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A qualitative study examining the preparedness of dental hygiene students for a service-learning placement in residential aged care

Abstract: *Introduction:* The aim of this qualitative study was to measure the effect of a specifically designed orientation re-enactment DVD used to facilitate dental hygiene students transition from the classroom to a Residential Aged Care Facility (RACF) service-learning placement with less personal anxiety and more confidence in their role during the placement. *Methodology:* Final year students ($n = 47$) were randomly allocated to one of 17 RACFs on the NSW, Central Coast, Australia. All students were then randomly allocated to a two-group study with the active group assigned to view the DVD prior to their placement. Students who viewed the DVD were asked not to discuss the content with students who were assigned to the control group. Post-placement focus groups were organized, recorded and transcribed verbatim. Data were collated, analysed and unitized into emergent themes. Representative quotes are presented in the results. The study was informed by 4 years of previous quantitative and qualitative process evaluation of the RACF programme. *Results:* Focus group discussions identified that those students who had seen the DVD reported a shorter timeframe to successfully transition from the classroom to the RACF and stated that the DVD provided them with a realistic expectation of the RACF environment and their role in the placement experience. *Conclusion:* The orientation DVD reduced student anxiety and improved student confidence in their role during the placement by providing a realistic orientation of the RACF environment.

Key words: clinical placements; dental hygienist; elderly; service learning; student

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Introduction

Providing student health professionals with a variety of experiences during their studies, particularly with populations that historically have been underserved, offers them the opportunity to recognize the importance of community health services and their own role in service provision (1, 2). Community placement programmes for university students are well established (3–5) with service-learning community placements providing students with a connection between classroom learning in such a way that it makes the theoretical understanding more informed by experiencing learning in the 'real world' (6). Service-learning engages faculty, students and community partners in a structured programme to meet academic

learning objectives while addressing a community need. However, the application of linking dental hygiene education with service learning is a new concept in Australia.

In 2009, the Faculty of Health and Medicine at the University of Newcastle, Australia, implemented an ongoing service-learning Residential Aged Care Facility (RACF) placement programme for final year dental hygiene students at 17 RACFs across the NSW, Central Coast. The students attend placements one session a week during the first semester of their final year of study. The programme combines experiential learning models (7, 8) and reflective practice concepts (9–11), in conjunction with Yoder's (12) ten component framework of service learning in dental education. The placement provides students with a 'real-life' learning opportunity where they engage in activities that respond to community need while enhancing their learning. The placement programme has undergone a number of reviews over a four-year period, including evaluation of the initial pilot programme (13), evaluation of students' ability and willingness to work with older people in RACFs (14), students' knowledge of the RACF environment and its challenges of providing oral hygiene care to older people with reduced cognitive, physical and visual function (15), students views on a service-learning residential aged care placement programme (16) and an assessment of the educational value of service-learning community placements in residential aged care facilities (17).

Improvements and numerous adjustments to the pre-placement orientation workshop were implemented following the yearly evaluation process; changes made to the orientation included the use of specialist guest presenters and the viewing of instructional DVDs depicting oral hygiene techniques to be used for older people. Despite the changes made to the pre-placement orientation, students still expressed difficulty in transitioning from the protected classroom environment to the confronting world of 'aged care'. Students suggested that a visual representation showing how to approach, communicate with and provide oral hygiene care to older people in RACFs would have assisted them in the initial weeks of their placement experience (15, 17). To address these concerns, an original teaching tool for use in the pre-placement orientation, in the form of an orientation re-enactment DVD depicting dental hygiene students providing care for older people in RACFs, was developed, implemented and evaluated for a cohort of final year dental hygiene students to determine its effect on their transition from classroom to RACF the placement.

Methodology

All final year students were asked to participate in a qualitative study to measure the effect of a re-enactment DVD depicting the 'real-life' student experience during a RACF placement. The DVD was developed to be shown at the pre-placement orientation workshop. The conceptual framework, content and narrative of the DVD were developed by using information from the evaluation studies of this programme undertaken over a period of four consecutive years (13–17).

Students who had previously completed the RACF placement identified four particular areas of concern as follows:

- 1 Communicating with older people during their time at the RACF was difficult, especially with those who had dementia or Alzheimer's disease.
- 2 They were also concerned at not feeling confident in approaching the elderly and not knowing how to talk or build rapport with them and were concerned about how to provide oral hygiene care.
- 3 In the early stages of the placement, they expressed discomfort at the experience of attending the RACFs and described the environment itself as emotionally and visually challenging.
- 4 They took several weeks to settle into the placement and feel comfortable in the RACF setting.

This information was used to formulate a series of four scenarios contained within the structure of the DVD. The scenarios depicted students communicating with older people including those with Alzheimer's disease and dementia, students providing oral hygiene care to residents with physical, cognitive and visual impairment, students providing education sessions for RACF staff and students generally working within the RACF environment.

The DVD narrative took the form of a story depicting 'a day in the life of dental hygiene students on placement in a RACF'. To capture the reality of the placement, recent graduates were employed to play the dental hygiene students, while consenting RACF residents and staff played themselves. There was no script as such, the actors were asked to draw upon their own past experiences from their undergraduate RACF placement to assist with the content. To support their memories, they were asked to read through their own student reflective journals which they had completed on a daily basis during their placement. The participating RACF staff were made aware of the scenarios, and residents responded spontaneously to the filming.

A professional film production company was engaged to produce the DVD. Prior to the final edit, RACF staff, residents and the 'actors' gave their feedback. Further editing took place, with the final DVD lasting 30 min. It was shown for the first time to the active group prior to the commencement of the 2013 placement.

All 47 final year dental hygiene students from the University of Newcastle, Bachelor of Oral Health programme, were asked to participate in the research project. The students were randomly allocated using a standard research randomizer which generated numbers to assign students to one of the 17 RACFs located in the Central Coast region of NSW, all of which provided the same placement opportunities. All students were then randomly allocated, again using the standard research randomizer to a two-group study with the active group assigned to view the DVD prior to their placement. Both the active and control arms participated in a pre-placement orientation workshop. The workshop was the same for both groups with the exception that students in the active group also viewed the specifically designed re-enactment orientation DVD (Figure 1

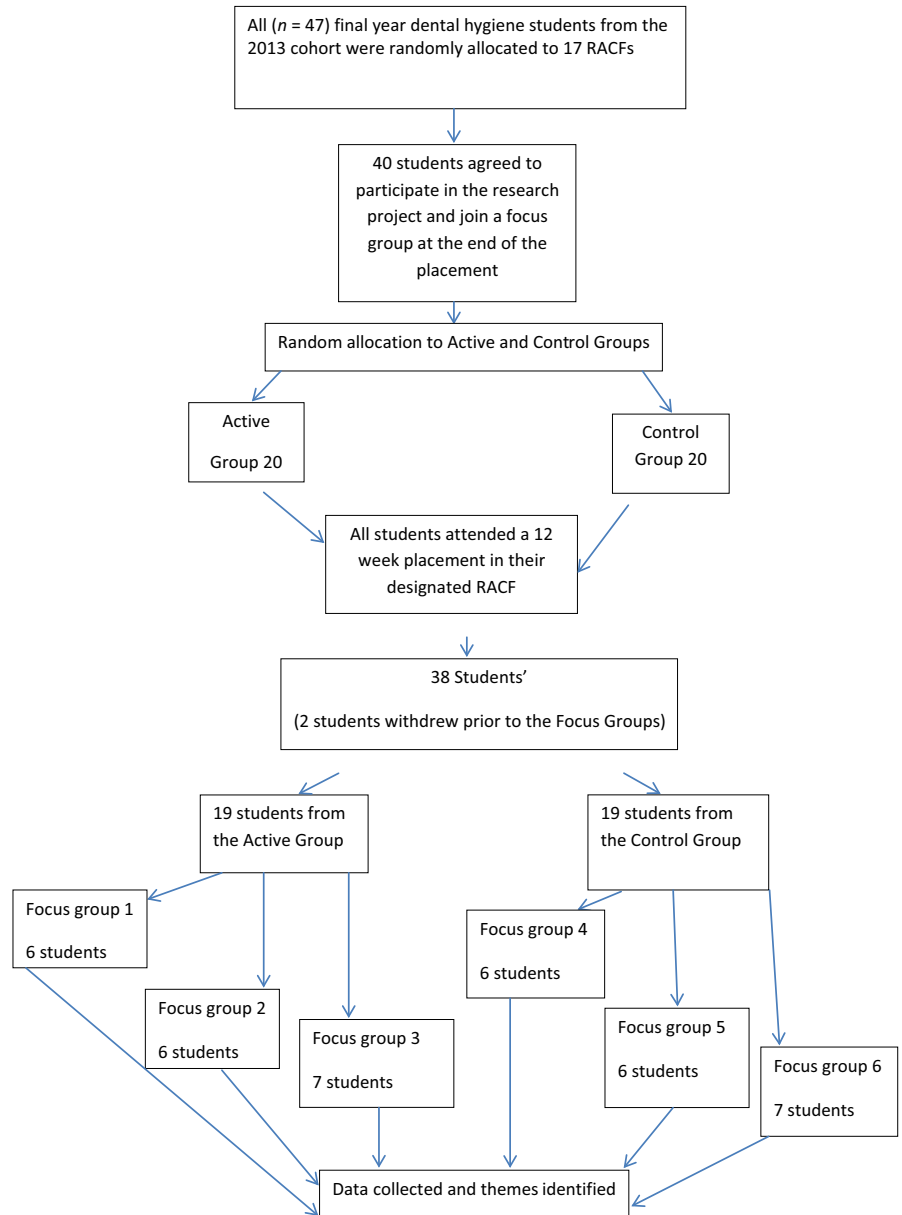


Fig. 1. Flowchart of the research process.

shows the research pathway). Two independent facilitators with experience in focus group management and oral health were employed to conduct post-placement focus groups to record students' views on their transition from the classroom to the RACF placement. A focus group question guide was used based on the four themes identified by students who had attended previous RACF placements (17).

The focus groups were directed separately for the active and control groups and lasted one and a half hours. Both groups were asked to reflect and discuss their experience of transitioning from the classroom to the RACF environment. The active group was also asked to comment on the effectiveness of the DVD. All students were given the opportunity to individually comment on the focus group themes and encouraged by the facilitators to participate in open discussion with their peers. Many students were happy to participate in the discussions and those that were more reserved were encouraged by the

facilitators to comment by being directly asked for their opinions. Recordings were made of the focus group discussions and were transcribed verbatim by two researchers with no teaching responsibilities for this cohort of students. The data were analysed and unitized to identify emergent claims and themes using the conversation analysis method (18). In keeping with this method of analysis, corroborating data from the students' placement diaries was used to support the focus groups findings.

Ethics was approved by the University of Newcastle, Human Research Ethics Committee, Approval No. H-2012-0297.

Results

All final year dental hygiene students ($n = 47$) attended a placement at 17 RACFs on the Central Coast, NSW, Australia. Seven students declined to participate in the study, forty students agreed to participate, and two students who had originally

consented failed to attend the focus groups. Ultimately, thirty-eight students participated in one of six focus group discussions, three were held for the active group students, and three for the control group. The distribution between the active and control groups was equal, with 19 students per group.

The focus group discussions were transcribed and presented under four separate theme headings derived from the conceptual framework:

- 1 The challenging RACF environment
- 2 The inadequate pre-placement orientation workshop
- 3 The initial settling in period
- 4 The influence of the specifically designed DVD

Individual student comments have been presented as either C=control group or A=active group with students numerically identified by a number from 1 to 19.

The challenging RACF environment

Students from both the active and control groups discussed the challenging environment of aged care. There was a general agreement between both groups that the RACF environment was a very different setting to the clinical environment that they were used to, and they were unsure of the RACF protocols. Many of the students reported being surprised by the frailty and ill health of the older residents and were concerned about their poor oral health status. Several students from the control group commented on residents with dementia and the difficulties they had experienced in managing these older people with cognitive impairment.

For example a student was overwhelmed about dealing with dementia cases:

C3 I didn't know what to do, how to deal with someone with Dementia, how do you manage?

While another student in the control group was very concerned about the poor oral health of residents:

C12 I was really overwhelmed by the poor oral condition of the residents, really shocked. I wasn't at all prepared for what I saw, it was really upsetting.

Another issue that added to the challenges of the placement was how little the residents could do for themselves, one student in the control group was very disturbed by the helplessness of some residents:

C17 I never realised how dependent on others the residents are, no wonder the RACF staff have difficulty keeping mouths clean when there is so much else to do!

A student from the control group was quite anxious:

C4 I was really out of my comfort zone, everything was unfamiliar, I had a real fear of the unknown and it wasn't a good feeling.

Another student from the active group had issues with residents with dementia:

A15 I found being in the Dementia Facility really confronting, I hadn't ever been in a situation like that before.

The inadequate pre-placement orientation workshop

There was a marked difference between the control group and the active group when discussing the pre-placement orientation workshop. Several of students in the control group reported feeling unprepared and unsure of their role in the early stages of the placement and felt that the pre-placement orientation did not clearly explain what was expected of them. Nor did it prepare them for the barriers they experienced in providing oral hygiene care to residents or the disinterest of some residents and RACF staff in participating in the oral hygiene programme.

One of the students from the control group commented that she was unprepared for the placement objectives:

C6 The pre-placement workshop didn't give me an understanding of the placement objectives and how they tied into the practical work at the RACF. I didn't really know what to do or where to start.

Another student from the control group reported he was unprepared to manage the behaviour of residents with dementia:

C18 The orientation didn't prepared me for the placement, I didn't have an understanding of the RACF demographic, and I wasn't sure what to do and what was expected in terms of dealing with residents.

Interestingly, many of the students from the active group who watched the DVD during the pre-placement workshop did not think the orientation was lacking in content.

The initial settling in period

The active group reported that the pre-placement orientation workshop which included the DVD provided them with a realistic view of the RACF environment and their role in the placement. As a result, many students reported feeling settling into the placement within a shorter timeframe than those students who had not seen the DVD. Many students from the active group settled into the placement within the first 2–3 weeks compared with the control group students who did not feel comfortable for at least 6 weeks into the placement.

A student from the active group reported feeling confident with the placement within a short timeframe:

A9 I settled in quite quickly, really by week two I felt ok, the DVD helped, it gave me an idea of what to expect.

Those students from the control group who did not view the orientation DVD reported taking much longer to feel

comfortable. A student from the control group reported taking a long time to settle into the placement:

C2 I was anxious for about 6 weeks, it really took be a long time before I felt comfortable at the placement.

The DVD

Those students who watched the DVD reported that the information in the scenarios put all the other information that had been included in the orientation workshop into context. It consolidated all the material and made sense of it. They reported that it provided them with a clear picture of how to communicate and provide oral hygiene care to residents with cognitive, physical and visual impairment. All the students who had watched the 're-enactment DVD' reported that it gave a clear demonstration of how to approach and communicate with residents, it prepared them to be mindful of their actions and gestures, behaviour and expectations when dealing with residents and RACF staff.

One of the students from the active group was pleased with the orientation programme:

A5 The DVD was really helpful and it prepared me for what to expect at the RACF and how residents would react to me.

Another student from the active group commented on the way the DVD prepared her for the placement:

A7 The DVD showed me how to avoid upsetting the residents and how to provide them with helpful comforting oral hygiene care, the scenarios in the DVD really helped me to understand what my role was, how to communicate with older people, it was really good.

All students who viewed the DVD commented that it had given them direction about what was expected of them during the placement and that the scenarios had demonstrated how to communicate with residents who had cognitive, visual and hearing impairment. They stated that it gave them an insight into how residents and staff may react to them and gave them examples of the possible challenges they might face during the placement programme.

One of the students liked the format of the story line in the DVD:

A14 The DVD was really helpful, I liked watching the hygiene students interacting with the older residents in terms of communicating with them and how to manage certain situations. It really put all the information into context and helped me get an idea of what I would be doing.

Discussion

The use of videos, E-learning and YouTube films for teaching purposes in the field of dentistry is well documented particularly

for demonstrating technical skills and clinical simulation. (19–21). It has also been shown to have beneficial effects for the development of interpersonal and communication skills especially in demanding psychological situations (22). Educational videos can complement the text, support lecture content and provide a concrete way to present information in a format that can be powerful, meaningful and instructional. Information presented in this format provides the student with flexible, available access to material that can support their learning.

The DVD content was based on 4 years of consecutive evaluation, conducted over four separate cohorts of dental hygiene students from the University of Newcastle. Information from the evaluations highlighted students' difficulties in communicating and providing oral hygiene care for residents with cognitive and physical impairments, and their difficulties in communicating with and providing oral hygiene care to older people. This information was translated into re-enactment scenarios contained within the DVD narrative. The use of newly graduated students portraying dental hygiene students in the production of the DVD enabled undergraduate students in the orientation workshop to identify with their peers and put themselves in the same situation. There is support from other researchers to demonstrate that applying concepts they have come to understand not just as theories in a book, but concepts in action is beneficial (23–26).

Focus group discussions indicated that those students in the active group settled into the placement more quickly, grasped the placement concept and their role more clearly than those students from the control group. Watching the re-enactment scenarios had been of great value to them in reducing anxiety and stress. However, the major influence of the DVD was reducing the time that students took to settle into the placement environment, as the scenarios provided information which enabled the students to understand their role in providing care for the older people, especially those with cognitive and physical impairments. In essence, the DVD provided them with a 'real-life' orientation to the placement.

Yoder (12) states in her ten components of the ideal service-learning framework that 'broad preparation' is important to provide students with a sound understanding of the target group, the work required and the facility environment in which students will spend their placement. Results from this study support her view that pre-placement orientation is vitally important, as the students from the active group demonstrated their ability to settle into the placement role more quickly than their control group peers. Earlier work on experiential learning by Heron (27) described the importance of students establishing a relationship with their total learning situation which is familiar, deep and optimistic, he felt that only when this was established could the student embrace all other aspects of thinking and practical experience. This concept is particularly relevant for students attending community placements and supports Yoder's philosophy of 'broad preparation' (12) which was the theoretical driver to spend more time and effort to improve the RACF pre-placement orientation for the dental hygiene students. It seems from the focus group

discussions that Herons' view (27) about gaining familiarity with the learning environment is valid and has been demonstrated in the more positive experiences of those students in this study, who watched the DVD prior to commencing the placement.

Results from this study demonstrate that when given sufficient time to familiarize themselves with the RACF environment, many students learned from the placement and in retrospect enjoyed the challenging experience. However, since a placement only lasts 12 weeks, it is imperative that students feel comfortable as soon as possible to maximize their learning experience.

The re-enactment DVD provided students with a quicker transition from the classroom to the RACF environment; therefore, in future, the pre-placement orientation programme should include showing the re-enactment DVD to all students at the beginning of the orientation workshop. It would provide the students with a realistic depiction of the RACF placement programme, the students' role in the placement and the DVD scenarios should help them communicate and provide oral hygiene care to residents with physical and cognitive deficits. By showing the DVD right at the beginning of the pre-placement orientation workshop, it should help ensure all the other information becomes more relevant and should ultimately lead to a more effective student orientation.

This study has limitations in that it was confined to only 1 year group of students and that students may have felt peer pressure to give similar answers to the facilitators questions. However, in this study, focus groups were preferable to personal interviews to draw upon the students' attitudes, feelings and reactions in a way which would not be possible using other methods such as personal interviews. Focus groups elicit a multiplicity of views and emotional processes within a group context to explore the degree of consensus on a given topic, in this study the DVD (28). However, the strength of this study is the continuous evaluation of the RACF student placement programme over five consecutive years. It is therefore likely that the data accurately represent student experiences and have prompted the development of an appropriate learning tool (the DVD) to improve the orientation programme.

Conclusion

The results of this study indicate that students who watched the orientation re-enactment DVD depicting dental hygiene students providing oral hygiene care for residents in RACFs settled into the placement more quickly than those students who did not view the DVD. Moreover, the DVD group of students were better prepared for the RACF environment, along with its daily routines and importantly were aware of their role in the placement experience. Inclusion of the DVD at the beginning of the pre-placement orientation workshop for all future students is likely to improve student transition from the classroom to the RACF environment and in doing so will provide an appropriate orientation to this service-learning dental hygiene student placement programme. The DVD content is transferable to other universities and countries providing

similar student placement programmes and has been implemented by another Australian regional university.

Clinical relevance

Scientific rationale for study

The University of Newcastle, Australia, provides final year dental hygiene students with an oral health placement in residential aged care facilities.

Principal findings

Student placement in residential aged care can be daunting, orientation needs to be realistic in format to enable students to transition in a timely manner from the classroom to the real-life environment that is aged care.

Practical implications

The results of this study may be beneficial to other universities and disciplines providing student placement in residential aged care facilities. The results indicate the complexity of student transition from the classroom to the aged care environment and highlight the need for appropriate real-life scenario-based orientation programmes.

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