ORIGINAL RESEARCH

Aged care facilities and primary health-care clinics provide appropriate settings for dietetic students to demonstrate individual case management clinical competence

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Abstract

Aim: The aims of this study were to: (i) determine the ways in which non-hospital placement settings are used for individual case management clinical placements in dietetic education and (ii) examine the extent to which students can develop individual case management clinical competencies in non-hospital placement settings.

Methods: A sequential mixed methods approach was used. Quantitative data were obtained from an online questionnaire conducted with placement coordinators from all 15 Australian universities with accredited dietetics programs. Qualitative data were obtained from a focus group with eight experienced clinical supervisors who had viewed 11 audiovisual recordings of student/dietitian encounters with clients in non-hospital settings and assessed them against entry-level competencies. Data were analysed using descriptive statistics and content analysis.

Results: Placement coordinators from 10 of the 15 accredited universities responded, with most universities (8/10) using hospitals for the majority of their individual case management clinical placements. Seven of the ten universities used non-hospital settings but only for a small proportion of students ($\leq 25\%$) and for short durations (one to two weeks). The experienced clinical supervisors agreed that primary health-care clinics and residential aged care facilities provided appropriate practice settings for student dietitians to demonstrate individual case management clinical competencies.

Conclusions: To align with the national health-care agenda and workforce demands, this research supports the expansion of clinical placement settings to also include non-hospital settings. The influence of context on competency development requires adjustments to be made for the nuanced practice differences in these settings.

Key words: case management, clinical competence, nursing homes, primary health care.

Introduction

National health reform and health workforce development is central to meeting the needs of Australia's current population, particularly in terms of the reallocation of the workforce to underserved areas.¹ The ageing population and the increases in chronic disease are driving a move towards a consumer-driven, integrated health-care system with an expanded role for interdisciplinary primary health-care services,² including dietetics.

Clinical placement experiences prepare and influence graduates' future careers.³ A practice hierarchy has been identified in dietetics, with a strong perception that the 'gold standard' for clinical training in individual case management (ICM) is the hospital setting.⁴ The accrediting body in Australia specifies that:

'Ten to twelve weeks full-time (or equivalent, with a minimum of ten weeks) is essential to develop the skills required to meet the competency standards for safe practice in managing nutrition care of individuals. At least four weeks of this period should be undertaken in a clinical setting in a hospital where at least two full-time equivalent dietitians are employed. Placements within private practice and clinics not part of the public health system may also be undertaken provided they meet the supervisory and assessment requirements (p. 12).'⁵

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Despite the 'gold standard' perception, there are limitations to placing students in the hospital setting. With decreasing length of patient stay and increasing patient complexity, the appropriateness of the hospital environment to develop competence in client-centred counselling is questionable.⁶ Clinical placement programs need to prepare graduates for employment in new and emerging areas of practice.⁷ Areas of growth in the dietetics workforce, rather than being in the hospital setting, include residential aged care, private practice and wellness programs.⁸ Clinical placements in the aged care setting have the potential to produce graduates with a greater understanding of ageing and aged care.^{9,10} The addition of aged care and primary health experience could provide the workforce flexibility critical to the national health reform agenda.¹¹

Student dietitians are required to demonstrate the National Competency Standards for Entry-Level Dietitians in Australia¹² in order to graduate. Developed by the Dietitians Association of Australia (DAA), these standards comprised nine units of competency with Unit 4 pertaining directly to the practice area of ICM (Figure 1). Unlike other health disciplines, dietetics does not have a national assessment tool, with assessment processes subsequently within the purview of each university.⁵

Academic dietitians in Australia have called for more scholarship and debate relating to the role of clinical placements in the development of ICM competence in dietetics.¹³ This research aims to address this evidence gap by: (i) identifying the ways in which Australian tertiary dietetics pro-

grams are using non-hospital settings for ICM placements and (ii) examining the extent to which students can develop ICM competencies in non-hospital placement settings.

Methods

A sequential mixed methods approach was used to allow a more comprehensive exploration of the applicability of non-hospital settings for ICM clinical placements. Stage 1 provided a national context and informed the methods (sampling and research instrument) used in stage 2. A reference group was established with health sector, academic, regulatory, student and consumer representation to provide advice on the direction of the study and ensure its relevance to current practice. Feedback was provided on the scope of the project, the methodology and the interpretation of the results of the study. The University of Canberra's Committee for Ethics in Human Research approved the study (CEHR 12-209) that conforms to the provisions of the Declaration of Helsinki. The methods and results will be presented sequentially for each stage of the study and then discussed together.

Method (stage 1): In December 2012, all 15 universities offering accredited dietetics programs were identified from the DAA website. Placement coordinators for the ICM placement programs at these sites were invited, via email, to participate in an online survey about their use of non-hospital settings and assessment practices for ICM placements. Participation was voluntary and confidential. Completion of the online survey implied consent. A

National Competency Standards for Entry Level Dietitians in Australia

Foundation Units of Competency	Unit 1		
	Underlying knowledge Demonstrates knowledge sufficient to ensure safe practice		
	Unit 7 <i>Research & Evaluation</i> Integrates research and evaluation principles into practice	Unit 8 <i>Management and Organisation</i> Applies management principles in the provision of nutrition services, programs and products	Unit 9 <i>Professionalism, advocacy, innovation and leadership</i> Demonstrates a professional, ethical and entrepreneurial approach, advocating for excellence in nutrition and dietetics
Core Units of Competency	Unit 2 <i>Nutrition Communication</i> Demonstrates effective and appropriate skills in listening and communicating information, advice, education and professional opinion to individuals, groups and communities	Unit 3 <i>Collection, analysis and assessment of nutrition/health data</i> Collects, organises and assesses data relating to the health and nutritional status of individuals, groups and populations	
Critical Practice	Unit 4 <i>Individual Case management</i> Manages client centred nutrition care for individuals	Unit 5 <i>Community and Public Health Nutrition and Advocacy for Food Supply</i> Plans, implements and evaluates nutrition programs with communities or populations as part of a team	Unit 6 <i>Food Service Management</i> Manages components of a food service to provide safe and nutritious food

Figure 1 The Dietitians Association of Australia National Competency Standards for entry-level dietitians in Australia (2009).

follow-up telephone call was made to all participants to confirm their role in placement coordination and to clarify their understanding of the research project. The online survey consisted of demographic questions (two items) and a purpose built instrument—the Dietetics Placement Mapping Questionnaire (DPMQ: Figure 2).

Consultation was sought in the development of the DPMQ from three researchers familiar with competency assessment literature and practices and/or dietetic placement accreditation requirements to achieve content validity. Two university staff with experience in dietetics placement coordination pilot-tested the draft survey. This resulted in minor modifications to the survey. To maximise the response rate: (i) the DPMQ was designed to be user-friendly (set up with *Qualtrics Survey Software—version 12018, 2005, Qualtrics*, <http://www.qualtrics.com>) and quick (completed in less than five minutes); (ii) the covering email was personalised and outlined the aim and benefits of the research; and (iii) participants had five days to complete the DPMQ with a reminder email sent after 10 days providing an extended duration for completion. Data from completed surveys were exported from *Qualtrics Survey Software to Excel (version 14.3.5, 2010, Microsoft Corporation, http://www.microsoft.com/)* and ana-

lysed using descriptive statistics. Responses from open-ended questions were sorted into response category themes and counted to identify common themes.

Method (stage 2): Qualitative research is well suited to research questions that address emerging areas of practice and where controversial and inherently complex issues, such as competency assessment, can be elucidated.¹⁴ Stage 2 was conducted as part of a larger study involving a three-round modified Delphi study. The larger study used an online survey interspersed with controlled feedback and a focus group discussion to achieve consensus on 11 assessments of student/dietitian consultations as observed from audiovisual recordings. These consultations were pre-recorded with permission of all parties within a university clinic that provided outpatient clinics and services to aged care facilities. No validated dietetics ICM assessment tool was identified for use by clinical supervisors in stage 1. Unit 4 of the DAA National Competency Standards for Entry-Level Dietitians in Australia (Table 1) was therefore used as the criteria to assess the students' performances.

Data from stage 1, demonstrating the key role played by clinical supervisors in the assessment of student competence during their ICM placements, supported the purposeful

This survey aims to map the use of clinical placement settings by Australian Universities for dietetics students in the individual case management domain. Please answer each question as accurately as possible.

(1) How many students did you have in the final year of your Nutrition and Dietetics program in 2012?

(2) How many weeks of individual case management clinical placement was each student required to complete in 2012?

(3) Who is responsible for assessing student competency during the individual case management clinical placement? (More than one response can be selected.)

- ☐ University staff
- ☐ Designated clinical educator
- ☐ Supervising Accredited Practising Dietitian (APD)
- ☐ Supervising Dietitian (not APD)
- ☐ Other [open text box]

If you would like to provide further clarification please comment here [open text box provided]

(4) In your program which of the following approaches are required to assess whether a student has met the Dietitians Association of Australia's entry level competency standards for individual case management? (More than one response can be selected.)

- ☐ Portfolio
- ☐ Case presentation
- ☐ Direct observation by assessor [required to answer question 4a if selected]
- ☐ Remote observation by assessor
- ☐ Workplace clinical assessment (For example: Mini Clinical Evaluation Exercise)
- ☐ 360° evaluation
- ☐ Student reflection / self assessment
- ☐ Peer assessment
- ☐ Other [open text box provided]

If you would like to provide further clarification please comment here [open text box provided]

(4a) Do you have a tool that you use for assessors to record their direct observations of student performance during their individual case management clinical placement?

- ☐ Yes
  - ☐ No [re-directed to question 5]
- Are you able to attach an electronic copy of this assessment form / tool?
- ☐ Yes - response provided: Please email a copy of the assessment tool to [email address provided]
  - ☐ No - response provided: If not, where did you get your assessment tool from? [open text box provided]

(5) What proportion of your students completed any of their individual case management clinical placement in a non-hospital setting in 2012? (For example, non-acute settings may include a Community Health Center, Medicare Local, Super Clinic, Private Practice, University Clinic, Outpatient Clinic, Residential Aged Care Facility or other Primary Health Care setting).

- ☐ None [required to answer question 5a and then survey completed]
- ☐ 1-24% [required to answer question 5a]
- ☐ 25-49% [required to answer question 5a]
- ☐ 50-74%
- ☐ 75-100

Figure 2 Dietetics placement mapping questionnaire (DPMQ).

(5a) Why did the majority of your students complete their individual case management clinical placement in a hospital setting? (*More than one response can be selected.*)

- ☐ I have sufficient placements in acute settings
- ☐ I think this is the preference of the Dietitians Association of Australia
- ☐ Students prefer to go to hospital placements
- ☐ Non-hospital placements do not offer an equivalent experience for students to develop and demonstrate competency
- ☐ I have not explored non-acute settings for this placement yet
- ☐ Other [open text box provided]

(6) Has Health Workforce Australia funding led to an increase in the proportion of your students completing all or part of this individual case management placement in a setting other than a hospital?

- ☐ Yes
- ☐ No

If you would like to provide further clarification please comment here [open text box provided]

(7) Which placement settings did you use for your individual case management clinical placements in 2012? (*More than one response can be selected.*)

- ☐ Community Health Center
- ☐ Private Practice (include Medicare Local, Super Clinic or a General Practice Clinic)
- ☐ University Clinic
- ☐ Outpatient Clinic on a Hospital Campus
- ☐ Residential Aged Care Facility
- ☐ Other [open text box provided]

(7a) Please answer the question below for the placements completed in the [completed for each setting selected in questions 7]? (*If appropriate only one line can be completed.*)

In the example below 'Community Health Centre' was selected in question 7.

	How many students attended the Community Health Center in 2012?	How many weeks did each student spend in the Community Health Center ?	During the placement in the Community Health Center what services were provided?					
	Answer 1	Answer 1	Outpatient clinics	Services to an aged care facility	Services to a district hospital	Group education	Home visits	Other services
Rural / remote location	____	____	☐	☐	☐	☐	☐	☐
Urban location	____	____	☐	☐	☐	☐	☐	☐

We thank you for your time spent taking this survey. Your response has been recorded.

Figure 2 *Continued*

sampling used in stage 2. The 15 ICM placement coordinators in stage 1 were invited to nominate experienced clinical supervisors with currency in clinical dietetics and student supervision. Eight clinical supervisors were contacted, via email, and agreed to participate in the modified Delphi study. The clinical supervisors provided written consent for their participation and were paid an honorarium. The contributions of the clinical supervisors are reported collectively.

In round 2 of the modified Delphi study, the eight clinical supervisors were asked to identify any performance criteria from the Unit 4 Competency Standards that they felt could NOT be demonstrated in an outpatient setting or residential aged care facility. These responses formed the structured protocol used to direct the focus group discussion.

The focus group, held with the same eight clinical supervisors, began with a scripted introduction outlining the research and ethical considerations. The moderator, a dietitian with experience in clinical education as well as in focus group facilitation, led the discussion together with a research assistant who acted as a scribe. The focus group was audio-

taped and transcribed verbatim to maintain the integrity of the participants' responses. The transcript was analysed for content that related specifically to the development of ICM competence in non-hospital settings. Direct quotes are presented as data to support the identified themes.¹⁴ In addition, both the facilitator and the scribe independently prepared summary reports from the discussion, with consensus in the contents of the two reports achieved. These reports were provided to the participants a week after the focus group.

Results

Results (stage 1): A response rate of 67% (10/15) was achieved for stage 1 with university representation covering all Australian states offering accredited dietetics programs. In total, 361 students were enrolled in the final year of these programs (mean = 36 ± 21.5). Accredited Practising Dietitians (APDs) employed by the health services played a key role in assessing student dietitians during ICM placements. A

Table 1 Dietitians Association of Australia Unit 4 elements of competence and their related performance criteria

<i>Elements</i>	<i>Performance criteria</i>
4.1 Undertakes screening and assessment to identify and prioritise those at nutritional risk	4.1.1 Demonstrates awareness of the range of validated nutrition screening and assessment tools available, including strengths and limitations 4.1.2 Identifies and uses appropriate validated tools in nutrition screening and assessment 4.1.3 Includes appropriate follow-up timeline
4.2 Determines nutritional status using assessment data	4.2.1 Interprets available documentation to identify problems 4.2.2 Assesses anthropometric and other body composition data 4.2.3 Assesses clinical, biochemical and other biomedical parameters 4.2.4 Assesses dietary intake, food habits, mental health and wellbeing issues, physical activity and lifestyle habits
4.3 Makes appropriate nutrition diagnoses	4.3.1 Organises, interprets and prioritises data to undertake nutritional diagnoses 4.3.2 Refers to all available evidence to inform clinical judgement 4.3.3 Formulates and prioritises nutrition diagnoses
4.4 Prepares plan for achieving management goals in collaboration with client or carer and other members of health-care team	4.4.1 Determines realistic goals for nutritional management in collaboration with client and other members of healthcare team 4.4.2 Identifies nutrition outcome measures and performance indicators 4.4.3 Develops dietary prescriptions and formulates meal plans and feeding regimens consistent with nutrition goals 4.4.4 Communicates food service and supply needs of individual clients to appropriate persons 4.4.5 Considers discharge planning and/or referral to other services
4.5 Uses client-centred counselling skills to facilitate nutrition and lifestyle change and supports clients to self manage	4.5.1 Considers an environment conducive to effective counselling 4.5.2 Assists client to clarify issues, identify the barriers to resolution of the problem and identify appropriate goals and strategies 4.5.3 Negotiates client-oriented goals and strategies 4.5.4 Provides information and/or referral if necessary, and responds to client concerns 4.5.5 Evaluates process and outcomes of counselling with client and/or others including family members and carers
4.6 Implements nutrition care plan in collaboration with client or carer and other members of health-care team	4.6.1 Selects the most suitable strategy in terms of feasibility and client outcome 4.6.2 Implements nutrition plan and a system for monitoring and review with client and other health-care team members 4.6.3 Promotes physical activity guidelines in care plan with client and other health-care team members 4.6.4 Participates in multi-disciplinary team activities (such as case conferencing) to achieve nutrition goals
4.7 Monitors progress of the individual's condition and care and adapts plan as necessary	4.7.1 Implements the evaluation strategies identified in the nutritional care plan 4.7.2 Gathers data throughout the care process so that an individual's progress can be monitored against performance indicators 4.7.3 Determines a timeline for follow-up of clients as necessary
4.8 Documents and communicates all steps of the process	4.8.1 Maintains clear and concise records, in accordance with the organisation's policy and legal requirements, of all facets of the nutrition care process 4.8.2 Formulates unambiguous instructions for other personnel involved in the delivery of nutrition care 4.8.4 Communicates the nutrition care plan to other members of the health-care team as appropriate, including referring practitioners 4.8.4 Maintains statistics and other reports required of the organisation

designated clinical educator was reported by all but one of the universities. Clarifying comments suggested that in most cases, university faculty only became involved in the process of student assessment, when students had been identified as not meeting competency within the intended placement period (n = 3).

Most placement coordinators reported that multiple sources of evidence were used to explain their assessments of student competence. This included student reflections

(8/10), portfolios (6/10), case presentations (written and oral) (6/10), workplace clinical assessments 3/10, peer assessments 2/10 and direct observations by clinical supervisors 10/10. Most (9/10) universities provided supervisors with assessment tools. Four different universities provided seven assessment tools. The assessment tools included individual nutrition counselling forms (n = 2), a casemix form (n = 1), a chart entry checklist (n = 1), a professional development assessment form (n = 1) and a clinical placement

assessment (summative) form ($n = 3$). In most instances, these forms were structured around the nutrition care process and used learning objectives rather than the competency standards. All forms included a tick box to rate performance and space for qualitative feedback. A four-point rated scale was used to consider the difficulty/cooperation of the client on both the nutrition counselling forms. One university did not supply their forms but indicated that they used multiple assessment tools including direct observations based upon Calgary Cambridge Guide to the Medical Interview, end of week feedback forms, and forms derived directly from the competency standards.

Most universities ($n = 8$) reported using hospital settings for the majority ($\geq 75\%$) of their ICM placements. The most frequently reported non-hospital setting was an outpatient clinic on a hospital campus. In most instances, these settings were in an urban location, and used for short (one to two week) durations (Table 2). One university used a student-led clinic that provided outpatient services and services to aged care facilities, both in a rural and in an urban setting. One university indicated plans to modify their placement model: 'We are looking at modifying this to include GP Super-clinics and future university-based clinics.' Most universities ($n = 7$) reported using non-hospital settings for a small proportion of each student cohort.

Reasons provided for using the traditional hospital model for ICM placements included sufficient placements in hospital settings ($n = 7$), preference of the DAA ($n = 4$), student preference for hospital placements ($n = 3$), and not having explored non-hospital placement options ($n = 1$). Three placement coordinators commented that non-hospital settings did not offer students an equivalent experience to develop and demonstrate competency when compared to a hospital setting. Two placement coordinators reported that Health Workforce Australia (HWA) funding had led to an increase in the use of non-hospital settings for their universities.

Results (stage 2): In stage 2, one male and seven female clinical supervisors participated in the focus group. Most

(five out of eight) had more than 10 years experience as a dietitian and more than six years experience in supervising students. Four had experience in an outpatient setting but only two had worked in a residential aged care facility.

In round 2 of the modified Delphi Study, all eight participants had agreed that all elements of ICM competency and their related performance criteria could be demonstrated in a residential aged care facility and that elements 4.2 (Determines nutritional status using assessment data), 4.3 (Makes appropriate nutrition diagnoses) and 4.6 (Implements nutrition care plan in collaboration with client or carer and other members of health-care team) could be demonstrated in an outpatient setting. The students' documentation from each consultation was not included in the study and therefore the element of competency 4.8 (Documenting and communicating all stages of the process) could not be directly assessed. The clinical supervisors, however, agreed that this competency would be assessable in real-life outpatient and aged care settings. A summary of the clinical supervisors' views from the focus group with regard to the opportunities to demonstrate the elements of competence 4.1, 4.4, 4.6 and 4.7 in an outpatient setting are outlined in Table 3.

Subtle differences in competency development in non-hospital settings, compared to hospital settings, emerged during the focus group discussion. The nuances emerged in relation to the emphasis on malnutrition assessment and the need for holistic assessment in aged care, and the focus on counselling skills and the requirement to complete the whole consultation in one sitting in outpatient settings.

Malnutrition screening and assessment was seen as an opportunity for student learning in the aged care setting. A number of participants also emphasised the need to look at the needs of aged care clients in a holistic way including client preferences and quality of life. Referring to the pre-recorded consultation between a student and an aged care client, participants commented:

'We have been through this phase in dietetics where evidence based medicine has really been what's on paper,

Table 2 Use of non-hospital placement settings for the ICM of clinical placements

Clinical placement setting	Universities using the setting (n)	Location	Placement weeks $x \pm SD$	Students $x \pm SD$	Services provided at the clinical placements chosen by (n) universities				
					Outpt	Aged care	District hospital	Group Ed.	Home visits
Community health centre	3	Urban	$x = 2 \pm 1$	$x = 5.7 \pm 3.5$	3	0	1	2	3
	0	Rural	0	0	0	0	0	0	0
Medicare local	2	Urban	$x = 5 \pm 0$	$x = 1 \pm 0$	2	1	1	0	0
	1	Rural	—	$x = 1 \pm 0$	1	0	1	1	0
University clinic	1	Urban	$x = 5 \pm 0$	$x = 7 \pm 2.8$	1	1	0	1	0
	1	Rural	$x = 5 \pm 0$	$x = 8 \pm 0$	1	1	0	1	0
Outpt clinic-hospital setting	5	Urban	$x = 1.5 \pm 0.5$	$x = 17 \pm 23.3$	4	1	1	2	1
	2	Rural	$x = 2.5 \pm 0$	$x = 7 \pm 1$	2	0	2	0	0
Residential aged care facility	1	Urban	$x = 2 \pm 0$	$x = 2 \pm 0$	0	1	0	0	0
	0	Rural	0	0	0	0	0	0	0

Table 3 Elements of competence with dissent

<i>Element</i>	<i>Clinical supervisor comments</i>
4.1 Undertakes screening and assessment to identify and prioritise those at nutritional risk	In practice, it is not the dietitian (rather nursing staff or nutritional assistants) who undertakes nutrition screening. An awareness and capacity to evaluate malnutrition screening and assessment tools (4.1.1) can be assessed at university. Malnutrition assessment tools are used in an outpatient setting but their relevance will depend on the casemix. In an outpatient setting, competent performance is demonstrated by a student's capacity to determine the appropriateness of a malnutrition assessment tool using professionally recognised screening principles as a part of their overall nutrition assessment.
4.4 Prepares plan for achieving management goals in collaboration with client and carers and other members of the health-care team	If interpreted prescriptively, a student may not be able to demonstrate the performance criterion 4.4.4 (Communicates food service and supply needs of individual clients to appropriate persons). It was recommended that students should complete one placement block where they are required to work together with food service. In an outpatient setting, students are required to work with an open food supply.
4.6 Implements nutrition plan in collaboration with client or carer and other members of the health-care team	Outpatient settings do not provide the traditional model of multidisciplinary care; however, students can certainly develop competence in working as part of a healthcare team. Primary health-care settings may offer advantages in regard to inter-professional practice; however, sites need to be evaluated individually.
4.7 Monitors progress of the individual's condition and care and adopts plan as necessary	Students need to conduct both initial and review consultations in an outpatient setting. It may be harder for students to access some nutrition care indicators, such as biochemistry, in non-hospital settings when compared to a hospital setting. Discharge planning appeared to be a competency that developed later in the placement. The second clinical placement should be selected to support the student's demonstration of this competency.

what's the review paper telling us—what's all the evidence and forgetting that one of the other components of evidenced based medicine is patient preferences and what they want and I think this girl demonstrated a nice balanced response with evidence based medicine there.' (Participant 2)

In the AV recordings in an outpatient setting, the students/dietitians demonstrated behavioural change techniques:

'She did a few things really nicely, listening, active listening and the clarity in her goal setting was really evident.' (Participant 7)

'The other thing that was really good was how she was able to change track so when the whole thing about the moods came up she went and got the mood diary . . . that was listening to the patient and responding.' (Participant 4)

The focus group highlighted that one of the challenges in working in an outpatient setting as opposed to the hospital or aged care setting is the need to conduct the whole consultation in one sitting. This prevents students from taking time to research a case or consult privately with their supervisors. In an outpatient setting, the reason for the referral may not be evident until the consultation, making it harder for the student to prepare. Students also have to transition directly from their data collection, through assessment to their treatment plan. The panel recommended scaffolding approaches such as prompts, questioning or 'think-alouds' to support the student's learning in this setting.

Discussion

This study provides valuable insight into the practices currently used by Australian dietetics programs for ICM placements. It provides evidence that most universities are relying upon the hospital sector to provide the majority of the 10-week ICM placements in dietetic education programs. Despite HWA funding opportunities in exploring non-hospital sites, most universities reported using non-hospital settings for a small number of students and for short durations even though DAA only mandates four weeks in the hospital setting. The participants felt that students, academic staff and the professional association perceived disadvantage for students being placed in non-hospital settings. No rationale was offered by participants for this perspective.

The key finding from the focus group was the agreement by the experienced clinical supervisors that students can develop and demonstrate entry-level competence in ICM in non-hospital placement settings including residential aged care facilities and outpatient clinics. This result challenges the perception that the hospital setting is the 'gold standard' for clinical training. This is consistent with the findings from other disciplines. For example, within medicine, non-hospital placement experiences have resulted in comparable student performances.¹⁵ A systematic literature review of medical students completing placements in community settings¹⁶ reported that the students exhibited a more holistic approach to health care, increased clinical proficiency scores, better mastery of rapport building and a more effective patient encounter routine.

Evidence for successful behaviour change no longer supports the traditional model where the dietitian is the expert who provides advice and instruction.¹⁷ Cant and Aroni¹⁸ highlighted the limited time allocated to the adequate development of communication and counselling skills in some dietetics programs. Through viewing and assessing the AV recordings of student/dietitian outpatient consultations, focus group participants perceived that this setting allowed the demonstration of competencies in client-centred counselling.

This study found that competency development was influenced by the context of the setting, with behaviour change skills likely to be developed in outpatient settings and malnutrition assessment likely to be demonstrated in residential aged care. As Ash and Phillips stated, different settings value different competencies to different degrees.¹⁹ In the aged care setting, the need to use an individualised approach to less restrictive diets²⁰ influenced the clinical supervisors' interpretation of the competency standards. These findings highlight the need to revisit clinical education curricula and consider other settings in addition to hospital sites in the ICM placement mix.

Combining hospital, outpatient and aged care settings in the one-placement mix provides students with a more varied experience. Deficiencies in transitional care during hospital discharge are evident particularly in the management of chronic disease.²¹ Theoretical knowledge of an integrated health-care system becomes more meaningful through experiential learning across the continuum of care. Competent work performance will demand the flexibility to move between practice settings.²² Additional practice settings provide students with the opportunity to reflect, create new knowledge (lifelong learning) and develop or transfer their practice.¹⁹

There are limitations to this study. One-third of the Universities did not respond to the online survey despite design measures to maximise participation; however, at least one program from each of the Australian states participated. Dietetics is a relatively small health-care profession and the results provide a reasonable overview of current practices given the number of accredited dietetics programs nationally. The results from this study are exploratory and should be interpreted as offering expert opinion rather than indisputable fact.

Future research is required to: (i) explore new models of clinical education that equip graduates for the future demands of a consumer-led integrated health-care system; (ii) to gain a shared understanding of entry-level performance in non-hospital placements settings; (iii) to explore the implications of the use of different placement settings on graduate employment outcomes; and (iv) to determine the best ways to support new graduates in emerging areas of practice.

In order to produce competitive graduates, dietetics education needs to offer clinical placement programs that consider the demands for a flexible consumer-driven inter-professional workforce. This research has added to the body of knowledge supporting the expansion of ICM clinical

placement settings to include non-hospital settings. This will require adjustments to consider the nuanced practice differences in these settings.

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Conflicts of interest

Professor Lauren Williams is a member of the Australian Dietetics Council (ADC), the accrediting body of the Dietitians Association of Australia (DAA); however, the views stated in the article in no way represent the views of the ADC or DAA.

Authorship

RB was the main author and contributed to the conception and design; acquisition of funds; data collection, management, statistical analysis and interpretation; drafting and revision of the manuscript. LW and LG both provided research supervision assisting in the research design, funds acquisition and revision of manuscript.

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