Struggle and failure on clinical placements: A critical narrative review

Abstract

Background

Clinical placements are crucial to the development of skills and competencies in speech-language pathology education and more generally, a requirement of all health professional training programs. Literature from medical education provides a context for understanding how the environment can be vital to all students' learning. Given the increasing costs of education and demands on health services, students who struggle or fail on clinical placement place additional burden on educators. Therefore, if more is known or understood about these students and their experience in relation to the clinical learning environment, appropriate strategies and support can be provided to reduce the burden. However, this literature does not specifically explore marginal or failing students and their experience.

Aims

The aim of this paper is to review existing research that has explored failing and struggling health professional students undertaking clinical placements and in particular speech-language pathology (SLP) students.

Methods

A critical narrative review was undertaken. Three electronic data bases ProQuest, CINAHL and OVID (Medline 1948-) were searched for papers exploring marginal and failing students in clinical placement contexts across all health professions, published between 1988 and 2017. Data were extracted and examined to determine the breadth of the existing research, and publications were critically appraised and major research themes were identified.

Main contribution

Sixty-nine papers were included in the review. The majority came from medicine and nursing in the USA and UK with other allied health disciplines less well represented. The review identified key themes with the majority of papers focused on *identification of at risk students* and *support and remediation*. The review also highlighted the absence of literature relating to the student voice and in the allied health professions.

Conclusions

This review highlighted the limited research related to failing/struggling student learning in clinical contexts, and only a handful of papers have specifically addressed marginal or failing students in allied health professions. The complexity of interrelated factors in this field has been highlighted in this review. Further research needs to include the student's voice to develop greater understanding and insights of struggle and failure in clinical contexts.

Introduction

Clinical placements are a core part of becoming a speech-language pathologist or any health professional. This clinical learning component has a growing body of research surrounding it, particularly in medical education e.g. (van der Zwet et al., 2011), developing a better understanding of how all students learn on placement. Professional organisations or bodies stipulate that programs need to have these practical or clinical components (Health and Care Professions Council., 2014). The placements and the educators serve as an important gatekeeping mechanism to ensure safe practice and patient safety. Therefore, passing this component of a course is mandatory to become a qualified, safe, ethical practitioner, however, in any given cohort, a small number of students may struggle in their placements and/or fail them. For the purposes of this paper failure means the student not reaching the required level of competence to pass a subject or placement as part of their training to become a health

professional and struggle means being identified ‘at risk of failure’ before the end assessment point.

The research team for this paper are all speech-language pathologists from Australia and have first-hand experience supporting students and their educators during clinical placements. Over the years many stories have been told and heard, building up a bank of anecdotal evidence, which lead to asking the questions: ‘What is really known about failure and struggle in programs that have clinical placements?’ and ‘What do these students really look like?’ Are the experiences as a university educator consistent with the literature? Could the literature assist to better understand the students and educators and how to be able to support them more effectively and efficiently.

As educators working in the university system there is an expectation of providing a service to the students, with often limited resources. Workloads are calculated carefully, there is a need to work efficiently (Jensen and Morgan, 2009). For clinical placement subjects, each student is allocated a small proportion of time for support, yet a proportion of students year in year out seemed to take much more time than their allocations. Whilst this marginal group may be few the proportion of resources they take is large. The costs of failure have long been documented (Ryan, 2005), both financial and emotional, to the student and educators. Ensuring that resources are appropriate, available and efficiently employed for students is a key driver for this review, in addition to ensuring that future graduates are safe practitioners.

Understanding the wider education context and its associated costs (financial and emotional) and the university context is also important to fully grasp the complexity and interactive factors at play regarding struggling and failing students. The research team had experiences of stories of relationship and communication breakdown and complex interrelated factors surrounding students’ learning. Tertiary education is increasingly costly. The cost of higher education in the United States has risen by more than six times the rate of inflation since 1971 (Shoen, 2015). In recent times more and more students in Australia have needed to work whilst studying to support themselves, with the same being true in UK although some health

professional students have their tuition fees funded (NHS, 2015). In the United States students pay large sums of money for their education for extended periods of time as SLP degrees are at masters level. Added to the tuition costs, clinical placements place further financial strain on students - that is they often can't work at same time or they need to reduce work hours to attend clinical placement. In some cases they are required to live away from their primary place of residence to complete placement (sometimes paying double rent or higher rents for short term accommodation). As a result students expect placements will be of a certain standard, the student being the 'consumer' (Hil, 2012) of this 'service' their University is providing for them. As a result students who struggle and/or fail a placement are often under increased pressure, and therefore place greater demands on their University for support and additional placements or learning opportunities.

At the same time, government funding to universities is decreasing, often meaning already limited resources must stretch further. For example in Australia, in 2014, an announcement was made to cut funding to higher education by $1.1 billion between 2015 and 2018, effectively reducing the number of government supported places at universities, with students paying more for their education (Bexley, 2014). Financial worries have been documented to be one of the main stressors for students today (Simpson and Ferguson, 2012), which can then impact on their mental health and ability to perform on clinical placement.

The literature in mental health indicates when people are stressed, pre-occupied with other thoughts or worried about something significant, learning may be disrupted (Simpson and Ferguson, 2012). More students than ever in higher education worldwide are accessing support services for mental health problems (Hunt and Eisenberg, 2010, Simpson and Ferguson, 2012). Simpson and Ferguson (2012) highlight the relationship between mental health and academic performance. They indicate that students who have untreated mental health problems are more likely to leave university before completing their studies.

Considering Maslow's hierarchy of needs may assist to contextualise what happens to struggling students as, if stress or illness impacts them, they may not be able to achieve any higher order needs in the hierarchy such as self-actualisation, i.e., fulfilling their full potential as

a speech-language pathology or health professional student. In their qualitative analysis of focus groups of 174 medical students, Gan and Snell (2014) found that there is a complex interplay of personal and environmental factors in students' perceptions of sub-optimal learning. For example, if students are stressed about income, housing or their health, then their learning will be pushed down the hierarchy and they are not likely to perform to their potential (Gan and Snell, 2014).

These factors— the added financial pressures of the increased cost of education, paying large sums of money to complete their placements and degrees—could be one of the major contributing influences to student stress and anxiety, particularly during their clinical placements and learning in the workplace. So, whilst these factors may not fully explain why students may struggle or fail, this complex interplay of factors needs consideration and understanding. Shapiro et al. (2002) found that students tended to have difficulties in more than one area i.e. academic, clinical and/or 'other' which included personal or health problems. This seemed to fit with the team's experience, but it was not conclusive evidence. Looking to other professions in addition to speech-language pathology was the next logical step.

Leading on from the initial questions raised at the start of this paper this critical narrative review has four broad aims:

1. To identify speech-language pathology research and research from other health professions relating to struggling and failing students
2. To identify what is already known about struggling and failing students in the research
3. To identify if the literature can assist with managing struggling and failing speech-language pathology students
4. To identify gaps in knowledge and recommend approaches, methods and questions for future research.

Method

A critical narrative review, incorporating some of the methods used by Pickering and Byrne (2014), was employed to address the aims listed above.

Three electronic databases, ProQuest, CINAHL and OVID (Medline 1948-) were searched using key search terms and specific inclusion criteria. These data bases were selected to cover the main health professions including medicine, nursing and the allied health professions. The search combined the terms ('speech language pathology student' OR 'medical student' OR 'health occupations student' OR 'allied health occupations student') AND (characteristics OR behavio*OR traits OR competencies) AND (fail*OR marginal performance OR struggling). Terms were experimented with before running the full searches e.g. 'poor performance' was also tried but this yielded zero publications. This initial search was limited to peer reviewed articles written or translated to English and published between 1988 and 2017. Papers were included if they specifically related to tertiary level students in an entry-level degree in a health care profession. Entry-level in medicine was anything that was considered to be pre-consultant level, that is, post-graduate education for registrars or interns was included. The reason being competency in medicine is not deemed to have been reached until a doctor reaches consultant level with specific training including assessments and examinations continuing. In other health professions competency is deemed to have been reached on graduation. Papers that investigated academic achievement and competency of failing and marginal students were also included as these papers often examined the overall achievement of the student. Editorials, opinion pieces and reviews were also identified to provide an indication of what topics and areas were 'hot topics' of discussion.

This initial search strategy yielded 1338 publications. Once duplicates were taken out and content checked to match inclusion criteria, 69 publications remained for review and data extraction. Each paper was reviewed by the first author and identifying data was extracted from each paper: authors' names, affiliations, journal, year of publication, discipline and location and

put into a spreadsheet. The third author then checked the data in the spreadsheet to ensure the extracted data was accurate.

As part of the critical review process additional information was extracted from each of the papers: including, the main focus of research, study design and methods used (e.g. focus groups, surveys, interviews etc.) numbers of participants and participant characteristics (e.g. educator, university faculty, students) and the strengths and limitations of the research. Identifying the focus of the research was an iterative process, with the primary author making revisions as the papers were reviewed. A thematic approach was taken to identifying the main foci of the research. Themes were identified by looking at key terms that appeared in the publications such as 'identification', 'prediction' or 'remediation'. As terms were identified the first author went back and rechecked publications already reviewed in this iterative process. The themes were then checked with two other authors. This data was checked in the spreadsheet with a sample of publications. Some key terms could be collapsed into overarching themes such as feeding forward/feedback, remediation, resource support, emotional support and learning support were all determined to come under the 'support and remediation' umbrella. This assisted in developing a picture of how struggle and failure in clinical learning has been researched and viewed to date.

Results

Nature and type of research

Out of the 1338 publications we identified, 69 papers were eligible for inclusion in the review.

Table 1 presents all publications sourced, their year and country of publication.

Table 1. References sourced from searches in OVID (Medline 1948-), ProQuest and CINAHL

Publication authors	**Date of publication**	**Country**
Hendren	1988	US
Gravely & Stanley	1993	US
Caldwell et al.	1996	US
Gutman et al.	1997	US
Cariaga-Lo et al.	1997	US
Shen et al.	1997	US
Duffy & Scott	1998	UK
Hrobsky et al,	2002	US
Robshaw & Smith	2004	UK
Higgins	2004	UK
McGregor	2005	CA
Stern et al.	2005	US
Jewell & Riddle	2005	US
Yates & James	2006	UK
Denison et al.	2006	UK
Dowell et al.	2006	UK
McGregor, A	2007	CA
Skingley et al.	2007	UK
Rutkowski	2007	UK
Sifford et al.	2007	US
Cleland et al.	2008	UK
Cleland et al.	2008	UK
Durning et al.	2008	US
McGann & Thompson	2008	US
Frellsen et al.	2009	US
Laatsch	2009	US
Neely	2009	US
Park et al.	2009	Korea
Chang et al.	2009	USA
Hauer	2009	USA
Yates & James	2010	UK
Courmabat et al.	2010	US
Andujar et al.	2010	France
Yates, J	2011	UK
Artino et al.	2011	US
Wilkinson et al.	2011	NZ
Stegers-Jager et al.	2011	HOL
Klamen & Williams	2011	US
Shin et al.	2011	Korea
Lewallen et al.	2012	US
Attril et al.	2012	AU
Garrud & Yates	2012	UK

Winston et al.	2012	HOL
Todres et al.	2012	UK
Jones & Tracey	2012	UK
Stevens, E	2013	UK
Audetat et al.	2013	CA
Mavis et al.	2013	US
Wiskin et al.	2013	UK
James & Yates	2013	UK
Cleland et al.	2013	UK
McDougle et al.	2013	US
Andyryka et al.	2014	US
Corcoran et al.	2014	US
Black et al.	2014	UK
Mark-van der Vossen et al.	2014	UK
Guerrsasio et al.	2014	US
Docherty & Dieckmann	2015	US
Pitt et al.	2015	AU
Vinales	2015	UK
Samouei et al.	2015	Iran
Hemann et al.	2015	US
Bierer et al.	2015	US
Adam et al.	2015	US
Carr et al.	2016	UK
Nixon et al.	2016	US
O'Neill et al.	2016	Denmark
Jardine et al.	2017	NZ

Figure 1 presents the number of publications related to struggling and failing students in clinical placement over the past 30 years. The majority were published in the past 11 years, between 2006 and 2017 (n=55, 79%). Most of the publications came from the disciplines of medicine (n=47, 68%) and nursing (n=19, 27%) and were conducted in the USA (n=30, 43%) and UK (n=25, 36%). Three studies were from Canada, two each from Korea, New Zealand, Australia and the Netherlands and one each from Iran, France and Denmark.

Three other health disciplines were represented in the literature with one paper each (1.4%), physiotherapy, occupational therapy and speech pathology.

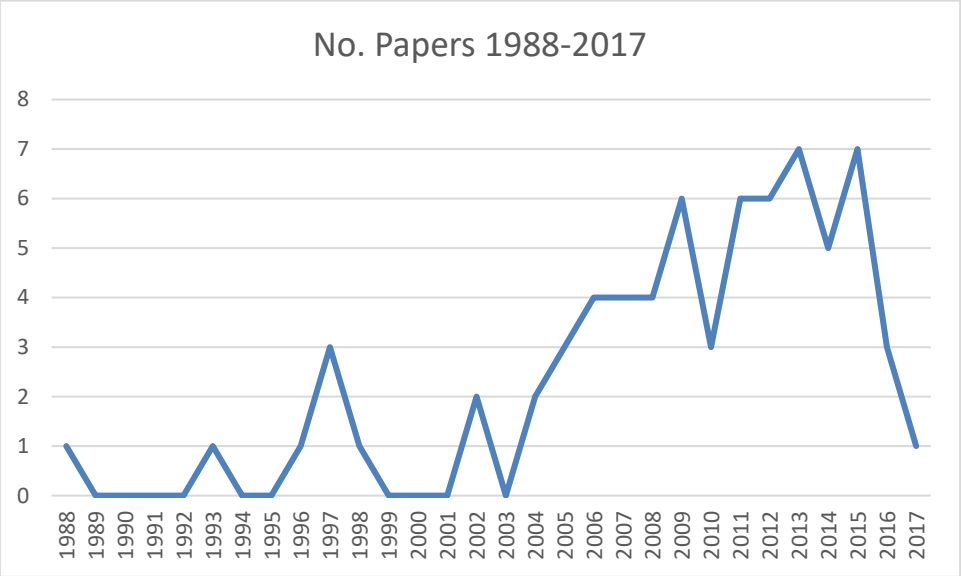

Figure 1. Published research over last twenty years (1988-2017)

Main focus of research and theoretical perspectives

As part of the review process major themes or areas of focus were identified in the publications. These are presented below.

The publications focused on five main themes, *'Identification of at risk students'*, *'Support and remediation'*, *'The lived experience'*, *'Failure to fail'* and *'Consequences for progression'*. The majority of research papers examined one specific aspect of failure or struggle, hence the main focus of the publication or research was readily identified e.g. (Yates and James, 2006, Garrud and Yates, 2012). Whilst this provides insight into specific information about students who struggle or fail clinical placement, it ignores the complex nature of learning in the clinical workplace.

Identification of at risk students and support and remediation

The majority of the publications focused on identification of students at risk of failing (n=38, 55%) and support and remediation for struggling or failing students (n=24, 35%). A small proportion of these publications examined both identification and support or remediation (n=6, 9%), hence the results for these two areas are being presented together.

Most publications looking at identification of at risk students came from medicine (n=31, 44%) and had a very narrow view of the area of research, and only examined risk factors or predictors of failure in isolation (Gutman et al., 1997, Garrud and Yates, 2012, Yates, 2011, Yates and James, 2010, Yates and James, 2006, Wilkinson et al., 2011, Cleland et al., 2008b, Corcoran et al., 2014, Durning et al., 2008, James et al., 2013). However, other authors did emphasise the importance of the learning context and its complexity (Wiskin et al., 2013, Winston et al., 2012).

Most papers ignored the complexity of learning, failure or struggle e.g. (Artino et al., 2011, Andyryka et al., 2014) investigating 'at risk' behaviours e.g. (Yates and James, 2010, James et al., 2013) or characteristics or behaviours of failure e.g. (Laatsch, 2009, Hendren, 1988) using retrospective cohort studies. For example Andyryka et al. (2014) talked about medical school being analogous to "drinking from a fire hose"; the implication being that medical students are vessels being filled up with knowledge at an alarming rate. Which may be

partially correct however, it largely ignores the complexity and social aspect of learning, where students interact with educators, clients or patients as well as the environment around them.

In their research, Artino et al. (2011) suggested the locus of control resides with the student and did not consider other environmental factors that may impact on learning. They investigated self-regulated learning behaviour in 248 students over a two-year clinical reasoning course. They found that higher performing students placed greater value on learning activities and had higher levels of confidence than lower performing students, who had greater course anxiety and higher levels of boredom and frustration. They largely ignored the impact others and the environment can have on learning.

The literature that discussed support and remediation for struggling and failing students investigated the provision of remediation programs for students to improve outcomes after resitting assessments e.g. (Mavis et al., 2013, Hrobsky and Kersbergen, 2002, Caldwell and Tenofsky, 1996, Denison et al., 2006). Cleland et al. (2013) presented a very thorough systematic review of this literature arguing that most intervention or remediation studies were poorly designed with few control groups and were unable to identify the active component of the remedial process. Their findings support the results of this review in that most of the research in this area has taken place in the last 10 years. They summarise their findings by stating that the reasons for poor performance are complex and that we are not dealing with a homogeneous group. Some researchers acknowledged the need for early identification of risk factors or 'red flags' in order to provide timely support (Denison et al., 2006), whilst others stated the need for providing support to all involved in the process including educators (Hrobsky and Kersbergen, 2002). Neely (2009), for example, in his letter to the editor, questioned whether some struggling students can actually be assisted because they cannot *"step outside of themselves to see themselves as they are perceived by others*". He implied failure or struggle resides with the student only, agreeing with Artino et al. (2011) above. Audetat et al. (2013) suggested that appropriate remediation programs for struggling students and supports for teachers need to be in place. The commonality in all of this work is the view that learning and failure resides with the student, ignoring the complex interplay of factors.

Wiskin et al. (2013) took a less narrowed view in their research where they surveyed 29 out of 33 UK medical schools to examine how they support and assist students who fail communication assessments. They acknowledged the breadth of research that currently exists investigating variables (largely in isolation) that identify potential struggling or failing students, such as gender, ethnicity, English language proficiency and academic performance results. They also found that the supports available were variable and ad hoc and depended on a number of factors, as Cleland et al. (2013) found. Cleland et al's. (2013) review suggests that despite all of the research identifying potentially struggling or failing students the remediation programs for these students are at best haphazard, with no clear rationales or ability to identify the active component of the remedial process. Many papers in our review, indeed, examined some of these variables in isolation (Yates and James, 2006, Yates, 2011, Garrud and Yates, 2012, James et al., 2013).

Wiskin et al. (2013) also suggested that there is little research to date looking at the remediation of poor communication skills in medical students, which can impact on becoming effective practitioners. They acknowledge the importance of communication and social interactions in the role of a doctor. Their results indicated that few medical schools had identified programs of support to assist students who struggled with communication. They suggested more support could be provided on a less ad hoc basis in some medical schools and that targeted well planned supports are needed.

Communication skills are the core business of a speech-language pathologist. Attrill et al. (2012) examined international students' performance on placement in ten universities, with speech pathology programs in Australia and New Zealand. Their research suggested that students who come from a culturally and linguistically diverse (CALD) background may have more difficulties developing competencies on clinical placements, regardless of whether they are domestic or international students. This was consistent with other disciplines (Yates, 2011, Yates and James, 2006). They also overtly stated that the clinical learning situation is complex

and students need several skills to *'negotiate the rules of the clinical environment'* (Attrill et al., 2012).

One paper in this review did find that students were in actual fact able to successfully create their own remediation program (Bierer et al., 2015). The results are from one cohort of students at one medical school and so should be interpreted with caution but it does support the notion that students should be consulted more widely in this area of research.

Winston et al. (2012) discussed the complexity of workplace learning and remediation for struggling students, overtly stating that they deliberately took on a variety of lenses due to the complex nature of learning and the interactive nature of its constituent components. They used a mixed methods approach investigating different stakeholders' perspectives in their research. By drawing on different theoretical lenses they could develop a remediation program that worked for a group of failing medical students in a particular context. The authors cautioned that human functioning in complex systems is unpredictable and remediation programs need to cater for the student's emotional needs as well as the cognitive and meta-cognitive skills needed for learning.

The lived experience

Three papers in particular examined the 'lived experience' of students and clinical educators (McGregor, 2005, McGregor, 2007, Black et al., 2014). McGregor (2005), (2007) in his two papers, investigated two individual students' experiences of threat of failure and actual failure. The research acknowledged the human centred nature of learning in the clinical workplace and the importance of the interactions and relationship between learner and educator, highlighting the humanistic side of learning. Black et al. (2014) looked at the experiences of 19 nurse mentors, through in-depth interviews, who failed students on placement. Their research also highlighted the humanistic aspect of learning. i.e. emotions and relationships are involved adding to the complex interplay of factors involved in struggle and failure. The approach and methods of these three publications was different from other research papers examined in the

review. These authors were the only ones that really looked at the student experience from the student perspective.

Failure to fail

The concept of 'failure to fail' describes the situation where educators pass marginal students who, arguably, may continue to struggle or go on to graduate without reaching sufficient competence for practice and go on to be 'weak' practitioners. Eleven publications (16%) discussed this concept. Some acknowledged the complex interactions that occur between educators and students on placements, with educators often experiencing strong emotional reactions when supporting struggling or failing students (Black et al., 2014) .

Some authors, whilst indicating the importance of communication and developing rapport with educators and clients, attributed the failure to a characteristic the student holds (Lewallen and DeBrew, 2012, Skingley et al., 2007, Stevens, 2013). It is often easier to 'lay the blame' with the student and avoid taking any responsibility for failing them. The student and educator appeared to be dichotomous components that were separate or the educator had an omnipotent role, not affecting the student in any way. Rather than taking any responsibility for failing a student the benefit of the doubt is given.

Cleland et al. (2008a) suggested an alternate theoretical model for understanding the concept of failure to fail and the reasons why educators may fail to fail students, which encompassed environmental factors in addition to student centred elements. There was agreement amongst the researchers that educators feel pressured to pass students (Rutkowski, 2007, McGregor, 2007, Cleland et al., 2008a, Stevens, 2013, Skingley et al., 2007, Lewallen and DeBrew, 2012, Black et al., 2014) and therefore perhaps pass a percentage of students who should really have failed. The numbers of students who are passed and perhaps should not be was not presented in any of the publications in this review.

Consequences for progression

Two papers (3%) from the themes legal and ethical responsibility and dropping out have been put under the umbrella of ‘consequences for progression’. Stegers-Jager et al. (2011) investigated the dropout rate of 809 medical students prior to and 809 students following the implementation of an academic dismissal policy over a four-year period. They found that having a policy did not affect dropout rates but the students who were in the academic dismissal policy cohorts were more likely to seek assistance for their problems, therefore those students who were identified as struggling or failing were more likely to seek assistance if a dismissal policy was in place.

Graveley and Stanley (1993) set out guidelines, in their position paper, based on experience not research, for what faculty might do in terms of documenting and clearly communicating a student's progress or lack thereof, discussing the legal responsibilities of faculty when a student fails clinical placement. They highlight the importance of clear, transparent guidelines and communication when failing a student and they acknowledge how difficult the process of failing a student is.

Discussion

This review has revealed that there has been an increase in research relating to struggling and failing students in the health professions in the last ten years. However, the reasons for most of the research coming from medicine and nursing are not clear. It is hypothesised that the push to retain students, the costs associated with struggle and failure and the need to graduate safe practitioners are correlated with this increase in research publications. There were fewer outputs from the allied health professions, perhaps because they are smaller than medicine and nursing and it is likely therefore, by proportion, they have fewer outputs. The implications for this however mean that smaller disciplines may need to look to the larger professions for patterns, findings, commonalities and signposts of where to go in their own disciplines, as was hypothesised earlier in this paper and hence prompted the method for this review. Questions

around generalisability, transferability and applicability to different disciplines should be considered carefully along with applicability to other settings, cultures and countries.

Research relating to struggling and failing students to date has been mainly conducted in the areas of identification, support and remediation, particularly in the disciplines of medicine and nursing. Identification of risk factors in students indicates that failure largely resides with the student, presenting with risk factors such as coming from a lower socio-economic backgrounds, (Yates and James, 2010) having English as a second language, (Attrill et al., 2012) and having lower academic grades (Cleland et al., 2008b).

The reasons for the higher proportion of publications focusing on identification and remediation could be related to cost. Failure and struggle has implications for all stakeholders involved (Corcoran et al., 2014, Wiskin et al., 2013, Yates, 2011, Neely, 2009). As education costs have risen over the years (Shoen, 2015) and funding has decreased (Bexley, 2014), institutions prioritise supporting and enhancing the student experience to achieve low dropout rates and high progress and completion rates in their degree programs (Hil, 2012). It is therefore important to ensure the appropriate support is provided to struggling students and/or those who go on to fail. The costs to the patients are also potentially great if the practitioner is weak, as Cleland et al. (2013) mentions in their review of the literature investigating remediation for struggling medical students. They quite rightly identify that weak students will often go on to be weak practitioners, which is of concern for all disciplines not just medicine. Cleland et al. (2013) also reported that current remediation programs are not of a high quality and are usually not clear on what the active component or strategies are, none of which are supported by evidence and this is concerning, especially when programs want to retain students and graduate safe practitioners.

The dearth of research investigating both risk factors or predictors and strategies to remediate these issues is also of a concern. As Cleland et al. (2013) notes the reasons for poor performance are myriad; poor performers are not a homogeneous group, therefore looking at these factors in isolation does not really present the full picture. As Cleland et al. (2013) suggest

further research in this area is required looking at the complexity of factors and complex interventions.

This review found that very few publications were from allied health and Cleland et al. (2013) also acknowledge they did not review the literature in the allied health professions. This indicates that there is not a plethora of knowledge or high quality evidence for successful remediation programs across the allied health professions at all and further research is required. Factors identified as possible pressures and risk factors for students learning today, such as financial pressures and stress and mental health are largely ignored in the literature to date. These risk factors need to be factored into the complex picture and be researched further.

A very apparent gap in the research was the lived experience of the struggling student, with only single case studies, and the voice of the struggling student was largely absent from the literature base. It appears from what research has been published, that this perspective may be important to further understand the whole learning context and complex nature of this area. Perhaps investigating the student voice and lived experience can help inform other areas of the research agenda such as risk factors and predictors as well as assisting to inform what may be beneficial for students in a remediation program. Indeed the one paper in this review that did find that students were in actual fact able to successfully create their own remediation program (Bierer et al., 2015) is a flag to indicate that the student voice should be considered in any future research and they should be consulted more widely.

When considering the consequences of failure the two papers that arose in this review suggest that clear policies and documentation are needed for all involved (Stegers-Jager et al., 2011, Graveley and Stanley, 1993). This finding could suggest that universities and institutions should have clear policies and documentation around dismissal and accessing supports if they do not already, this could prompt failing or struggling students to access supports if they have not done so already but also provide the educators with a clear paper trail of documentation to fail a student if necessary.

This review also suggests ‘failure to fail’ is a very real phenomenon that is present for educators of struggling and failing students and their experience of the emotional impact of this

is well documented (Cleland et al., 2008a, Stevens, 2013, Skingley et al., 2007, Lewallen and DeBrew, 2012, McGregor, 2007, Rutkowski, 2007, Black et al., 2014). Having clear policies and documentation may assist in identifying students earlier on in their degrees, supporting clinical educators to fail students when appropriate and provide the students and educators with adequate and appropriate support strategies. The literature in this area of failure to fail also supports the complexity of struggle and failure.

The role educators play in the failure scenario also needs to be carefully considered, currently educators appear to be largely seen as an 'agent', assisting the student to pass (Stevens, 2013). Several research papers have identified that they too need appropriate supports following the failure of a student (Hrobsky and Kersbergen, 2002, Denison et al., 2006), however, the research lacks acknowledgement of the interactive and dynamic nature of learning in the clinical setting. The learning environment can be seen as a complex system where the components are not static and are interactive (Mason, 2008). This is apparent in the current research in medical education investigating learning as a whole, but appears to be largely ignored to date for failing and marginal students. As mentioned earlier in this paper risk factors and various supports are variables that, to date, have largely been researched in isolation.

Mason (2008) argues it is perhaps easier to reduce things down to isolated variables to research them but this simplification does not tell the whole story of failure and struggle, it is only one part of the truth or one reality. There is an argument here for investigating specific variables and the bigger picture together. From a social constructivist perspective there are many truths and realities (Liamputtong, 2012), and as educators and researchers we should be open to this. Cleland et al. (2013) do acknowledge that the literature to date investigating remediation interventions has not really considered the complexity and they suggest that adopting complex intervention models *'...would enable the identification and evaluation of key components of any intervention, progressing knowledge of what does and does not work.' (p. 249).* The literature in medical education which examines how learning occurs for the mass student population might be usefully applied here to the struggling student and speech-language pathology students. The voice of the struggling student needs to be heard to allow these many

truths to emerge, by doing this only then can we aim to begin to understand and observe the many realities of struggle and failure. These reasons coupled with cost related factors to all stake holders indicate there is more research to be carried out relating to struggling and failing health students on clinical placements.

Limitations

This review provides a current, critical review of the literature investigating struggling and failing students in the clinical learning environment. The search terms deliberately focused on health professional students. Despite this some health professions were not captured in the search e.g. social work and they could be applicable to speech-language pathology. By including 'social work students' in future searches more specific literature and research may be found that did not appear in this review. The research team have deliberately focused on research and literature published in English such as US, UK and NZ. Whilst some publications are from other countries, those with 'like systems' and programs perhaps provide the best comparisons at the current time.

Summary

This review paper has highlighted that the majority of research in this area has occurred in the last ten years in medicine and nursing. The research in allied health professions is sparse, with only one paper from speech-language pathology in this review. Much of the research has investigated risk factors and predictors of failure in isolation (Yates and James, 2006, Yates, 2011, Garrud and Yates, 2012, James et al., 2013), and remediation for struggling and failing students is 'haphazard' and non-specific (Cleland et al., 2013). It is apparent that this area is complex and further research investigating the complexity of interrelating factors is needed. In view of needing to work more efficiently university educators need to know that remediation programs are targeting what they are meant to target with learning targeted not just assessment outcomes. For speech-language pathologists there is a need to currently look to other

professions for research in this area due to the sparse nature of the research in our own profession, and this review has done this. Including the student voice in future research is essential if a true understanding of struggle and failure for the student is to be gained.

What this paper adds

- This paper provides an overview of the main focus areas researched in relation to struggling and failing students to date and which disciplines have carried out the research.
- There is a gap in the representation of the struggling and failing student SLP voice in the research, which should be researched further.
- Struggle and failure is complex and these students are not a homogeneous group.

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