitions referred to broad defining statements in relation to previous research. Working definitions, which were the focus of the present review, were defined as statements made in the background or methods sections for the explicit purpose of the study. To facilitate the identification of categories involved in each working definition (e.g. age, sex, mode of study), a checklist containing common defining criteria of 'non-traditional students' identified in the scoping literature review was also included.

The second part of the tool assessed how well the term 'non-traditional students' was defined in each article based on three criteria as follows: whether a working definition of 'non-traditional students' in reference to the study sample could be clearly identified; whether the working definition identified was sufficiently clear and unambiguous, to a standard which would enable study replication; and whether the definition was referenced from the extant literature and any incongruence with it logically explained.

RESULTS

We identified 2155 unique records for initial relevancy screening by title and abstract. In total, 49 sources satisfied all inclusion criteria and form the basis of the systematic review (Figure 1). Of these records, all were published in journal article format except one being a book chapter. Most of the articles ($N=28$, 57.1%) were published from 2000 onwards; of these, 10 were published in the past 5 years. The majority of the 49 relevant records originated from the United States ($N=37$,

75.5%) while the others were from the United Kingdom ($N=7$, 14.3%), Canada ($N=2$, 4.1%), Nigeria ($N=2$, 4.1%) and Taiwan ($N=1$, 2%). The majority ($N=45$, 92%) of the studies were conducted in universities and colleges, among the remaining articles, two were conducted in community colleges, and two did not specify the type of institution. The studies were conducted among undergraduates ($N=34$, 69.4%), postgraduates ($N=4$, 8.2%), students undertaking a university introductory module ($N=1$, 2%), and the remainder did not specify the year level of participants ($N=11$, 22%). While most of the articles did not target students from a specific discipline ($N=27$, 55.1%), others were conducted within a particular disciplinary context. These disciplines included: Business, Computer technology, Education, Law, Mathematics, Nursing, Occupational therapy, Psychology, and Social work.

Four out of the 49 relevant records did not contain a working definition for 'non-traditional students'. Of the remaining 45 records, working definitions were as short as four words and as long as 258 words. Twenty out of 45 definitions were explicitly referenced from other authors' work, whilst 22 definitions did not include a reference, and three definitions were only partly referenced (Table 1).

Categories included in working definitions

Thirteen categories of meaning were identified in the extracted definitions (Table 2). The majority of these included only one category (19 out of 45), two categories were included in 14 out of 45 articles, and the remainder contained three or more categories. The following sections provide further details into how 'non-traditional students' were defined by these categories.

Age

Most definitions (35 out of 45) included the category of age. 'Non-traditional students' were commonly referred to as being older than a specific age; however, one article defined this student group in terms of being younger (Christie, 2009). The cut-off point most frequently adopted was that of 25 years (Bell, 2003; Carney-Crompton and Tan, 2002; Hemby, 1997; Mello, 2004; San et al., 2004; Elliott, 1990; Myers and Mobley, 2004; Norris, 2011; Sweet and Moen, 2007; Villella and Hu, 1991; Backels and Meashey, 1997; Hudson et al., 2008; Bennett et al., 2007; Quimby and O'Brien, 2006; Yarbrough and Schaffer, 1990; Waltman, 1997; Hemby, 1998; Christie, 2009; Keith, 2007). However, 9 other cut-off points were also used, including 20 (Kohler Giancola et al., 2009), 21 (Bitner, 1994), 22 (Morris et al., 2003), 23 (Arbuckle and Gale, 1996; Home, 1997; Query et al., 1992), 24 (Macari et al., 2006; Dill and Henley, 1998; Chartrand, 1992; Pierceall and Keim, 2007; Adebayo,

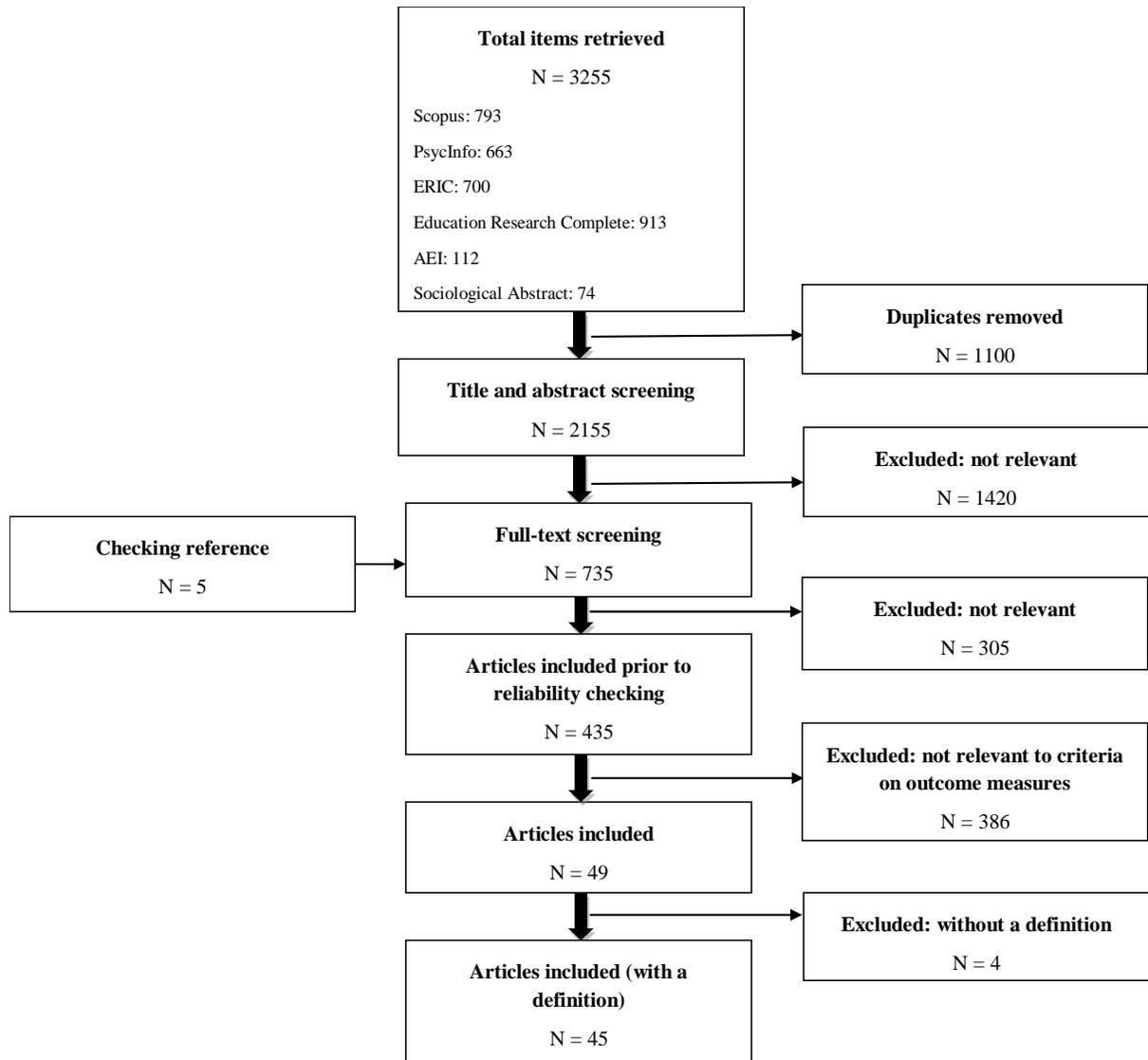


Figure 1. Flow chart of selection of articles.

2006), 28 (Bye et al., 2007), 30 (DeGregoria, 1987), 40 (Hollis-Sawyer, 2011), and 50 years (Hooper and Traupmann, 1983).

Multiple roles

In 18 definitions, 'non-traditional students' were referred to as individuals holding life roles in addition to that of student. Three sub-categories of role were commonly found, including spouse/ partner, employee/ worker, and parent/ carer of a dependent. Eight out of 18 of definitions mentioned all three sub-categories, while five mentioned a single sub-category, and the remainder included two sub-categories. Only one definition specified the duration in which these roles were held (i.e. at least one year) (Dill and Henley, 1998).

Fifteen definitions referred to 'non-traditional students' as 'employees' or 'workers' (Chartrand, 1990; Home, 1997; Hudson et al., 2008; Query et al., 1992; Dill and Henley, 1998; Adebayo, 2006; Fortune, 1987; Morris et al., 2003; Macari et al., 2006; Mello, 2004; Kirby et al., 2004), and/ or being 'financially independent' (Hemby, 1997, 1998; Macari et al., 2006; Waltman, 1997). Only a small proportion of these studies provided details regarding the nature of work, for instance, 'non-traditional students' were defined as those who worked full-time (Macari et al., 2006), or either part-time or full-time (Adebayo, 2006; Home, 1997; Mello, 2004). Furthermore, the definition of part-time or full-time work was only provided in two articles. One definition specified that full-time work constituted 35 or more hours per week (Macari et al., 2006), whereas another suggested that part-time work meant at least nine hours of work a week (Home,

Table 1. Verbatim definitions extracted from selected articles.

	Author	Year	Working definition	Referenced
1	Adebayo	2006	"Nontraditional students, as used in this context, refer to part-time/full-time student-workers ages 24 and older and working on a part-time or full-time basis" (p.126)	Yes
2	Arbuckle	1996	"[T]he cutoff between the traditional age and the nontraditional age student is 23" (p.23)	No
3	Backels	2008	"25 years of age or older" (p.46)	Yes
4	Bell	2003	"[T]wenty-five and older" (p.158)	No
5	Bennett	2007	"Nontraditional students were 25 year-old or older who did not immediately pursue college following high school graduation" (p.155)	No
6	Bitner	1994	"Subjects were defined as traditional students if they were under 21 years of age and single without children. All other subjects were considered nontraditional" (p.36)	No
7	Bye	2007	"[N]ontraditional students are defined as those aged 28 and older, for whom the undergraduate experience is not necessarily age normative" (p.141)	No
8	Carney-Crompton	2002	"25 years of age or older" (p.140)	Yes
9	Chang	2007	"[A]ttended the evening programmes and had at least one year between high school and college" (p.350)	No
10	Chartrand	1990	"Nontraditional undergraduate student was defined as someone who held two or more major life roles (i.e., employee, partner, or parent) in addition to the student role at the beginning of the quarter" (p.68)	Yes
11	Chartrand	1992	"Nontraditional undergraduate students were defined, consistent with extant research, as being at least 24 years of age, living off-campus, and enrolled either on a part-time or a full-time basis" (p.195)	Yes
12	Christie	2008	"[S]tudents from non-traditional pathways" (p.569) "[N]on-traditional students who entered an 'elite' Scottish university directly from further education colleges" (p.567)	No
13	Christie	2009	"[A]ged 25 years or younger at the time of entering university" (p.125) "[Y]oung people from disadvantaged backgrounds, and from a relatively under-researched location, who had actively chosen to study at elite universities" (p.126)	Partial
14	DeGregoria	1987	"The term refers to students who have entered or returned to college after a hiatus in their formal education. It usually describes that student who enters or returns to college after age 22; however, some surveys, including this one, utilize age 30+ in defining the nontraditional student" (p.38)	No
15	Dill	1998	"24 years old or older and had spent at least 1 year in a nonacademic role, such as housewife or employee, between high school or their last college experience and their present enrollment in college" (p.27)	Partial
16	Elliot	1990	"over 25 years of age" (p.161)	No
17	Everly	1994	"[H]aving previously completed a baccalaureate degree" (p.1023)	No
18	Fortune	1987	"[S]pouses, parents, and workers" (p.81)	No
19	Hansen	1999	"[B]eyond traditional school age (i.e., beyond the mid-20s), ethnic minorities, women with dependent children, underprepared students and other special groups who have historically been underrepresented in post secondary education" (p.192) "[S]tudents who are physically or learning challenged and those with psychiatric histories. Another neglected group included those who postpone college because of substance abuse problems, or other issues such as childhood sexual or physical abuse which may have affected their development and overall readiness for college" (p.192)	Yes
20	Hemby	1997	"[S]tudents who are 25 years old or older or who have assumed at least one of the social roles characteristic of adult status, including (a) being primarily financially self-supporting; (b) acting as a primary caregiver for a relative(s); or (c) being married and living with spouse, or being divorced or widowed and not living with parents or receiving primary financial support from others." (p.29)	Yes

Table 1. Cont'd.

21	Hemby	1998	"[S]tudents who were 25 years old or older or who had assumed at least one of the social roles characteristic of adult status, including (a) being primarily financially self-supporting; (b) acting as a primary caregiver for a relative(s); or (c) being married and living with spouse, or being divorced or widowed and not living with parents or receiving primary financial support from others" (p.305)	Yes
22	Hollis-Sawyer	2011	"The designation of "age 40 and older" reflects the operational definition of a relatively older nontraditional learner on a typical college campus" (p.294)	No
23	Home	1997	"[A]t least 23 years old, enrolled as part- or full-time students, employed at least nine hours a week, and carrying parental or caregiving responsibilities. Caregivers were defined as women providing informal care to a relative (child or adult) with physical, intellectual, emotional, or learning disabilities" (p.337)	No
24	Hooper	1983	"Returning women students over 50" (p.233)	No
25	Hudson	2008	"[S]tudent 25 years old and older adults who return to school full- or part-time while maintaining responsibilities such as employment, family, and other responsibilities of adult life" (p.106)	Yes
26	Johnson	2012	"84 subjects with the average age of 27.3 years (SD = 7.8), 80% having taken time off from school, approximately 60% having been married, and approximately 30% with parental responsibilities. They were deemed the nontraditional student cluster" (p.48)	Yes
27	Keith	2007	"25 years or older" (Procedure, para 1)	No
28	Kirby	2004	"[S]tudents in a nontraditional, degree-granting weekend college program for working adults" (p.67)	No
29	Kohler Giancola	2009	"[W]hose ages ranged from 20 to 56 years" (p.250)	No
30	Leathwood	2003	"Many of the participants in this study would be regarded as 'non-traditional' students, i.e. those students who are the focus of widening participation policy initiatives." (p.597)	Yes
31	Macari	2005	"In 1996, Horn, writing for the National Center for Educational Statistics (NCES) defined nontraditional students as those who fall into any of the following seven categories: (a) those who delayed enrollment into college, that is, those who did not enroll in college immediately after high school, (b) part-time students, defined as students attending school less than 12 credits a semester or 10 credits a quarter, (c) financially independent students. [The federal government and most colleges and universities define this as any student 24 years and older, however, Horn states that those who do not rely on parents or others for financial support, regardless of age, should be considered financially independent], (d) those who work full-time, defined as working 35 or more hours per week outside of the home, (e) those with dependents other than a spouse including children or other relatives such as a parent or grandparent, (f) single parents, or those who are responsible for more than 50% of their child's upbringing and, (g) those who did not receive a standard high school diploma including those with a high school equivalency degree or who have taken the GED (NCES, 1996). Horn further categorizes nontraditional students by suggesting that the student who faces one of these seven nontraditional characteristics be considered minimally nontraditional, students ascribing to two or three nontraditional characteristics be considered moderately nontraditional, and students who possess four or more of the nontraditional characteristics be considered highly nontraditional. It is this more inclusive definition and description of the nontraditional student that was used in this study." (p.285)	Yes
32	Mello	2004	"[W]ork full- or part-time, have family responsibilities, are over 25 and have delayed enrollment" (p.264)	Yes
33	Menks	1987	"[T]hose who had children less than 18 years old who were living with them while they were enrolled in an occupational therapy curriculum" (p.21)	No
34	Metzner	1987	"Commuter, part-time" (p.15) "Part-time students were defined as students enrolled for less than 12 credit hours." (p.21)	Yes

Table 1. Cont'd.

35	Morris	2003	"Nontraditional college students were defined as 22 years of age or older and as having more multiple roles (i.e. parents, spouses, employees)" (Method, para 1)	No
36	Myers	2004	"[A]ge 25 years and over" (p.41)	No
37	Norris	2011	"[O]lder undergraduates, also known as "nontraditional undergraduates" are defined as college students aged twenty-five and older" (p.176)	Yes
38	Pierceall	2007	"24 years of age or older" (p.708)	Yes
39	Query	1992	"[O]lder than the traditional 17-22 year-old group, enrolled part-time, and employed" (p.84)	No
40	Quimby	2006	"Nontraditional undergraduate students were defined, consistent with extant research, as being at least 25 years of age, off-campus residents, and part-time or full-time students." (p.452)	Partial
41	San Miguel Bauman	2004	"Students were considered nontraditional if they were age 25 or older" (p.14)	Yes
42	Sweet	2007	"[T]hose who enrolled in school at age 25 or later with a gap in school of at least two years after age 22" (p.238)	Yes
43	Villella	1991	"[T]hose who are older (25 years and older), or attend college on a part-time basis, or commute to school, or a combination of these characteristics" (p.334)	Yes
44	Waltman	1997	"Non-traditional students were defined as students 25 years or older or those students who had assumed at least two of the social roles characteristic of adult status such as marriage, parenthood, and financial independence." (p.172)	Yes
45	Yarbrough	1990	"[O]ver the age of 25 who were either returning to school to complete Baccalaureate degrees, teacher certification requirements, or were enrolled in the university for the first time." (p.82)	No

et al., 2006), whereas another suggested that part-time work meant at least nine hours of work a week (Home, 1997).

'Non-traditional students' were defined as being 'married' (Hemby, 1997, 1998; Johnson and Nussbaum, 2012; Waltman, 1997), 'partners' (Chartrand, 1990), 'spouses' (Fortune, 1987; Morris et al., 2003), or not 'single' (Bitner, 1994). In contrast, 'non-traditional students' were also referred to as being 'divorced' or 'widowed' (Hemby, 1997, 1998).

'Non-traditional students' were referred to as being 'parents' (Johnson and Nussbaum, 2012; Chartrand, 1990; Fortune, 1987; Morris et al., 2003; Waltman, 1997), 'with dependents' (Hansen, 1999; Macari et al., 2006), 'with children' (Bitner, 1994), 'caregivers' (Hemby, 1997, 1998; Home, 1997), or having 'family responsibilities' (Hudson et al., 2008; Mello, 2004). One definition specified that 'non-traditional students' were responsible for 'more than 50% of their child's upbringing' (Macari et al., 2006). Three articles provided further description about the characteristics of dependents. A dependent was variously described as a child (Menks and Tupper, 1987), either a child or adult (Home, 1997), or either a child or adult but excluding a spouse (Macari et al., 2006). In addition, a dependent could be related to (Macari et al., 2006; Home, 1997) or simply living with the carer (Menks and Tupper, 1987). A dependent was also defined as having a physical, intellectual, emotional, or learning disability (Home, 1997).

Mode of study

Eight articles included mode of study in the definition of 'non-traditional students'. Half of these articles referred to 'non-traditional students' as students enrolled part-time (Macari et al., 2006; Query et al., 1992; Metzner and Bean, 1987; Villella and Hu, 1991). In contrast, four articles suggested that non-traditional students' status could be applied to those enrolled either part-time or full-time (Quimby and O'Brien, 2006; Hudson et al., 2008; Chartrand, 1992; Adebayo, 2006).

Gap in studies

Seven articles defined 'non-traditional students' as those who had taken time off from formal studies (Mello, 2004; Johnson and Nussbaum, 2012; Bennett et al., 2007; Chang, 2007; Sweet and Moen, 2007; Yarbrough and Schaffer, 1990; DeGregoria, 1987). Three definitions specified the timing in which the break in study occurred, such as between high school and university (Bennett et al., 2007; Chang, 2007), or 'after the age of 22' (Sweet and Moen, 2007). In addition, inconsistencies were found in the duration of the gap in studies. One article defined 'non-traditional students' as those with at least a one year gap in studies (Chang, 2007), while another suggested at least two years away from studies (Sweet and Moen, 2007).

Table 2. Cont'd.

37	Norris	2011	X				
38	Pierceall	2007	X				
39	Query	1992	X	X	X		
40	Quimby	2006	X		X		X
41	San Miguel Bauman	2004	X				
42	Sweet	2007	X			X	
43	Villella	1991	X		X		X
44	Waltman	1997	X	X			
45	Yarbrough	1990	X			X	

Commuter status

Four articles defined 'non-traditional students' as those who did not live on campus (Metzner and Bean, 1987; Villella and Hu, 1991; Chartrand, 1992; Quimby and O'Brien, 2006).

Being demographically 'different' from the norm

Three definitions referred to 'non-traditional students' as being 'different' demographically when compared to the normative student. 'Non-traditional students' were described as being 'historically underrepresented' (Hansen, 1999), 'the focus of widening participation policy initiatives' (Leathwood and O'Connell, 2003) and not being 'age normative' (Bye et al., 2007).

Sex

Three articles referred to 'non-traditional students' as being women (Hansen, 1999; Home, 1997; Hooper and Traupmann, 1983).

Admission pathway

Two articles defined 'non-traditional students' as those who did not follow a normative admission pathway to universities, including students entering university through a 'further education college' (Christie et al., 2008) and those who did not receive 'a standard high school diploma' (Macari et al., 2006).

Enrolment in 'non-traditional' programs

Two articles associated 'non-traditional students' status with the type of program in which they were enrolled, such as 'evening programmes' (Chang, 2007) and 'weekend college program' (Kirby et al., 2004).

Being 'disadvantaged'

Two articles referred to 'non-traditional students' as being 'disadvantaged' in some aspects of their lives.

In this context they were described as being

'underprepared' (Hansen, 1999) and 'from disadvantaged backgrounds' (Christie, 2009). However, in these two instances, no further explanation was provided.

Ethnicity

In one article, 'non-traditional students' were defined as being from 'ethnic minorities' (Hansen, 1999). However, no further elaboration was made in terms of what this meant.

Disability and trauma

Only one article included physical, psychiatric or learning disabilities in the definition of 'non-traditional students' (Hansen, 1999). Furthermore, this article also included experiences of substance misuse, sexual or physical abuse in the definition.

Having a previous degree

'Non-traditional students' were referred to as those

having had 'previously completed a baccalaureate degree' (Everly et al., 1994).

'Non-traditional students' as a continuum

The majority of articles conceptualised 'non-traditional students' as a categorical variable, whereby students were dichotomised into either a 'non-traditional' or 'traditional' group, depending on whether their characteristics met the defining criteria chosen by the authors. On the contrary, one article conceptualised 'non-traditional students' as a continuous variable (Macari et al., 2006). Using a scale developed by Horn (1996), Macari et al. (2006) deemed students to be minimally, moderately or highly non-traditional based on the number of criteria met. The 'non-traditional' criteria were those characteristics which have been shown to be associated with university attrition in previous research, including delayed enrolment and part-time students.

DISCUSSION

There has been a longstanding concern within the field of higher education regarding the lack of consistency in the way the term 'non-traditional students' has been defined in research (Greenland, 1993; Hughes, 1983; Kim et al., 2010). Confirming this problem, the present review shows that the term 'non-traditional students' encompasses a broad range of definitional categories within mental health research conducted in higher education settings.

We found that students have been classified as 'non-traditional' based on 13 categories related to their demographic and educational background, such as age, multiple roles and admission pathway. This study also demonstrates wide variation within each category of meaning, for instance, multiple cut-off ages have been used. Furthermore, there were also differences in the approach in which this term was defined. Although 'non-traditional students' was predominantly conceptualised as a dichotomous variable, one study referred to it as a continuum.

In addition to the lack of consistency in categories involved in the definition of 'non-traditional students', this review demonstrates other problems which may further limit the usefulness of this already ambiguous term. First, around 9% of articles which fulfilled the inclusion criteria did not provide a working definition for 'non-traditional students'. It was therefore impossible for the reader to identify the group of students under study. Second, the sources of definitions were often unreferenced or partially referenced and it was unclear how the authors arrived at their method for categorising 'non-traditional students'. Third, definitions were not always clearly described to a standard permitting replication. In particular, generalised labels such as 'disadvantaged' (Christie, 2009) and

'underprepared' (Hansen, 1999), were mentioned in definitions of 'non-traditional students' without further explanation of their meanings. These limitations are likely to render findings incomparable, regarding the mental health status of students from diverse backgrounds. Future research should therefore address these problems and work towards greater clarity and consistency in which this term is used.

Achieving a consensus definition for 'non-traditional students' is a complex task. One of the challenges suggested by other researchers was the lack of an agreed upon purpose for which the term is used (Greenland, 1993). The origin of the term 'non-traditional students' can be traced back to post-World War II, where changes in political, economic and societal contexts have led to diversification of students' demographics in higher education (Ogren, 2003). The label 'non-traditional students' served to denote students who were "new to higher education and that colleges and universities traditionally have not served people like them", thereby guiding the establishment of policies to meet their needs (Ogren, 2003). However, some groups of students who were once thought of as 'non-traditional' have significantly increased in numbers and are quickly becoming 'traditional' (Bell, 2012; Greenland, 1993). For instance, while a large number of studies included in the present review defined 'non-traditional students' as those over 25 years of age, this group of students represents around 40% of all enrolled undergraduates in the United States in 2013 and a rise of 20% is expected by 2020 (National Center For Education Statistics, 2012; Snyder and Dillow, 2012). Similar trends regarding the changing age profile of university students are also evident in Australia, where the average age of students in 2011 was 26 years 11 months (Australian Council for Educational Research, 2013). Furthermore, recent figures show that 61% of Australian undergraduate students engaged in some form of employment as their primary source of income (Australian Bureau of Statistics, 2013a). Likewise, around 70% of American undergraduates are in paid employment (Davis, 2012). Our findings suggest that despite societal changes, endorsement of common definitions of 'non-traditional students' (e.g. age, multiple roles and mode of study) has not seemed to vary significantly since the 1980s. This indicates that the use of the term 'non-traditional students' today does not necessarily reflect 'under representedness' as suggested by its historical origin and serves little value in communicating a distinct concept. It is recommended that researchers re-examine the purposes for categorising 'non-traditional' status in the contemporary context of educational practice and research. For instance, does 'non-traditional' refer to having characteristics which are uncommon among the majority of students? Or does it refer to having characteristics which predispose university students to non-completion of their educational degree/program? A more consistent definition of 'non-traditional students' better

aligned with this purpose can then be developed, taking into account on-going changes in student demographics as well as progress of higher education systems in responding to these changes.

As shown in the findings, 'non-traditional students' is a fluid concept within the literature and its meaning is likely to vary depending on the societal, geographical and systemic context in which the research is conducted. The authors therefore would not attempt to propose another definition of 'non-traditional students'. However, there is still a practical need for nuanced approaches in classifying 'non-traditional students' which consider a broad range of student characteristics (Kim et al., 2010). Given current difficulties in identifying a consistent researcher-assigned definition for 'non-traditional students', a student-centred approach of definition, which involves eliciting students' self-beliefs about whether they are 'non-traditional' and why, may be a promising alternative. The benefits of this approach are that it reduces the need for researchers to predefine the term, and it minimises the problem of overlapping 'traditional' and 'non-traditional' characteristics. It is common for 'non-traditional students' to present some characteristics which are typically 'traditional'. Kim et al. (2010) argued that many students under the age of 25, who are often considered as 'traditional', have work and family responsibilities. On the contrary, some older students do not have these responsibilities. Self-definition represents a means to categorise students with overlapping characteristics of student status. We identified only one study that has adopted the student-centred definition (Kim et al., 2010) and therefore more research is needed to compare its usefulness in drawing meaningful conclusion with that of traditional approaches. This will ultimately contribute to the progress of research concerning student diversity in higher education.

Another contribution of the present study is that it documents the adaptation and application of a tool originally developed for systematically reviewing empirical health research (Joanna Briggs Institute, 2011). Research in any discipline often requires the clarification of key concepts under study. However, it has been critiqued that this process is sometimes overlooked by researchers, leading to methodological problems (Baldwin, 2008). The systematic review methodology has been increasingly used in reviewing definitions but no published tool for this purpose currently exists. This study offers a data extraction and appraisal tool for systematic review of definitions which can be adopted and refined by future research.

The current study has a number of limitations. First, it only included peer-reviewed literature and not grey literature (e.g. government reports, conference proceedings). Future studies may seek to review grey literature to gain a clearer understanding of how this concept is used more broadly. Furthermore, the scope of the search was confined to studies of mental health. For

instance, a number of studies relating to academic achievement, attrition or attitude towards education of 'non-traditional students' were excluded (Munro, 2011; Devlin, 1996). The present study therefore cannot be taken as an exhaustive review of all published definitions of the term 'non-traditional students'. Future studies which review definitions used in the broader education literature would complement the findings of this study.

In conclusion, this study represents the first systematic review of the definitions of 'non-traditional students' within mental health research conducted within a higher education setting. It provides a summary of criteria adopted in existing definitions which can be a useful resource to facilitate communication among those working with students, including educators, mental health professionals, and policymakers. It might also stimulate discussions about more consistent definitions of 'non-traditional students', which would ultimately identify a common approach for research seeking to understand the needs of this diverse student group.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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Appendix 1. Data extraction and critical appraisal tool. Critical Appraisal Tool for a systematic review of the definitions of 'non-traditional students' in tertiary education. Part 1. Background information (Mark as many as applied for each item).

1. First author (Year)
 Title
 Name of Publication

2. Source Journal article Others: _____
 Book chapter

3. Study method Quantitative Qualitative
 Mixed method study

4. Country in which study was conducted

5. Type of tertiary education institution in which study was conducted University/ College Unspecified
 Community College Others: _____
 Vocational institution

6. Year level of participants Undergraduate Unspecified
 Diploma/ Certificate Others: _____
 Postgraduate

7. Discipline of participants Discipline specific Non-discipline specific
Insert discipline here:

8. General definition³ Yes No
Insert verbatim definition and page number here:
³*Broad defining statements in relation to previous research, but not so that one can readily infer that it applies to current study.*
 *Use '(NV)' to indicate non-verbatim responses (if any).

9. Working Definition⁴ Yes No
Insert verbatim definition and page number here:
⁴*Statements made in background or methods section, for the purposes of the current study (or words to that effect), that a specific definition has been applied.*
 *Use '(NV)' to indicate non-verbatim responses (if any).
 Skip to Part 2 if no definition can be extracted.

10. Categories included in working definition

<input type="checkbox"/> Age	<input type="checkbox"/> Mode of study (Part time/ Full time)
<input type="checkbox"/> Being demographically 'different' from norm	<input type="checkbox"/> Multiple roles
<input type="checkbox"/> Cultural or ethnic background	<input type="checkbox"/> Parent
<input type="checkbox"/> Indigenous b/g	<input type="checkbox"/> Spouse
<input type="checkbox"/> Other minority b/g	<input type="checkbox"/> Employee
<input type="checkbox"/> Not specified	<input type="checkbox"/> Other role _____
<input type="checkbox"/> Disability	<input type="checkbox"/> Not specified
<input type="checkbox"/> Enrolment in a 'nontraditional' program	<input type="checkbox"/> Non-campus resident (i.e. commuter)
<input type="checkbox"/> 'First in family' to enter tertiary instit.	<input type="checkbox"/> 'Nontraditional' admission pathway
<input type="checkbox"/> One parent not entered	<input type="checkbox"/> Required academic support
<input type="checkbox"/> Both parents not entered	<input type="checkbox"/> Rural/ remote geographical b/g
<input type="checkbox"/> Not specified	<input type="checkbox"/> Sex
<input type="checkbox"/> Having previous degree(s)	<input type="checkbox"/> Other characteristics:
<input type="checkbox"/> Life experience	
<input type="checkbox"/> Low socioeconomic status	
<input type="checkbox"/> Method of categorising SES: _____ _____	
<input type="checkbox"/> Method of categorising SES not specified	

Part 2. Quality of working definitions.

1. Is the working definition identified?

- Yes, explicit statement made in reference to the study sample
- No, only general statements made (End of appraisal)
- No reference to a definition at all (End of appraisal)

Comment:

2. Is the working definition clear and unambiguous enough for study replication?

- Yes
- No

Comment:

3. Is the working definition referenced from the extant literature and any incongruency with it logically explained?

- Yes
- Unclear
- No

Comment:
