Tampere University of Applied Sciences

Evaluation of Mentoring in an Australian Medical Faculty

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Master of Business Administration
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ABSTRACT

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Evaluation of Mentoring in an Australian medical faculty

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Mentoring programs have been reported to improve cultural socialisation, emotional support and networking, as well as better performance at work (Lumpkin, 2011). This idea builds on social capital theory, which underpins the way social relationships influence access to social resources (Seibert et al., 2017). Mentoring programs have been reported to improve professional success of mentees (Vassallo et al., 2021), and to foster deep relationships with peers, promoting career development and vitality (Pololi & Evans, 2015).

This study explores the experiences and attitudes towards mentoring in the Faculty of Medicine, Health and Human Sciences at Macquarie University, Australia through a survey and focus groups. Of the 1058 academic staff, professional staff, and graduate researchers that were surveyed, 289 (27%) responded, and a subsequent 28 (2.6%) participated in focus group interviews across all job categories.

Respondents generally showed a positive attitude towards mentoring, however more junior faculty, graduate researchers, and professional staff expressed far less experience with mentoring than more senior academics. Gender disparity was evident, where men held more senior academic positions, and respondents came from a wide range of cultures. A clear need for training in mentoring practice was evident, as well as a need for guidance in career development. More than half of respondents in each job category, except for professors (level E), were interested in participating in a faculty mentoring program.

Overall, respondents provided a range of suggestions for the implementation of a mentoring program, including scheduled workshops, matching suggestions, and practical suggestions regarding delivery of the program. These are presented here in the context of previous initiatives that have been reported.

Key words: mentoring, faculty, professional development

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ABBREVIATIONS

AIHI	Australian Institute of Health Innovation
APA	Australian Physiotherapy Association
CHIR	Department of Chiropractic
DOHS	Department of Health Sciences
ECR	Early Career Researcher
FMHHS	Faculty of Medicine, Health and Human Sciences
HEW	Higher Education Worker
IMNIS	Industry Mentoring in STEM
MMS	Macquarie Medical School
MQ	Macquarie University
MRes	Master of Research
MPH	Master of Public Health
MUH	Macquarie University Hospital
OECD	Organisation for Economic Co-operation and Development
LING	Department of Linguistics
PhD	Doctor of Philosophy
PD, PDF, Postdoc	Postdoctoral Fellow
Pro, Prof	Professional Staff
SOPS	School of Psychological Sciences
STEM	Science, Technology, Engineering, and Mathematics
STEMM	Science, Technology, Engineering, Mathematics and Medicine

1 LITERATURE REVIEW

The concept of mentoring is often cited as arising from Homer's *Odyssey,* an Ancient Greek poem describing the practice of mentoring through 'Mentor' and the Goddess Athene; this formed the basis of mentoring being regarded as imparting wisdom and sharing knowledge with someone less experienced (Colley, 2002, p.259-261). The early literature on mentoring as a practice, however, emerged in the late 1970s (Colley, 2002, p.260) together with the expansion of mentoring in the private sector (Fountain & Newcomer, 2016, p.484). Mentoring programs have since been reported to improve cultural socialisation, emotional support, and networking, as well as better performance at work (Lumpkin, 2011). This idea builds on social capital theory, which underpins the way social relationships influence access to social resources (Seibert et al., 2017, p.384), and many have noted alignment with social cognitive career theory (Lent et al., 2000, p.45), where contextual supports like mentoring promote learning experiences and positively influence self-efficacy (Curtin et al., 2016, p.729; Deng et al., 2022, p.2). Mentoring programs have been shown to improve the professional success of mentees (Vassallo et al., 2021, p.5-6), and foster deep relationships with peers, promoting career development and vitality (Pololi & Evans, 2015, p.198).

Mentoring initiatives have grown substantially through many areas in society. Organisations are reported to benefit from mentoring through "organisational socialisation, increased organisational commitment, increased job satisfaction, and reduced turnover intentions" (Harvey et al., 2009, p.1349). Mentoring has become a critical practice in education, where junior educators learn from their peers and more experienced teachers to develop their skills in the classroom (Sundli, 2007, p.201). Formalised mentoring initiatives to support women and minorities have also become popular in recent years. These social groups are well reported to face gender- and culture-based career obstacles, which have been addressed with some success through mentoring initiatives (Fried et al., 1996; Vassallo et al., 2021).

1.1 The practice of mentoring

Mentoring initiatives traditionally operate through a dyadic relationship (Stockkamp & Godshalk, 2022, p.165). A mentor, or more experienced individual is typically paired with a junior, or less experienced person, or 'protégé', to aid career development (Eby & Robertson, 2020, p.76). Mentors also reportedly benefit from the dyadic, or classical one-to-one mentoring arrangement, through their development of mentoring skills (Stockkamp & Godshalk, 2022, p.179). Mentoring pairs often experience reciprocal mentoring, drawing on social exchange theory, where both participants in a dyadic mentoring pairing benefit from their exchange with each other (Stockkamp & Godshalk, 2022, p.179). Although mentoring initiatives traditionally operate through a dyadic relationship, more group mentoring initiatives are often seen in the teaching/learning space, where one mentor may support groups of students (Stockkamp & Godshalk, 2022, p.171). Group mentoring may also include "peer group mentoring (PGM), one-to-many mentoring (OTMM), many-to-one mentoring (MTOM), and many-to-many mentoring (MTMM)" (Huizing, 2012, p.28-34). Formal peer mentoring has been practiced at Macquarie University for postgraduate researchers through the graduate research office in recent years (Graduate research office, 2024).

As formalisation of mentoring has become more commonplace in organisations, researchers have recognised that informal mentoring experiences offer greater potential for connection, as formal matching may not make pairings that find commonalities (Holt et al., 2016, p.69-71). In the academic research environment, supervision is often considered the primary formal mentoring arrangement, where an advanced researcher guides a more junior one to develop competencies and skills to complete research work for publication or thesis (Fountain & Newcomer, 2016, p.483-484). In this case, another mentoring initiative focused on broader career experiences and goals may present an opportunity to form closer professional relationships where there is no specific work goal or performance expectation.

Mentoring in the workplace has commonly been perceived to benefit mentors, mentees, and the organisations with which they are affiliated (Eby & Robertson, 2020). Nonetheless, the capabilities developed and support provided in a men-

toring relationship differs from that of that provided by leaders or research supervisors, who are involved in performance management (Eby & Robertson, 2020). In business environments, mentors are generally advanced in their careers, and provide support in sponsoring mentees in their promotions, coaching/guidance regarding institutional practices, protecting from adverse problems, and increasing their exposure and visibility (Harvey et al., 2009, p.1347).

No clear best model has been reported for mentorship, and identifying the needs of the community to best individualise programs for mentoring is recommended (Farkas et al., 2019, p.1322). Given no single approach to mentoring has been defined as the “right way” to date, a tailored approach should be taken, considering individual needs, knowledge, and experience (Srivichai et al., 2012, p.154). Formalized approaches that follow an in-person face-to-face dyadic approach are often considered the “gold standard” (Ahmed et al., 2021, p.498). However, more online approaches to formalised mentoring have naturally evolved with the normalcy of video calling, which accommodate fields of speciality that span the globe (Ahmed et al., 2021). Successful individuals often have multiple mentors, that form a professional support network, also including peers (Dahlberg et al., 2019). Participation, trust, and relationships are noted as critical factors for successful implementation of a mentoring program (Srivichai et al., 2012, p.154).

1.2 Mentoring in the university faculty

Several recent studies have explored the potential of mentoring in the university (Curtin et al., 2016; Feldman et al., 2010; Fountain & Newcomer, 2016; Goerisch et al., 2019), both for faculty and early career researchers. A 2019 report from the National Academies of Science Engineering, and Medicine in the USA noted that “An enterprise-wide commitment to effective mentorship in STEMM could lead to effective, high-quality, and sustainable mentoring relationships at all career stages, and it could increase student recruitment, retention, engagement, and success in STEMM.”

Mentoring between more experienced academics and junior faculty is reported to aid continuity in operations within the university; posed as an approach to ef-

fectively develop young academic staff to replace a large retiring academic community, which places strain on the education endeavour throughout the country (Srivichai et al., 2012, p.150). Knowledge management for organisational development through formal mentoring initiatives can promote systematic knowledge creation, sharing, and use (Srivichai et al., 2012, p.151).

Whilst much of the university endeavour is focused on faculty/academics, and the students that they guide at both the undergraduate and graduate level, professional staff constitute a large community within the academic institution (Briody et al., 2022, p.298). This community comprises affiliates providing links to industry that support career-ready graduates in the increasingly corporatised academic institution (Briody et al., 2022, p.310), and internal professional staff, who play a key role in institutional operations, particularly in STEMM disciplines (Ryttberg & Geschwind, 2019). Administrators, research assistants, technicians, and managers all contribute to effective operations in the faculty. These staff members often lack a clear pathway for professional progress, other than applying for a new role with gained experience (Briody et al., 2022). Career-focused mentoring programs have been described, however, for academic librarians (Freedman, 2009), and mentoring programs for other professional staff have also been developed (Western Sydney University, 2024). These staff benefit from the organisational socialisation, which is important for newcomers to career roles to acquire knowledge and social skills to perform at work (Deng et al., 2022, p.10). Similarly, appropriate support of professional staff promotes positive outcomes for the organisation, with enhanced commitment, involvement, and citizenship, allowing the organisation to flourish (Deng et al., 2022, p10-11).

1.3 Graduate researcher mentoring

Graduate students reportedly suffer from more mental health problems than the general population (Evans et al., 2017), which has been attributed to the professional pressure, and financial strains that they typically suffer, and a large number that live away from their support networks whilst pursuing graduate research training. Despite efforts to support supervisor professional development, excellence in supervision is generally less regarded than a principal investigator's (PIs) ability to source research funding to bring to the institution, whilst students and

early career researchers in STEM disciplines are oft seen as the “engine” that makes the research possible (Clement et al., 2020).

Mentoring of graduate students and early career academic faculty has long been reported to address academic socialisation, positively impacting career development (Lechuga, 2011; Zambrana et al., 2015). This is particularly critical for those that come from underrepresented minorities and socio-economic disadvantage (Zambrana et al., 2015). Persons from racial and ethnic minorities, with disabilities, women, and those from low socioeconomic backgrounds are considered to be underrepresented in health-related science careers (Ahmed et al., 2021, p.498), reportedly impacting persistence in STEM graduates (Pfund et al., 2016, p.2). Conversely, positive mentoring experiences throughout education and early career support career progression can overcome these disadvantages (Ahmed et al., 2021; Zambrana et al., 2015).

Common issues like lack of confidence and imposter syndrome can be addressed through mentoring initiatives, where otherwise participants can feel “unanchored…to navigate uncertain waters alone” (Zambrana et al., 2015, p.54). Similar issues often plague both young academics from underrepresented minorities and graduate researchers, particularly around intellectual isolation, self-doubt, and distrust of the academy (Ahmed et al., 2021, p.507; Zambrana et al., 2015, p.56). It is important to note that these disadvantaged groups tend to benefit more from formalised mentoring initiatives given difficulties in accessing informal mentoring relationships (Dahlberg et al., 2019).

It is a common perspective in STEMM disciplines that your academic mentor/group leader/supervisor will be your principle mentor through your graduate training, where your research team offer extended mentorship support (Ouimet et al., 2021). However, it is commonplace for issues to arise, and building a network of colleagues and mentors beyond your immediate research team can provide a wider support network for junior researchers. Peer networks with other graduate researchers, postdoctoral fellows, senior investigators, and professional society networks constitute a healthy professional network for junior researchers to actively build during their graduate training (Ouimet et al., 2021).

1.4 Junior faculty mentoring

Employment opportunities for early career researchers are precarious by nature, with temporary contracts and instability in employment that has drawn the attention of the OECD as a major issue to be addressed (OECD, 2021). This precarity is even more significant for women, and ethnic and minority groups, but mentoring is a key approach that has been proposed to address these inequities (OECD, 2021). Indeed, recent research has identified the “precarity paradox”, which challenges the neoliberal management strategy to maintain productivity and flexibility in the organisation through contract driven precarious employment in faculties (Ferreira & Quesado Delgado, 2023). These researchers demonstrated that precarity fails to “promote productivity, flexibility, or excellence” (Ferreira & Quesado Delgado, 2023, p.10).

In the Australian context, the Franklin Women Mentoring Initiative challenges some of the inequity for women, supporting “high potential women” in health and medical research (Vassallo et al., 2021). The Franklin Women initiative, launched by Melinda Gee, has had a growing widespread impact on women in the health sciences since its inception in 2017, employing a classical one mentor to one protége approach, in a dyadic relationship focused on career development for the mid-career mentee. This program targets “high potential” women in health and medical research with the goal of support their progression to leadership. Franklin Women operates in a pay-to-play approach where institutions secure places for select mentees to receive mentoring for that round (Franklin Women, 2023). Whilst this initiative certainly promotes progression of women to leadership roles, challenging the gender gap, it is not inclusive, and overlooks more junior people that may not survive the sector to mid-career. The program is selective, overlooks researchers outside their remit, and fails to provide support for men pursuing research careers.

Another active Australian mentoring initiative compliments the Franklin Women initiative somewhat, by supporting doctoral students and early to mid-career researchers(Australian Academy of Technological Sciences & Engineering, 2024). The Industry Mentoring in STEMM (IMNIS) initiative provides an excellent opportunity for engagement with experienced industry leads, but of those eligible to participate, all may not find industry engagement attractive.

A recent systematic review noted that the host organisation plays a key role in "selection and matching of motivated mentees and trained and experienced mentors who share complimentary goals"(Toh et al., 2022, p.9). Recognition of trained mentors, oversight, and provision of a code of conduct, as well as a supportive and nurturing environment were also recognised as critical for the organisation to accommodate. Formal mentoring initiatives can be problematic, however, where mentor pairs may not meet, or mentors may not actually provide mentoring (Zambrana et al., 2015, p.54). Therefore, some element of training should be central to any developed formal mentoring program. Key skills that define a good mentoring relationship relate to the ability to listen, demonstrate respect for the other's thoughts, and a sense that each champions the other (Zambrana et al., 2015, p.57).

1.5 Mentoring in the Faculty of Medicine, Health and Human Sciences

This study is focused on identifying experience, attitudes, and perspectives on mentoring in the Faculty of Medicine, Health and Human Sciences at Macquarie University in Sydney, Australia, with the express interest in establishing a fit-for-purpose mentoring initiative in the faculty. A range of mentoring programs have been made available to staff and students in our faculty, which are generally external to the faculty. These include Franklin Women (franklinwomen.com.au), IMNIS (imnis.org.au), and peer mentoring for PhD students (with the graduate research academy at Macquarie University). The postdoctoral fellows in the faculty who lead the early career researcher network "EnCouRage" also offer a small annual mentoring program focused on supporting usually around 30 postdoctoral fellows to receive mentoring from senior academics. These programs have supported our people, but they are not inclusive, do not support everyone, and fail to promote wider collegiality among our faculty.

1.6 The Faculty Setting

The Faculty of Medicine, Health and Human Sciences (FMHHS), encompasses the Australian Institute of Health Innovation (AIHI), Macquarie Medical School

(MMS), the School of Psychological Sciences (SOPS), Department of Linguistics, Department of Chiropractic (CHIR), and Department of Health Sciences (DoHS). At the time of surveying, the faculty hosted 371 graduate research students (PhD, Master of Research/MRes, and Master of Public Health/MPH), 385 academic staff, and 302 professional staff. Academics are appointed on a scale from Level A, to Level E (Macquarie University, 2023a), whilst professional staff are appointed primarily at higher education worker (HEW) levels 1 to 10 (Macquarie University, 2023b). The faculty has been closely associated with Macquarie University Hospital (MUH) since its launch in 2010 as a private teaching hospital owned by the university and has a strong clinical focus across all departments and schools. Master of Research (MRes) and MPH students complete their training over a year of coursework, followed by a year of practical research experience culminating in a thesis. Doctoral students (PhD) enrol for typically a 3-year program of research leading to a thesis.

This study was intended to be inclusive, and not focused solely on teaching, research, or administrative roles. Most roles are complex and nuanced to the individual. Every individual brings distinct experiences and capabilities to their position, as well as unique needs for professional and personal growth. This project is focused on identifying these needs to best accommodate our faculty.

2 AIMS

The aim of this research is to determine the needs and related best practice in developing an ongoing mentoring initiative in the Faculty of Medicine, Health and Human Sciences at Macquarie University, Australia. To address this aim, two types of data will be explored.

I: Anonymous online survey of the faculty to gauge their demographics, experience, and interests.

II: Thematic analysis of follow-up focus groups of those who chose to provide their contact details in the survey.

This research is intended to identify the faculty demographics, relative interest and experiences in mentoring, as well as the areas where they may feel that mentoring is needed. The overall question that this work should address is, do our staff and students value mentoring and what would they like to get out of a potential new faculty mentoring program. These findings will underpin recommendations for implementation.

The detailed approaches, findings, and discussion of these findings will be presented in the following chapters.

3 METHOD

3.1 Approach

This project was be pursued in three stages. First, a survey was be circulated to all faculty staff and students to gauge experiences with mentoring (vide infra). The questions explored participant demographics, experiences with mentoring, perspectives, and interest in pursuing mentoring. Second, the survey data was analysed, and interviews/focus groups held to follow up with those that expressed interest in participating. Third, the combined information gained from the principal survey and the interviews/focus groups form the basis of recommendations for the mentoring program that will be established in the faculty. The outcomes of this work will form the basis for the delivery of an ongoing mentoring initiative within the faculty.

3.2 Development of instrument

This survey was developed based on published mentoring survey studies of university faculties. Questions have been adapted to accommodate the situation in Australia and at Macquarie University, Faculty of Medicine, Health and Human Sciences. The questions for the survey were drawn from several papers (Feldman et al., 2010; Schäfer et al., 2015; Tracy et al., 2004; Walensky et al., 2018) and the Australian Bureau of Statistics (Australian Standard Classification of Languages (ASCL), 2016 | Australian Bureau of Statistics, 2016; Standard for Sex, Gender, Variations of Sex Characteristics and Sexual Orientation Variables, 2020 | Australian Bureau of Statistics, 2021).

The survey consists of three demographic questions about the respondent, five questions about current professional status, and nine questions about mentoring, as well as a request for their email if they are willing to participate in follow-up focus groups. The full survey instrument is provided in Appendix 1.

In general, academic appointments, early career researchers, and graduate students were expected to spend most of their time engaged in research, given its importance as a promotion and advancement criteria, with increasing proportions

of leadership practice for higher level positions. Clinical staff and professional staff were expected to participate more in teaching, clinical practice, and doing administrative tasks. To explore these concepts, all respondents were asked what percentage of their working time involved teaching, leadership, research, clinical, or administrative work (Question 6), similar to that described by (Feldman et al., 2010).

Questions 9–13 were intended to gauge the relative mentor/mentee experience that the respondents have had throughout their professional experience, these questions were drawn from pre/post mentoring surveys used by UW-Madison (ICTR, 2024.). The following mentoring questions (14–15) were also drawn from this source, focused on identifying respondent skills that could benefit mentees, and what mentees felt they would benefit from. Question 16, which outlined research, teaching, clinical, and career skills that mentees believed they would benefit from in a mentoring relationship was adapted from (Feldman et al., 2010). Question 17 asked whether the respondent would be interested in participating in a faculty mentoring initiative, and finally question 18 asked whether the respondent would provide their email to be contacted to participate in a follow-up focus group or interview via Zoom, which would be recorded and reviewed for analysis.

The survey was created in REDCap (Research Electronic Data Capture, redcap.mq.edu.au/), a web-based secure data-capture software that is endorsed by Macquarie University.

3.3 Survey distribution

The project is set in the Faculty of Medicine, Health and Human Sciences (FMHHS) at Macquarie University and is focused on determining how a mentoring network can best support staff (both academic and professional) and students (MRes and PhD).

The initial survey was circulated to the faculty via email with an explanation of the survey and a link provided to the REDCap survey. At the time of survey, there

were approximately 371 graduate research students (PhD and MRes), 385 academic staff, and 302 professional staff in the faculty. Given that staff in the faculty offer valuable insight about professional development in their speciality of interest, this mentoring study will include all academic, professional, and technical staff, who may each provide valid mentoring support. Considering our total survey population is comprised of approximately 1058 people, survey responses from 282 or more people are needed to have a confidence level of 95% so that the real value is within ±5% of the surveyed value. Some responses will be incomplete as questions are not required to be answered to progress with the survey.

The survey was distributed to all faculty members through an email announcement by the Executive Dean of the Faculty of Medicine, Health and Human Sciences (Appendix 2). A follow up email was also sent to encourage more responses. Overall, the survey remained open and collecting responses for 28 days.

3.4 Survey Analysis

Survey data was downloaded from REDCap for analysis. Data was analysed with Microsoft Excel and SPSS for statistical analyses.

3.5 Focus Groups

Those leaving their email contact details were contacted and invited to participate in an interview or focus group. Individuals selected either individual interviews or focus groups depending on what they were most comfortable with. These were conducted via Zoom, for approximately half an hour, and recorded for later transcript analysis. The moderator used a question guide and demonstrated care to allow the participants to fully answer questions and develop ideas. The following question guide was used in interviews and focus groups to guide the session (TABLE 1), which was adapted from published focus-group research (Mackner et al., 2014).

TABLE 1. Focus Group and Interview Question Guide.

Question	Topic	Probes
1. What does peer mentoring mean to you?	Program goals	
2. What is your optimal mentor like?	Mentor/mentee characteristics	How old? Have a similar background? More than one mentor? Personality characteristics?
3. What does a good mentoring relationship look like?	Interaction characteristics	Frequency of contact? Length of relationship? What Type- email, phone, in-person, text, social networking sites? Where?
4. What would a mentor and mentee do together?	Activities	Discuss Career counselling? Work/life balance? Formal or informal meetings? What types of engagement?
5. What is an optimal mentoring program?	Program design	Matching? How Long does it last? Does it start at a specific time?
6. What do you want to get out of the program?	Program goals	
7. How do you feel about participating in a program like this?	Concerns/barriers	

Interviews lasted between 30–45 minutes and were conducted by the author. All participants were encouraged and prompted to speak on each issue being discussed, and to share their own points of view, which often differed dependent on their personal professional experience. The interviewer was mindful of establishing rapport and reinforcing trust, therefore a short period of unrecorded pleasantries was standard, followed by an explanation of the project before commencing the recording and question prompts. Several participants asked questions about the purpose and background of the project.

3.6 Focus Group Analysis

For interviews/focus groups, data analysis followed the protocol described by Mackner et al. (2014) and the guidelines provided by (Braun & Clarke, 2006). In brief, digital recordings were transcribed verbatim, and transcriptions verified against the recordings. Analysis was conducted by the moderator that held the session. Transcriptions were analysed by directed inductive content analysis, involving coding and identification of themes and subthemes. Categories and subcategories were coded against the text. These categories were defined during analysis.

3.7 Ethics

This project received ethics clearance so that the data sourced from surveys, interviews, and focus groups can be used for publication purposes, where information will be deidentified, summarised and analysed. The ethical aspects of this study were approved by the Macquarie University Human Research Ethics Committee (Approval #520231542650022; Appendix 3). Participants provided their consent to participate in the survey by selecting “I agree” in the online REDCap survey as a requirement to proceed with the survey proper (Appendix 1).

3.8 Statistics

Data is expressed as mean ± standard deviation where relevant. All statistical analyses were performed using Microsoft Excel (Microsoft Corporation, Redmond, WA, USA) or IBM SPSS Statistics for Windows, version 29 (IBM Corp., Armonk, N.Y., USA).

4 SURVEY RESULTS

4.1 Participation

Altogether 289 (27%) of the 1058 faculty members to whom the questionnaire was sent agreed to participate in the survey. Of these, 75% returned a fully, or an almost fully answered questionnaire (n=214), 19% only answered the demographic questions (n=56), and 6% failed to complete any questions (n=19). A follow-up email was sent to all respondents that had provided their email to participate in follow-up focus groups or interviews. Of the 76 respondents that agreed to participate in focus groups (26%), 28 (10%) booked a time and attended a session. These details are shown graphically in Figure 1.

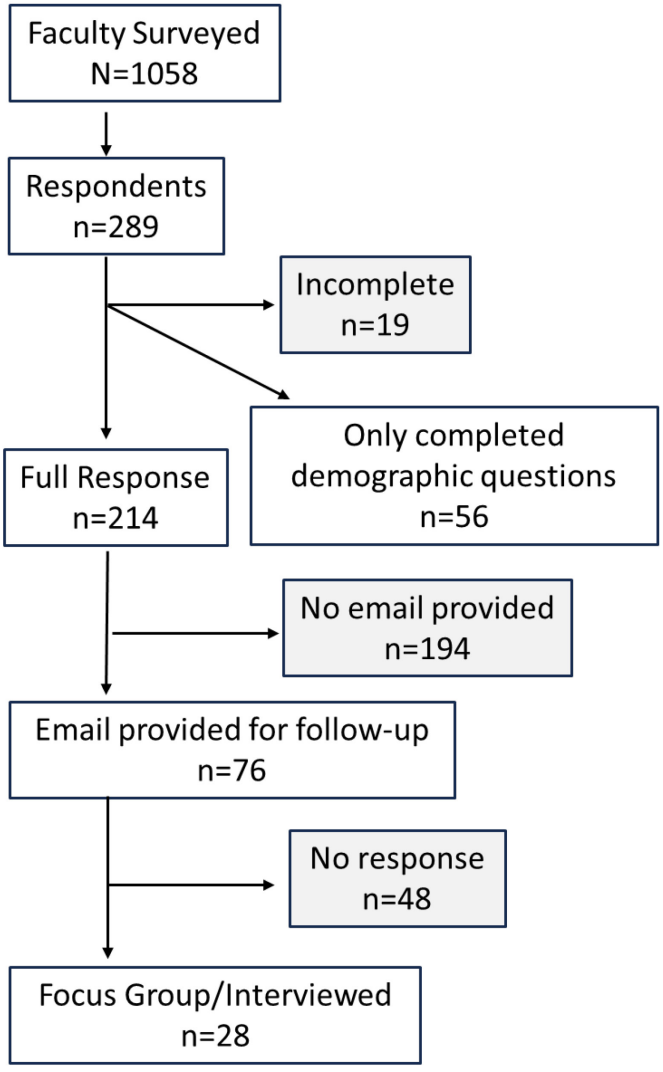


FIGURE 1. Summary of participation in study.

4.2 Survey demographic results

The survey results demonstrated that women were more likely to respond to the survey than other genders (TABLE 2). Cultural backgrounds were diverse but dominated by non-indigenous Australians. Some respondents noted cross cultural background in this question, thus may have answered with more than one cultural background. Altogether 135 were from Oceania, 59 from Europe/UK, 67 from Asia, 22 from the Americas, 12 from Africa, and 11 did not specify. Cultural diversity was inherent across all job categories.

TABLE 2. Gender and Cultural Background of Respondents.

GENDER	**n**	**%**
Man/male	54	24.50%
Woman/female	160	72.70%
Non-binary/genderqueer/gender-fluid	3	1.40%
I use a different term	0	0.00%
Prefer not to answer	3	1.40%
CULTURAL BACKGROUND	**n**	**%**
Indigenous Australian	2	0.70%
Australian (excl. Indigenous)	129	47.80%
New Zealander (not Maori)	3	1.10%
Melanesian, Papuan, Micronesian, and Polynesian	1	0.40%
Anglo-European	31	11.50%
North-West European (excl. Anglo-European)	14	5.20%
South-East European	14	5.20%
South-East Asian	32	11.90%
North-East Asian	24	8.90%
Southern and Central Asian	11	4.10%
North American	10	3.70%
South and Central American and Caribbean Islander	12	4.40%
North African and Middle Eastern	9	3.30%
Sub-Saharan African	3	1.10%
other	11	4.10%

Percentages presented as valid percentages, relative to all that responded to the question, 69 people did not answer the question relating to gender.

More women responded to the survey than any other gender. When responses in each job category were calculated as a representative percentage of total male (n=54) or female (n=160) respondents most were gender equal (TABLE 2, FIGURE 2). The three non-binary/genderqueer/gender-fluid and three “prefer not to answer” respondents were not included to this analysis due to low numbers in order to protect identities. These respondents were either graduate students or professional staff and all responses for academic staff were binary. More men were representative as a percentage of respondents for Level D and E academics and proportionally more women represented respondents at PhD, postdoc, and Level B. Actual disparity in gendered leadership diverges in the faculty for Level E appointments, where 66% are men whilst an equal number of men and women are appointed at Level D in FMHHS (FMHHS appointment statistics provided by Human Resources, Macquarie University).

Overall responses for professional staff were comparable to overall appointments in FMHHS, where 25.49% of professional staff respondents were men, compared to 27.48% of all professional staff appointments. Similarly, women represented 72.55% of professional staff respondents, compared to 71.19% (FMHHS appointment statistics provided by Human Resources, Macquarie University). Academic staff responses were not entirely representative of the gender statistics in the faculty where comparatively more academic women responded to the survey (78.26% of all academic respondents) than the actual population (58.10% of academic appointments). Comparatively fewer academic men responded to the survey overall (21.73% of all academic respondents) than those representing the population (41.40% of academic appointments).

Diverse language skills were evident in the surveyed population, where English was considered native for 65% of respondents, but others derived from multiple other locations (TABLE 3). No difference in distribution of language or cultural diversity was evident across job categories or gender. All languages surveyed were represented by the respondents, and Auslan was added as a specified language by four respondents. Eight respondents noted that they had skills in other languages not represented but did not specify which.

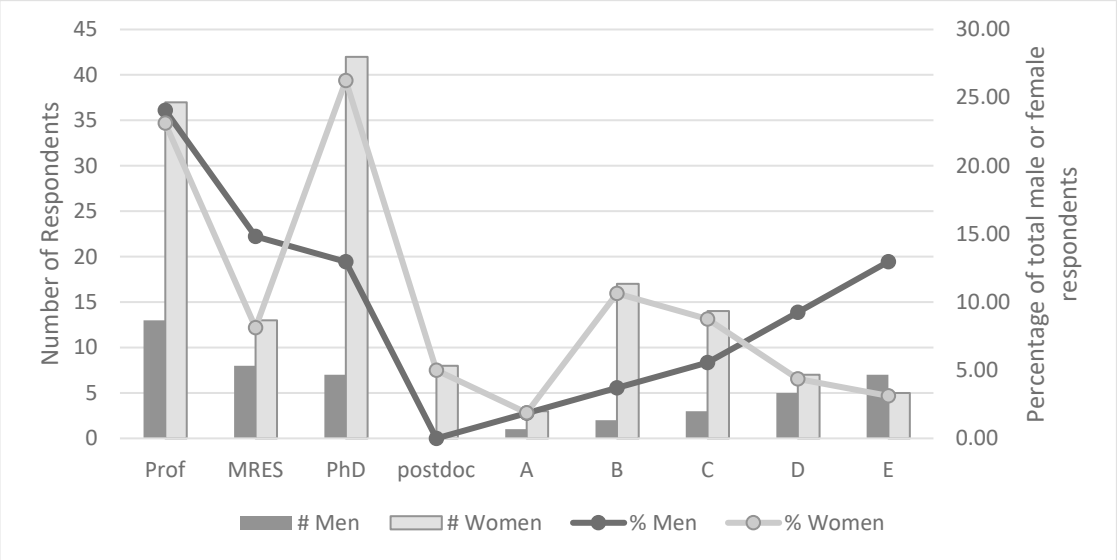


FIGURE 2. Gendered responses relative to job category.

The number of respondents in each job category are shown (dark grey bars for men, light grey bars for women). The relative percentage of men or women responding in each category are shown as a linear point.

TABLE 3: Languages of Respondents.

LANGUAGES	**native**	**fluent**	**working proficiency**	**basic under-standing**
English	187	59	14	
ATSI				3
Maori, Melanesian, Papuan, Micro-nesian, and Polynesian languages				2
Western European languages	13	5	8	16
South-East European languages	12	7	4	14
South-East Asian languages	15	5	4	6
North-East Asian languages	16	4	3	9
Middle Eastern Languages	6		1	2
Southern and Central Asian lan-guages	7	2	4	1
African languages	3	1	1	0
Auslan	1	1		2
other unspecified	3	1	1	3

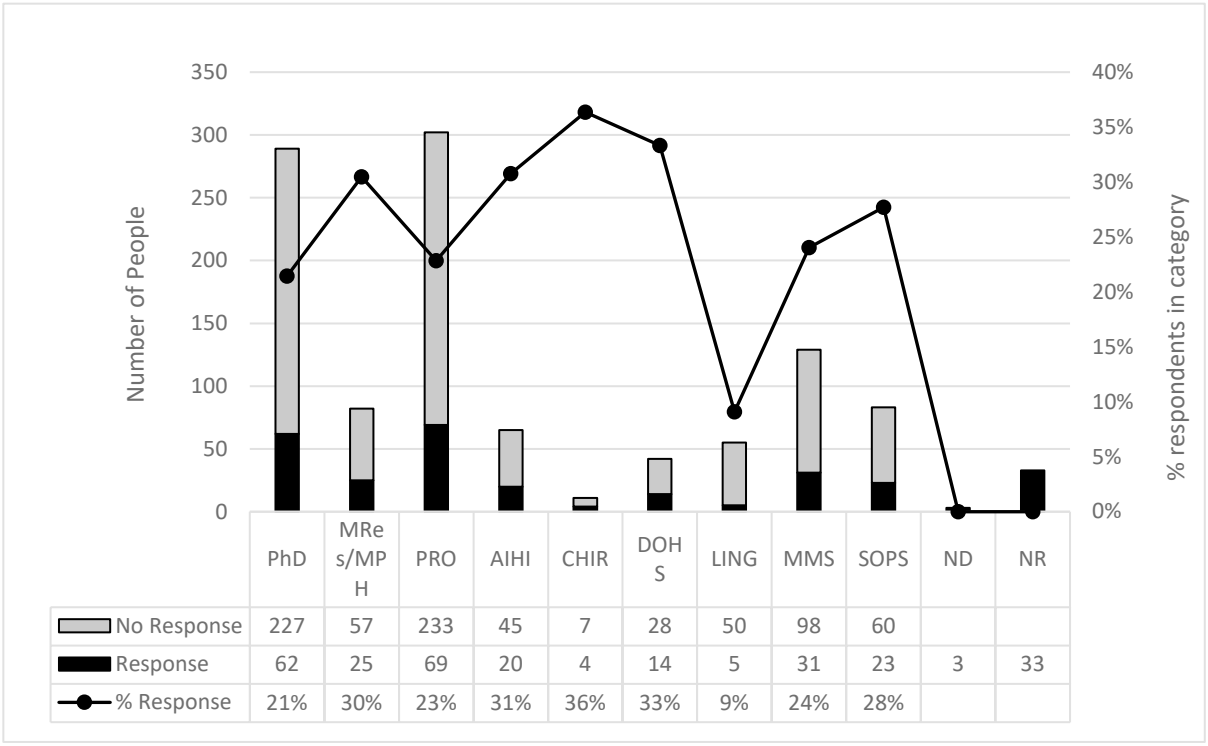
4.3 Departmental engagement

Departmental engagement data is displayed as head count, rather than full-time equivalent position to accommodate responses from staff that may have part-time appointments (TABLE 4, FIGURE 3). Academic appointments to the six departments/schools include postdoctoral fellows and other academics on fellowships. Note that Master of Public Health holds a research year option, equivalent in nature to MRes, and any MPH respondents were grouped with MRes students.

TABLE 4. Responses to survey by department and job type.

	MRes	PhD	PDF	A	B	C	D	E	Pro	All job types
AIHI	3 (1.20%)	7 (2.79%)	6 (2.39%)	2 (0.80%)	6 (2.39%)	4 (1.59%)	1 (0.40%)	1 (0.40%)	8 (3.19%)	38 (15.14%)
CHIR	-	3 (1.20%)	-	1 (0.40%)	-	1 (0.40%)	1 (0.40%)	1 (0.40%)	3 (1.2%)	10 (3.98%)
HEALTH	3 (1.20%)	9 (3.59%)	1 (0.40%)	-	4 (1.59%)	2 (0.80%)	6 (2.39%)	1 (0.40%)	7 (2.79%)	33 (13.05%)
LING	5 (1.99%)	8 (3.19%)	1 (0.40%)	1 (0.40%)	-	1 (0.40%)	1 (0.40%)	-	4 (1.59%)	21 (8.37%)
MMS	8 (3.19%)	17 (6.77%)	6 (2.39%)	1 (0.40%)	7 (2.79%)	5 (1.99%)	4 (1.59%)	7 (2.79%)	19 (7.57%)	74 (29.48%)
SOPS	6 (2.39%)	18 (7.17%)	3 (1.2%)	3 (1.2%)	3 (1.2%)	7 (2.79%)	3 (1.2%)	4 (1.59%)	8 (3.19%)	55 (21.91%)
FACULTY	-	-	-	-	-	-	-	-	20 (7.97%)	20 (7.97%)
All dep'ts	25 (9.96%)	62 (24.70%)	17 (6.77%)	8 (3.19%)	20 (7.97%)	20 (7.97%)	16 (6.37%)	14 (5.58%)	69 (27.49%)	**n = 251**

Data presented as number of respondents and (percentage of respondents). One respondent not included was a faculty appointment that preferred not to say what type of role. One person from Health and one from Macquarie Medical School also preferred not to record their role/position, whilst 33 people chose not to answer which department they were affiliated with. MRes students responded from both coursework and research years of enrolment.



	PhD	MRes/MPH	PRO	AIHI	CHIR	DOHS	LING	MMS	SOPS	ND	NR
No Response	227	57	233	45	7	28	50	98	60		
Response	62	25	69	20	4	14	5	31	23	3	33
% Response	21%	30%	23%	31%	36%	33%	9%	24%	28%		

FIGURE 3: Whole faculty response to survey.

Number of respondents relative to number of people in each position category. Note that 3 people failed to identify their job category from faculty, MMS, and DOHS. No response was recorded for 33 people who had begun the survey. The percentage of response for each job category is noted by a solid black line. ND = Not defined role, NR = no response provided.

All departments, as well as faculty appointments, were represented in the survey responses, across all job families (TABLE 4). The greatest level of engagement was from Macquarie Medical School and the School of Psychological Sciences (SOPS), the two largest departments. The largest representative populations in the faculty are the doctoral researchers (n=289 at time of survey) and professional staff (n=233) (FIGURE 3). The professional staff numbers may be high due to the inclusion of professional entities associated with the faculty, including the speech and hearing clinic, clinical trials unit, research services, surgical skills laboratory, and Macquarie University Hearing, in addition to 68 faculty administrative staff.

4.4 Workload

Workload was assessed by self-reported assignment of percentage working time that respondents typically dedicated to different professional tasks, categorised as: Teaching, Leadership, Research, Clinical, and Administrative. Altogether 43 respondents reported a workload above 100%. Overall, 92 (46.2% valid) indicated that they participated in teaching, 101 (52.9%) in Leadership, 185 (87.7%) in research, 156 (77.2%) administrative, and 38 (23.3%) clinical. Figures 4-8 show the breakdown for how each appointment category gauged their participation in these types of work.

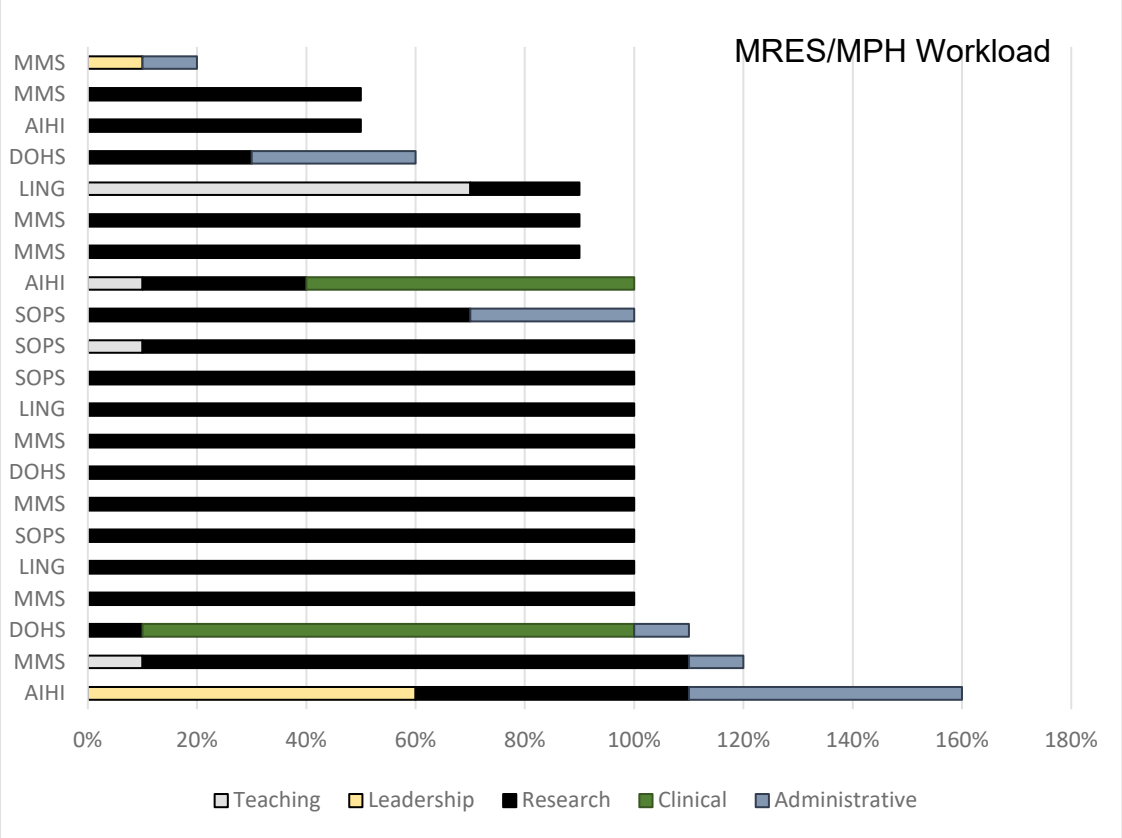


FIGURE 4. Workload percentages for MRes and MPH students.

Percentages provided for MRes and MPH students in survey. Departmental affiliations are shown.

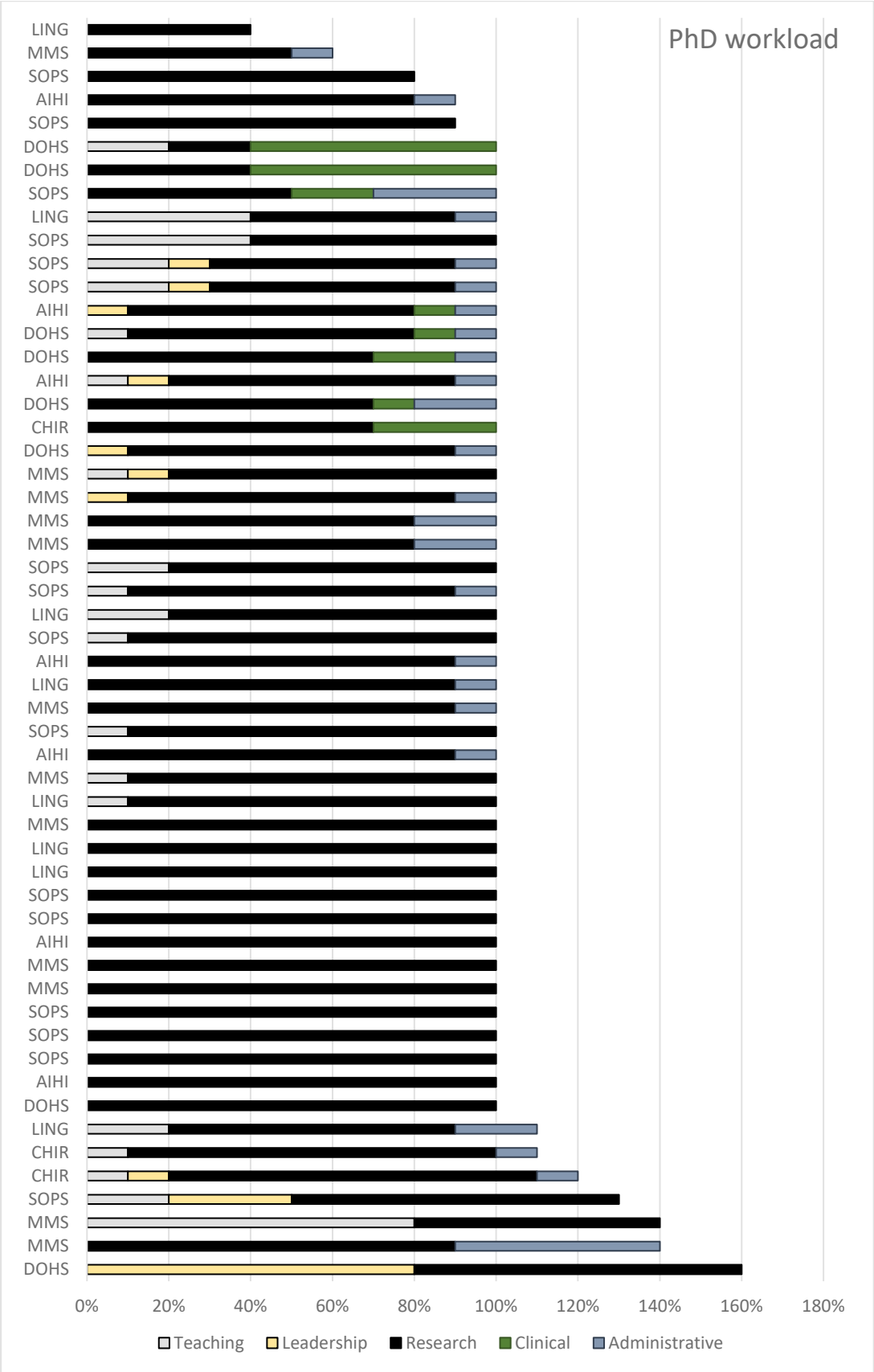
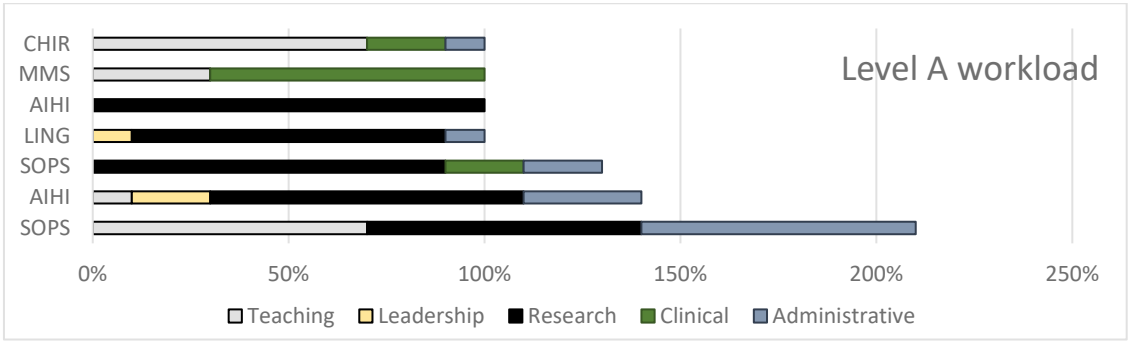
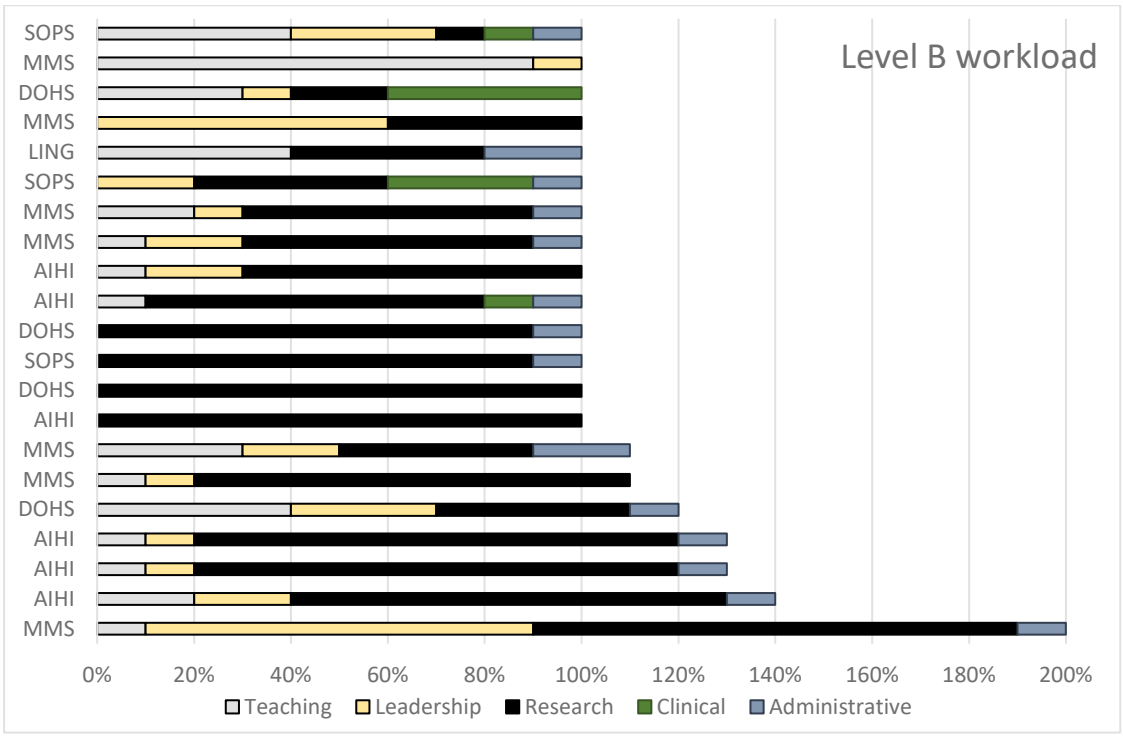


FIGURE 5. Workload estimates for doctoral students.

Percentages provided by doctoral students in survey. Departmental affiliations are shown.





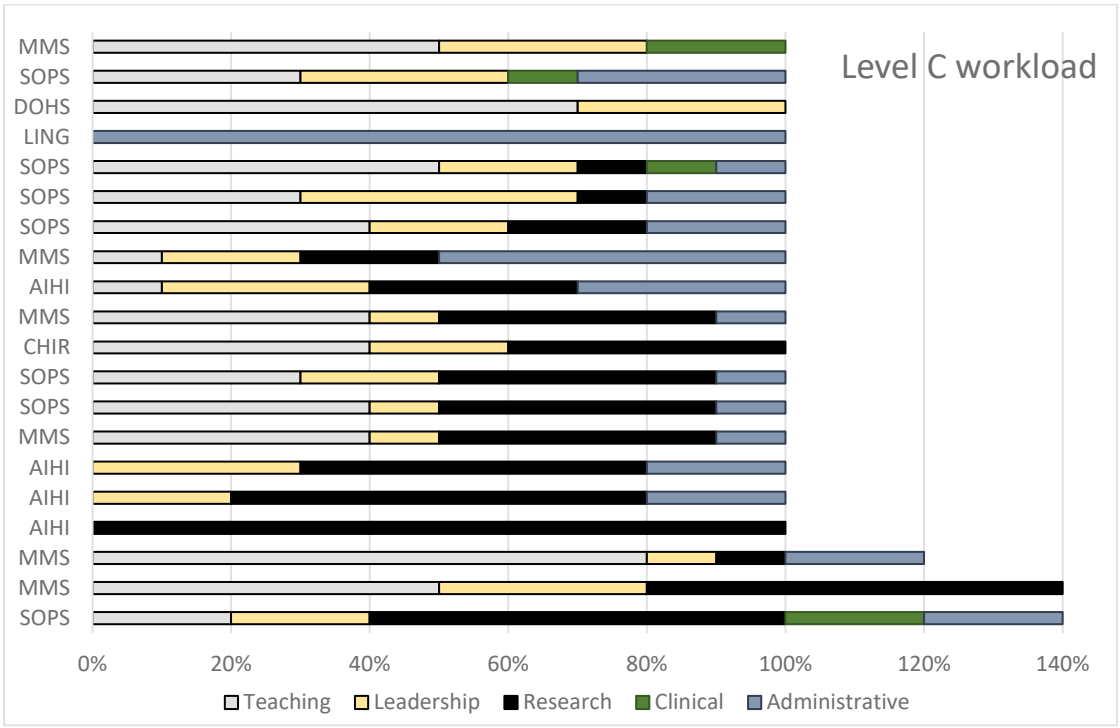


FIGURE 6. Workload estimates for Level A–C academics.

Percentages provided in survey. Departmental affiliations are shown.

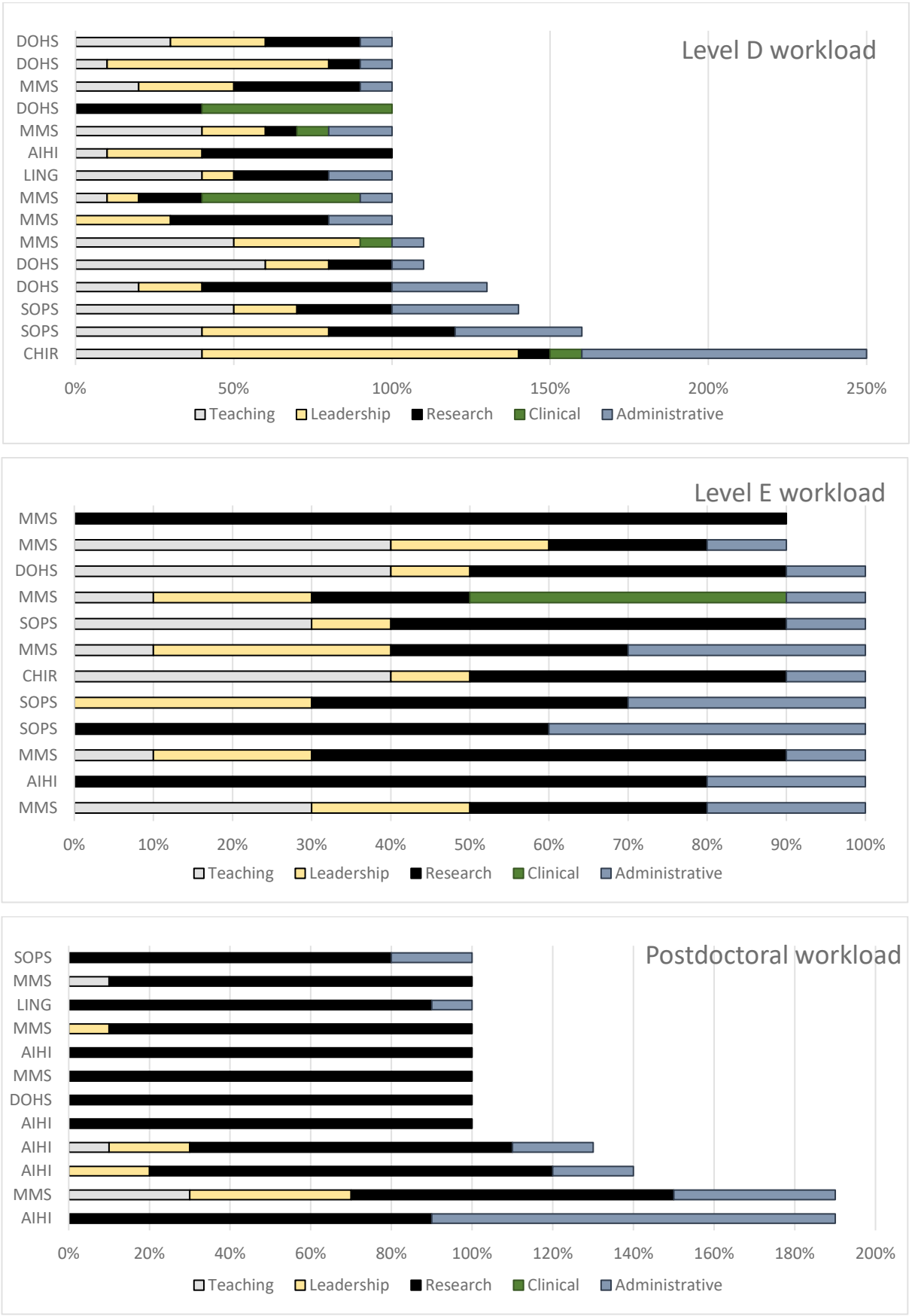


FIGURE 7. Workload estimates, Level D-E academics and postdoctoral fellows.

Percentages provided in survey. Departmental affiliations are shown.

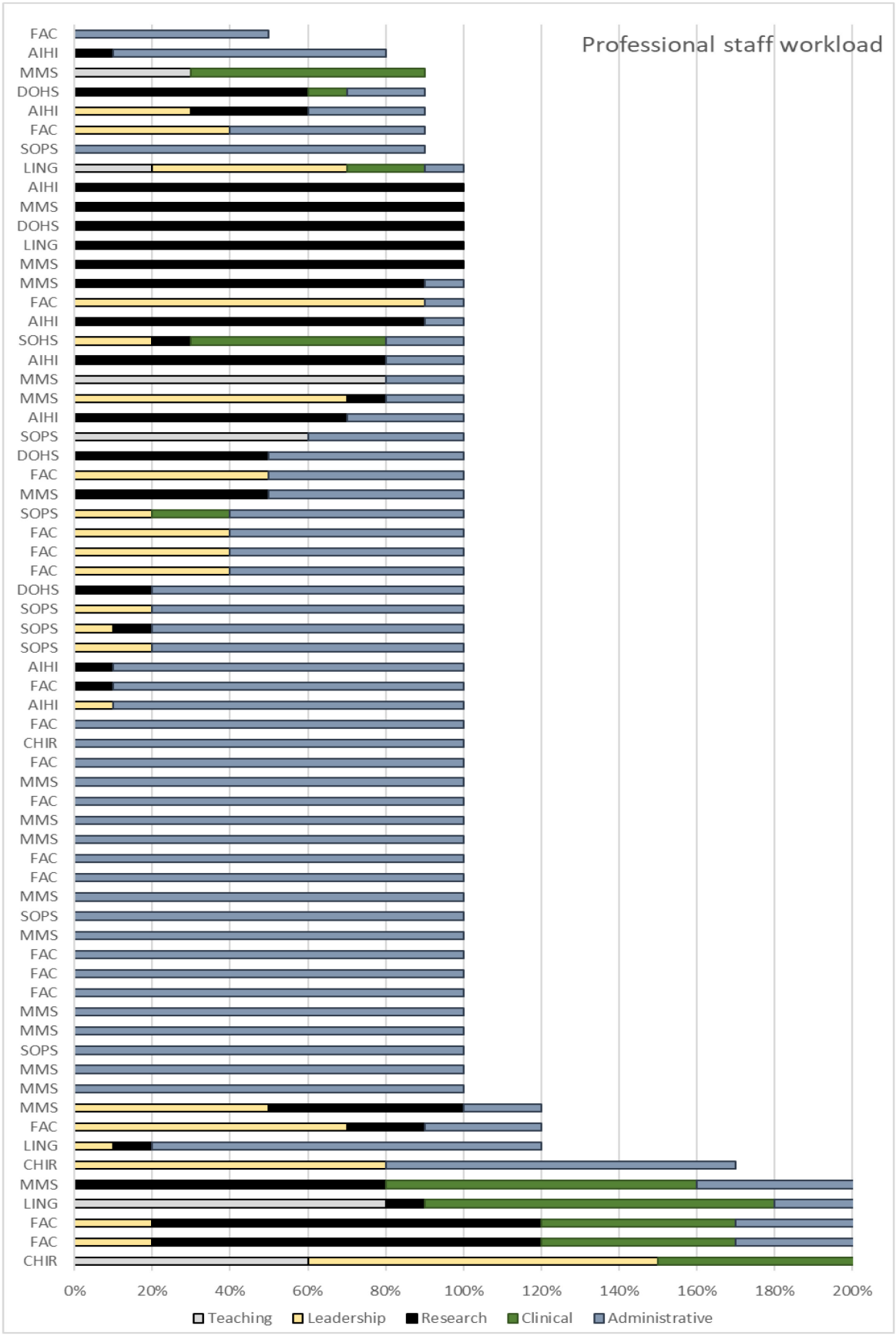


FIGURE 8. Workload estimates for professional staff.

Percentages provided in survey. Departmental affiliations are shown.

4.5 Time in role and at appointment level

The time that respondents had spent at Macquarie was compared to the time that they had been at their current level of appointment (FIGURE 9). Most of the respondents had progressed during their time at Macquarie University (below the blue line), however some had not changed their level of appointment (blue line) or come to the university at the same level from another institution and stayed there (above blue line). People from all job levels were represented in each population.

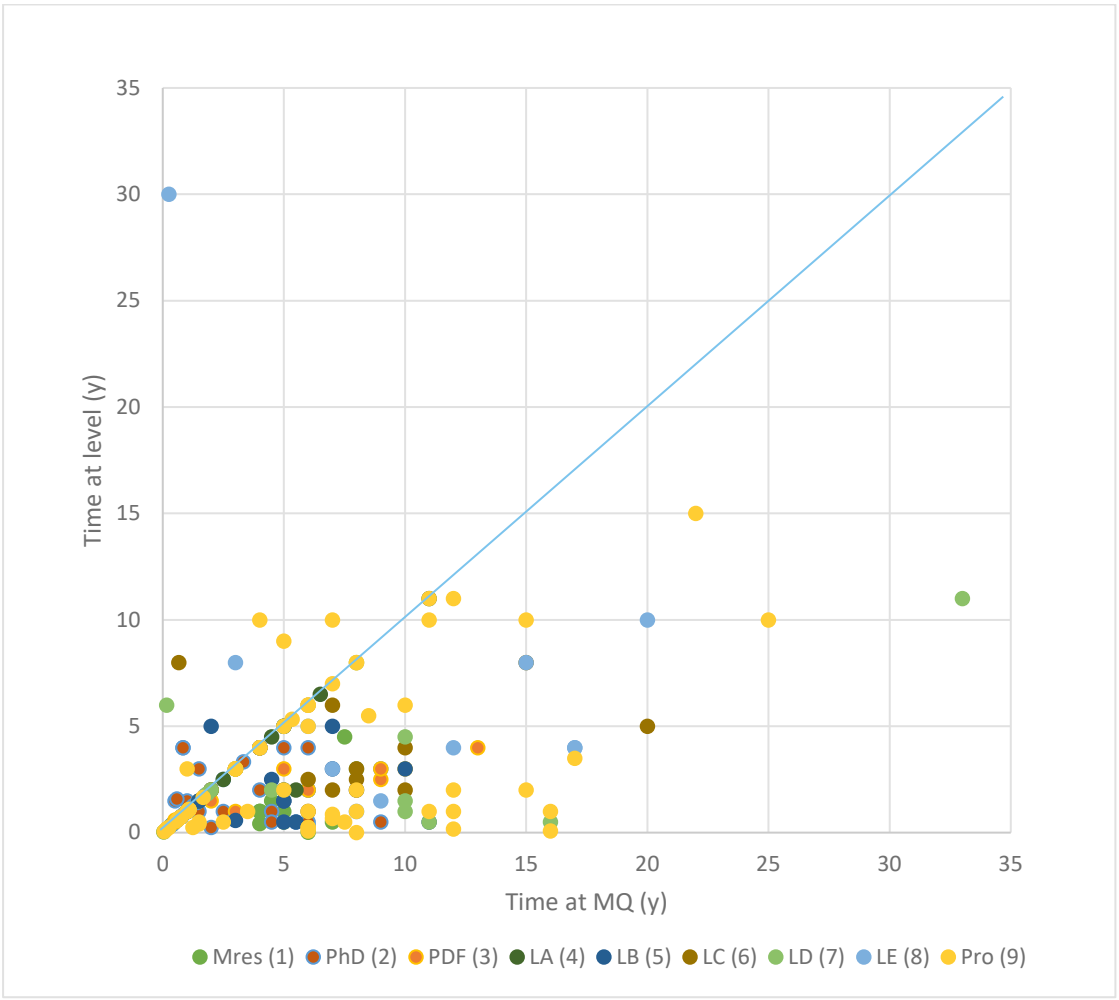
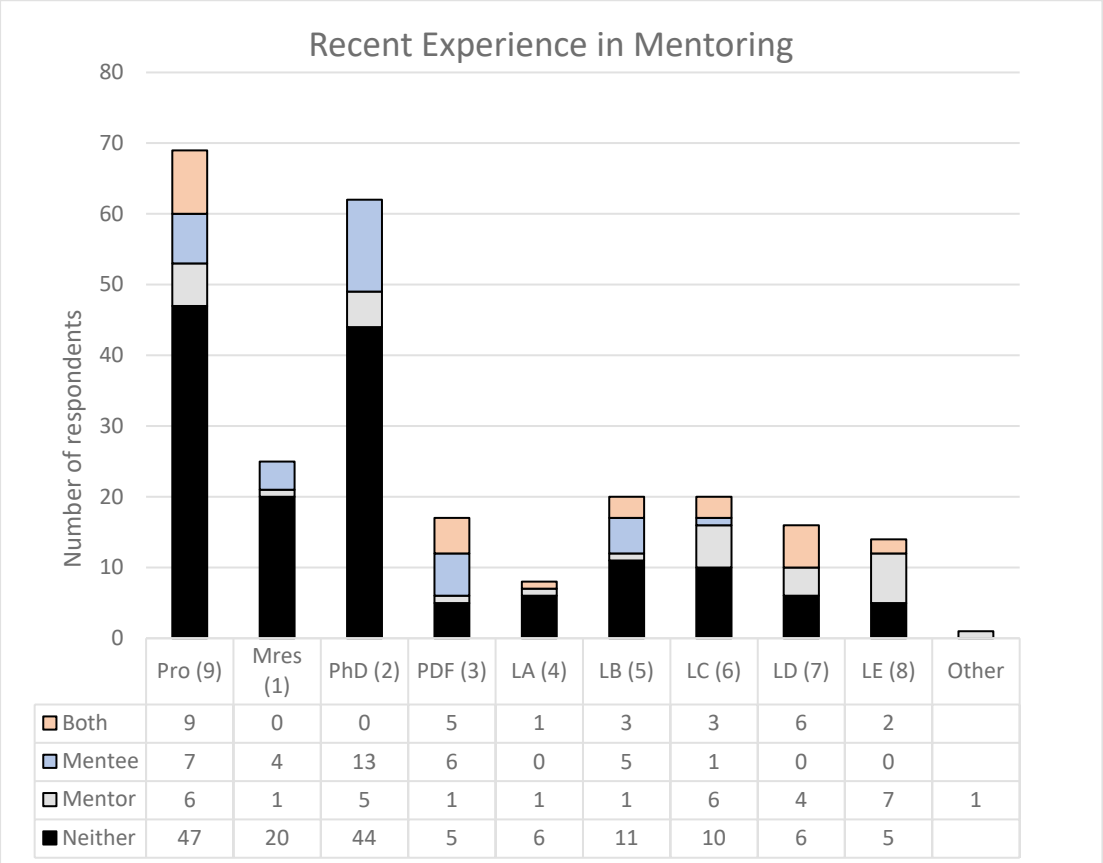


FIGURE 9. Time at Macquarie University versus time at job level.

The light blue line represents those that had never been promoted whilst at Macquarie. Below the line represents people who had been promoted whilst at Macquarie. Above the line represents people who had moved at the same appointment level to Macquarie and remained at that level.

4.6 Mentoring Results

Recent experience in mentoring was assessed by question 9, “have you recently been a mentor or mentee?” (FIGURE 10). Respondents from each job category had recently been involved in both aspects of mentoring. A large proportion of Level D (63%) and E (64%) academics and postdoctoral fellows (70%) have been involved in mentoring recently, likely due to the EnCouRage mentoring program at MQ. Lower engagement with mentoring was evident for MRes students (20%), PhD students (29%), Level A academics (25%), and Professional Staff (32%).



	Pro (9)	Mres (1)	PhD (2)	PDF (3)	LA (4)	LB (5)	LC (6)	LD (7)	LE (8)	Other
Both	9	0	0	5	1	3	3	6	2	
Mentee	7	4	13	6	0	5	1	0	0	
Mentor	6	1	5	1	1	1	6	4	7	1
Neither	47	20	44	5	6	11	10	6	5	

FIGURE 10. Recent experience in mentoring.

When asked about whether those engaging in mentoring had participated in a formal program, a range of programs were noted. Graduate research supervision was considered a formal mentoring program by 17 respondents, and 4 noted course-based mentoring initiatives in cognitive science and medicine degree programs. Twelve respondents participated in mentoring initiatives being run in other faculties or universities. Eight had participated in Franklin Women (Franklin

Women, 2023; Vassallo et al., 2021), three in IMNIS (imnis.org.au), and one in Australian Physiotherapy Association (APA) mentoring. Two professional staff had participated in the recent MQ initiative “Manager Mastery”(Macquarie University, 2022), a three month online program offered for professional staff, and two others had participated in Frankling Women. Fifteen respondents had noted their participation in the EnCouRage mentoring program run by the early career (postdoctoral) network in the faculty.

The number of mentors or mentees that the respondent currently had was the basis for question 12 (FIGURE 11). Altogether 34 responded that they had no active mentor, and 41 that they had no mentees. Some noted their involvement in mentoring in education, others in research, and others in overall career guidance. Altogether 24 respondents indicated that they were actively involved in mentoring others, and 18 were being mentored. Most being mentored had 1-2 mentors, however five had 3 mentors, and one person had four mentors. The number of mentees per respondent ranged from 1 to 15, where the larger number of mentees appeared to be related to course-based mentoring.

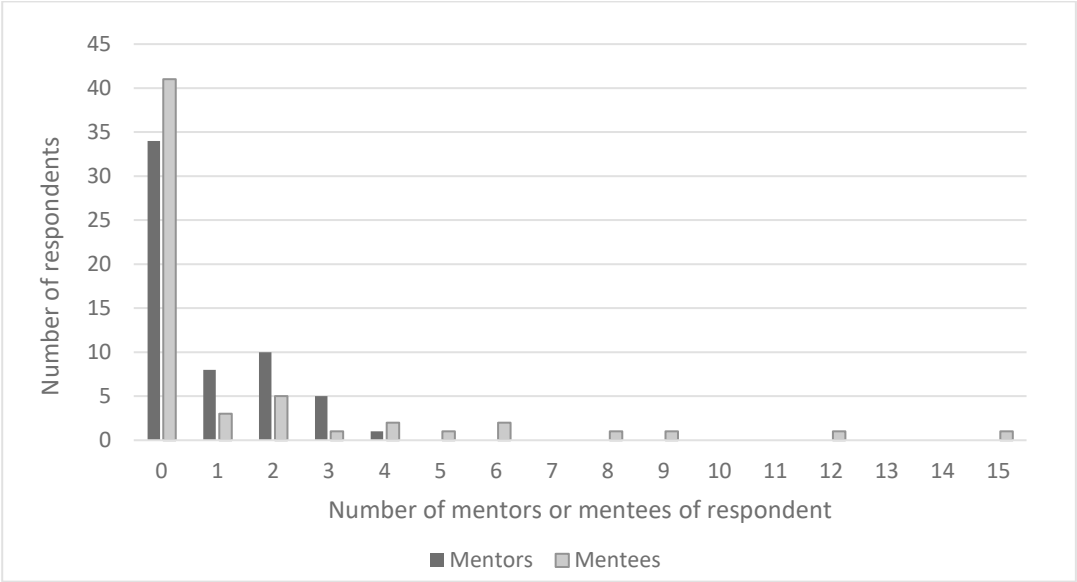


FIGURE 11. Number of active mentors and mentees.

Number of mentors (dark grey) or mentees (light grey) that respondents currently engage with.

Altogether 63 people answered regarding the number of hours spent in mentoring activities (question 13) with an average of 1.38 ± 2.69 hours (min 0: max 16

hours). The few that indicated a higher number of mentees (n=6,8,9,12,15), also noted their involvement in formalised mentoring through coursework degrees, which explains their high number of mentees.

4.7 Mentoring skills

Question 14 focused on gauging mentors, and potential mentors, thoughts regarding the skills that they could offer as mentors where data is provided on a Likert scale (Likert, 1932; Sullivan & Artino, 2013); FIGURE 12), with values: not at all (1), somewhat (2), moderately (3), quite (4), very (5).

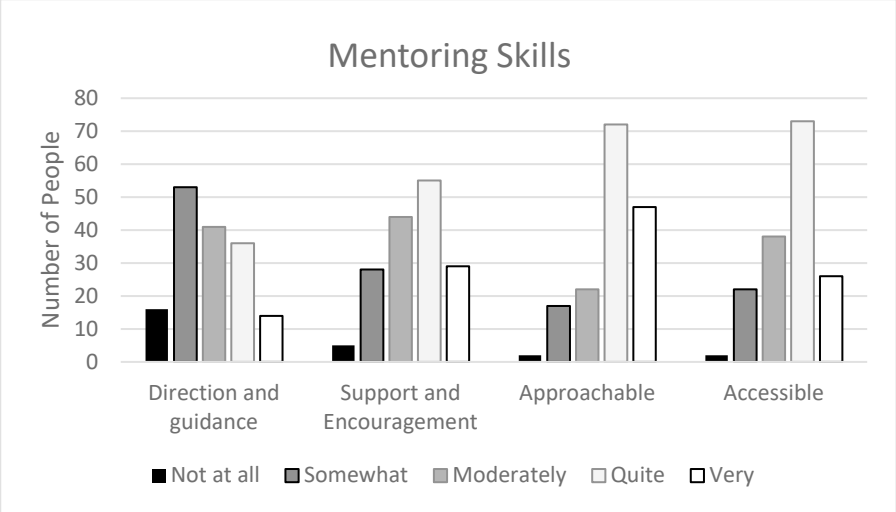


FIGURE 12. Mentoring Skills.

Number of responses for level of self-gauged mentoring skills by 161 respondents.

When the average Likert values for the four mentoring skills questions were compared using a paired T-test, respondents were most confident in their mentoring skills in being approachable (3.91±0.983, n=161), followed by being accessible (3.61±0.956, n=160), providing support and encouragement (3.47±1.073, Hermeneutic-phenomenological conceptual framework has n=161), and were least confident in providing direction and guidance (2.87±1.139, n=160). Each of these four average responses were significantly different from each other ($P<0.001$) using two-sided T-tests, with the exception of providing support and encouragement/accessibility, which was only significant in one-sided T-test ($P=0.036$), suggesting that respondents felt similarly confident in providing these services as a

mentor. There was some variability in the answers for different job categories, where associate and full professors tended to indicate a lower value for accessibility as mentors, whilst professional staff and early career academics and researchers noted less confidence in providing direction and guidance.

4.8 Benefits of mentoring

A question was focused on gauging mentees thoughts about what they might benefit from in the mentoring relationship. Their relative interest in these supports was measured on a Likert scale (Likert, 1932; Sullivan & Artino, 2013; FIGURE 13), with values: not at all (1), somewhat (2), moderately (3), quite (4), very (5).

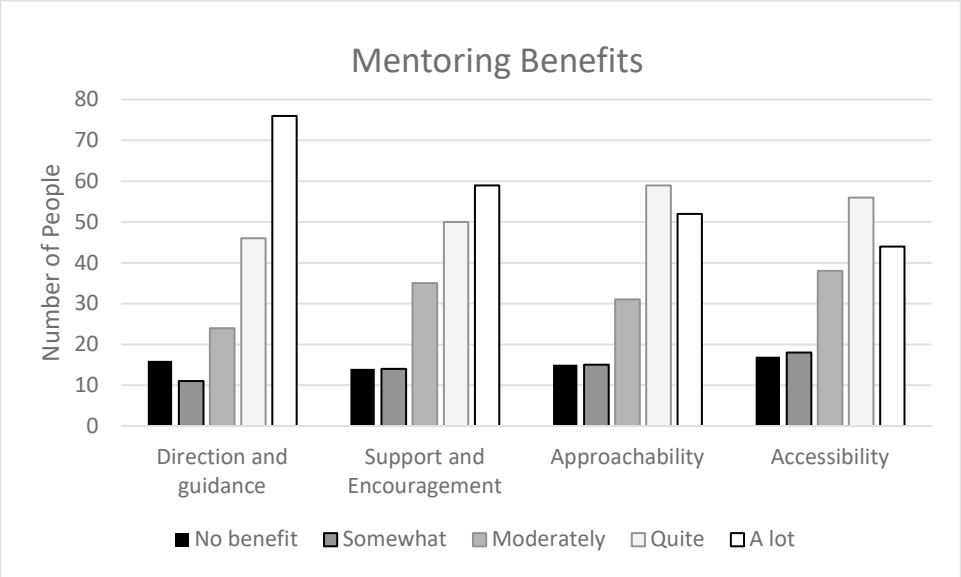


FIGURE 13. Benefits of mentoring.

Number of responses for level of self-gauged mentoring skills by respondents.

When the average Likert values for the benefits of mentoring questions were compared using a paired two-tailed T-test, respondents were most interested in receiving direction and guidance (3.90±1.290, n=173), followed by support and encouragement (3.73±1.242, n=172), approachability (3.69±1.236, n=172), and accessibility was least regarded (3.53±1.251, n=173). Direction and guidance was significantly more valued than support and encouragement ($P<0.05$), approachability ($P<0.01$) and accessibility ($P<0.001$). Both support and encouragement and approachability were significantly more valued than accessibility ($P<0.01$).

Given the scales for questions about benefits and skills are identical, each of the measure averages were compared. Confidence in providing direction and guidance (2.79±1.127) was significantly lower than the value the respondents placed on receiving direction and guidance (3.90±1.290; P<0.001). Confidence in providing support and encouragement (3.73±1.242) was significantly lower than the average value placed on receiving it (3.73±1.242, P<0.01). No significant perspectives between accessibility and approachability were evident.

4.9 Mentor support

For question 16, respondents recorded their interest in different types of mentoring support on a Likert scale from 0–7, no to strong interest (FIGURE 14). Graduate students and early career academics appeared to have a greater interest in different support foci, in particular career planning, seeking funding, and foci that aid research career development, given their higher rank on the Likert scale for various mentoring focus topics.

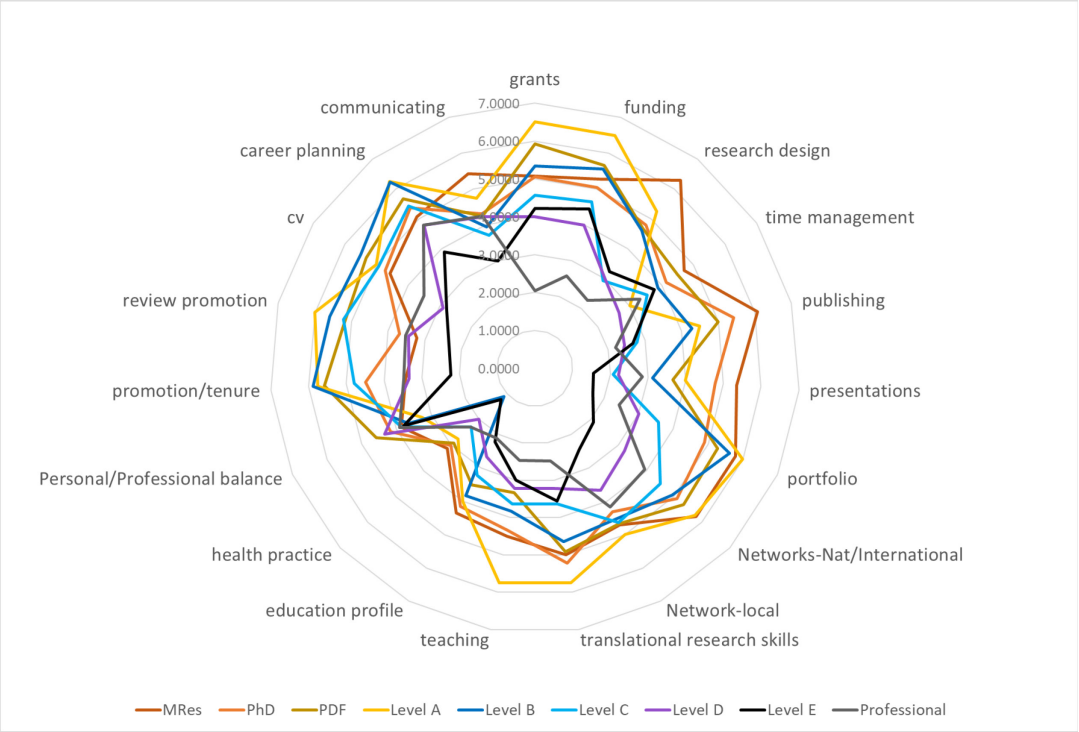


FIGURE 14. Mentoring support focus.

This radar plot shows the relative interest that respondents have in receiving mentoring support on the above topics. Relative interest is provided on a Likert scale from 0 = no interest (centre target), to 7 = strong interest (outer circle). Each coloured value represents the average values from a different job category.

When the Likert responses were averaged for each support foci, career planning was clearly the highest ranked value, followed by networking, funding, and guidance for their curriculum vitae (TABLE 5). Health practice, and education-related topics were the least valued mentoring foci overall.

TABLE 5: Overall interest in mentoring support foci.

Support focus	Mean ± SD			n
career planning	5.16	±	1.958*	172
networks-national/international	4.52	±	2.030*	170
funding	4.36	±	2.261*	167
cv	4.32	±	2.054*	168
network-local	4.24	±	1.888	168
promotion/tenure	4.22	±	2.072*	168
communicating	4.22	±	1.847	169
grant writing	4.20	±	2.324*	169
translational research skills	4.04	±	2.199*	167
develop research portfolio	4.03	±	2.193*	168
review promotion	3.98	±	2.150*	168
personal/professional balance	3.96	±	2.023	169
publishing	3.89	±	2.261*	169
research design	3.86	±	2.225*	169
time management	3.76	±	2.036	167
teaching	3.59	±	1.956*	168
presentations	3.46	±	2.105*	167
education profile	3.28	±	1.981*	167
health practice	2.42	±	1.780**	168

Average overall Likert value for all question 16 responses.

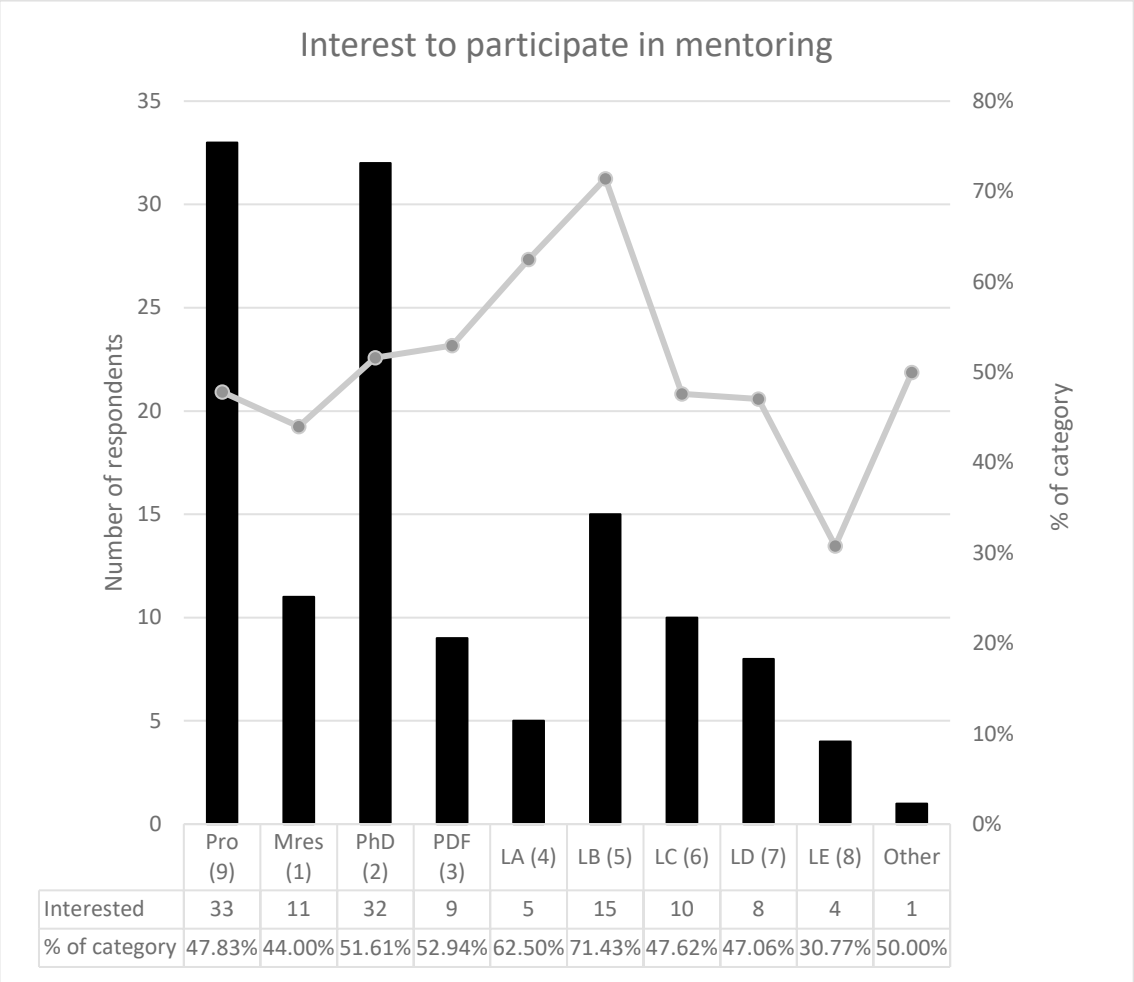
Data expressed as mean ± standard deviation. Relative interest is provided on a Likert scale from 0 = no interest, to 7 = strong interest.

*<0.001, **<0.01 significance between group means by one-way ANOVA

4.10 Interest in mentoring

A good level of interest in participating in faculty mentoring was noted from question 17 — “Are you interested in participating as a mentor or mentee in a new faculty-wide mentoring network” (FIGURE 15). This was particularly evident for

level A (62.5% interested) and B (71.43% interested) academics but was only 30% for Level E academics at the top of the career ladder. Overall, 147 people actively answered this question, to which 126 indicated that they would be interested, or potentially interested, in participating in a mentoring program. Twenty-one answered no to participation, with several citing insufficient spare time, or pending departure from the university.



	Pro (9)	Mres (1)	PhD (2)	PDF (3)	LA (4)	LB (5)	LC (6)	LD (7)	LE (8)	Other
Interested	33	11	32	9	5	15	10	8	4	1
% of category	47.83%	44.00%	51.61%	52.94%	62.50%	71.43%	47.62%	47.06%	30.77%	50.00%

FIGURE 15. Interest to participate in mentoring.

The number of respondents interested in participating in mentoring (black bars) relative to the percent of those respondents in the whole category.

5 FOCUS GROUP RESULTS

Interview and focus groups were completed via Zoom with 8 professional staff; 9 PhD students; and 10 academic staff – 3 Level B, 4 Level C, 1 Level D, and 2 Level E. Of the respondents, 21 were women (72%) and 8 were men (28%). No Master of Research students were interviewed, which is likely due to the interviews being held around the time that theses were due to submit. These respondents were from all representative departments and faculty job categories; however this information is not noted here to protect anonymity. Although the guided questions formed a loose structure for these focus groups and interviews (TABLE 1), respondents were given the opportunity to explore the ideas that were being discussed.

5.1 Focus groups and semi-structured interviews

Three main themes related to mentoring in the faculty emerged from reviewing the transcripts of the focus groups and semi-structured interviews. The three themes included: 1) perceptions of mentoring; 2) pairing; and 3) mode and delivery of mentoring program (FIGURE 16). Responses included positive and critical factors that could aid or impact a potential faculty mentoring program.

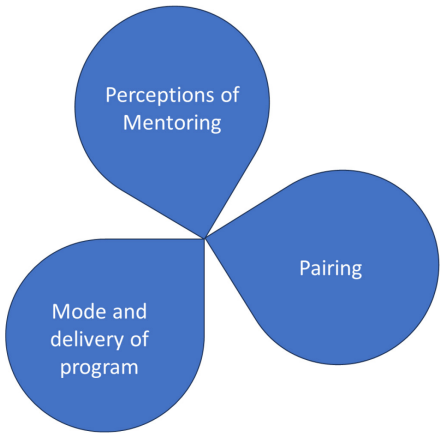


FIGURE 16. Themes of focus group interviews.

5.1.1 Theme 1: Perceptions of mentoring

5.1.1.1. What is a mentor

When asked what they felt a mentor was, many focus group respondents highlighted that the mentor assisted the mentee to grow and develop.

> *"You have the right person at the right time when you need to grow"*
>
> *"I think mentoring is providing the support as much as you can in your capacity and capability to support the person's growth of how they want to grow."*
>
> *"you need to give them advice and say, you know, this is your journey, how you are going to grow, because at the end of the day we want everyone to be successful"*

The relationship was differentiated relative to counselling or coaching, with respondents explaining that a mentor does not need to be goal focused like a coach, or to provide talk therapy or ongoing appointments like a counsellor or therapist. Rather the mentor was suggested to be more casual in tone, that would provide an experienced voice of encouragement for the mentee.

> *"It's basically just having people that will give me the confidence to do things that otherwise I wouldn't go for…like promotion."*

Several highlighted importance of ensuring that a mentor provided positive support within clear guidelines, importantly not undermining established supervisor/student, or workplace leadership models that mentees worked in.

> *"There needs to be a really firmly established, clear objectives and guideline about what the mentor does."*

Some respondents appeared to consider their research supervisors to be like mentors, providing guidance on their research, and how to interpret or analyse their data. Whilst there appeared to be some skew between the respondents confusing supervision practice with mentor practice, most appreciate the mentor as a separate entity.

5.1.1.2. The goals and benefits of mentoring

Some of the respondents were either international students or new to the university environment and saw real benefit to having a mentor to help them understand how things work, someone who has been there and done it before. Goal setting was highlighted as something important that the mentor and mentee might work on together, with the benefit of the mentor's experience. Topics mentioned included work/life balance, career progression, and how to manage conflict at work.

> *"Talking about things like work/life balance or yeah, coming at it from a different, completely kind of different perspective. That would be valuable as well, I think"*

> *"Managing conflicts, I think, is a is a big one, right? It's a big one everywhere. It's so hard to know how to, or you know there's some I know there's some courses in the uni"*

Importantly, there was ongoing reinforcement for maintaining a positive attitude when mentoring.

> *"if they're overtly negative, I gotta be honest. You don't want those people in mentoring programs because they they're going to bring this negative feel to it."*

> *You know you might bounce ideas off like, Oh, did you ever struggle with imposter syndrome? Stuff like that*

Some respondents noted that mentors got just as much out of the mentoring experience as the mentees.

> *"I still have a relationship with my mentor, so I guess I was lucky that she saw the value in it. It's usually a 2 way street, isn't it? Yeah. Yeah. And I think she was really surprised by that. And so was I."*

5.1.1.3. Needs of mentees

Many professional staff and PhD students expressed a deep interest in getting involved in mentoring as mentees. The doctoral students wanted to learn about how to have a mentoring experience and to gain insights beyond their established

research teams, especially about working in the sector, how the whole ecosystem works.

> *I think it's important that the more junior researchers, the Phd and the MRes students, get the opportunity to experience mentoring and that training at the beginning.*
>
> *I'm not on top of all the grants and all the frameworks. I need to know and just somebody who's already been there. It's done it before, and say, you know what this you know. This is a good resource.*

Professional staff expressed a need to develop greater professional connections, to be made aware of how to develop professionally, and to understand what is going on outside of their immediate teams.

> *There's a lot of programs in place at a very high level. But you know, if you take it down to the activities that administrative staff and professional staff do this. Not so much… to formalize that I think would be great*
>
> *"I feel like there's a huge lacking in mentoring for professional staff. The university's got so many different pathways that you could go down as professional and academic. But I just feel like we're very much boxed in now."*

Amongst the professional staff that were interviewed, there was a general consensus that moving to another role, or another organisation was required in order to advance in their careers.

> *"if you don't get support to grow and develop professionally, you'd be more inclined to move on to the next kind of organization."*

The idea of mentoring for professional staff was also supported by a managers, who felt that they wanted to promote more networking of their team to reduce pressure that they felt to be the one point of contact.

> *"As someone that does manage other people like that. It would also be great if they had someone that wasn't me that they could go to. There's like that also kind of keeps them accountable in a loose sense of their work."*

There was an overwhelming sense that those seeking to be mentees were looking for a way to be better at their work, to engage more widely, and to find avenues to advance their skills and employability.

5.1.2 Theme 2: Pairing

5.1.2.1. What are mentees seeking in their mentors

The second theme that emerged in reviewing focus group interviews related to matching, or issues around pairing mentors and mentees. Dyadic 1:1 pairs were uniformly considering the optimal mode for mentoring in this setting, due to the ability of the pairs to develop their relationship during the duration of the program, building trust between them. Most focus group participants felt that mentor/mentee matching should really reflect what type of mentoring the mentee is seeking.

> *"They should be matched according to what the mentee needs, so the mentor can support them appropriately."*
>
> *"I set my goals, and they matched according to the goals I wanted, and match me with someone to achieve my goals, and that was quite specific."*

This might impact whether they might look for a mentor that has more experience and seniority, or even be from outside of their own field, but that might offer "big picture" career thinking, highlighting options beyond their own individual field.

> *"if it's something more broad scale…then it might be even beneficial to have someone from outside"*
>
> *"sometimes it can be helpful if they aren't [too close to your work], because then they can have that bigger picture perspective and not get too ingrained in the in the detail if they're too closely connected"*
>
> *"what I would be looking for is someone that has that outside perspective, can look at things from the bigger picture, can offer unbiased support and guidance"*

Some noted that they would prefer to be mentored someone who was not too far advanced beyond their own role, for example, PhD students noted,

> *“I prefer to have someone who is experienced, but not very far, you know. I mean not a full professor as my mentor. I prefer someone at Postdoc or a Junior Postdoc”*

> *“I think I'd be intimidated by someone higher up. I think a postdoc who understands. It's probably better for me. I think someone who might be more group leader is, I'm gonna feel like I'm wasting that time. I'm gonna be awkward about talking to them.”*

Similarly, some respondents raised concerns about being mentored by people from the same immediate work environment, considering issues around trust, bias and potential repercussions.

> *“I’d find it very difficult to talk to someone from the same group, or someone whose work is connected to me in a way. I prefer to talk to someone who's not biased and of course that person should be ethical and you can trust them.”*

> *“You need somebody who is not on the same administration. it should be quite independent”*

In a similar vein, a senior academic noted the benefit of having someone from outside of their organisation, which allowed them to be more open about the concerns they discussed with their mentor.

> *“We were from different organizations. And so anything that I said wasn't going to directly affect my job. And I think if you want people to be open to be trusting and besides, in their relationship, I think you need to be aware of that.”*

Many favoured the idea of having someone that understood their work in general, but more importantly could provide a broader view away from their immediate day-to-day.

> *“I think it's useful to have someone who has a slightly different trajectory, slightly different history, slightly different area, different discipline, different team that they work within,… I think if you have someone who's too similar, then you don't get that openness of ideas and suggestions.*

Most valued the idea of having a mentor from a different department, at least, to help broaden their network, which was particularly suggested by professional

staff. Conversely, several research-focused respondents were quite clear that they could see no benefit from even someone outside of their own department, indicating that interdisciplinary practices were so different that mentoring would simply not work.

> *“Cause I'm in psychology. I'd want somebody who's probably also in psychology, or maybe something similar, like a sociology, or a social worker or therapist type”*

> *“I think that this this thing can really only be productive, like within discipline lines. you know, because the things that I think a mentor can help you with like saying, this is an important conference, and this is an important journal, or this is how to respond to these reviewer comments. They're sort of largely discipline specific”*

Ultimately, participants suggested that multiple mentors might be warranted for different purposes. Several ideas were posed about finding mentoring pairs that could support capacity building,

> *“because it is about what that person wants, we're helping them to understand what it is that they want a lot of the time”*

> *“I think one of the most important things is someone who's invested in that capacity building aspect.”*

Most capacity building suggested related to broader career planning, professional development, and goal setting. Some researchers, both graduate and academic appointments, felt that mentoring pairing should help the mentee develop research-focused skills, like statistics, data analysis or thesis writing, or exploring the literature and identifying key conferences to attend.

> *“If I am getting a mentor who could actually discuss the statistics I want to apply to my data would be a good thing.”*

5.1.2.2. Encouraging mentor participation

All of the focus groups discussed whether mentoring should be formally recognised in academic workload models and responses were given for and against this idea. Those that felt it should not be included argued that only those keen to

be involved in mentoring initiatives should really be involved, rather than having mentors come because it might be easy points on their workload.

> *“I’m not normally a fan of [putting it in workload model]… You'd rather 5 people that are really invested that are really gonna help out than 30 people who aren't invested.”*

Some suggested that it could be included to end of year performance reviews rather than workload: *“I don't think it should be workload, I think I think it should. you know, be reasonably just part of your citizenship and service…”.* Some agreed, it should be included to workload to promote more engagement by time-poor senior academics. *“Workload allocation? Yeah, I think it should be formalized that way”.* And some kind of recognition through providing a certificate to participants was also suggested.

5.1.3 Theme 3: Mode and Delivery of mentoring program

Theme 3 relates to discussions around how we might run the mentoring program in our faculty moving forward, what the respondents felt might work well.

5.1.3.1. Practicality of program

Making the program formal, rather than just encouraging mentoring pairs to establish their mentoring practice in their own time, was considered a generally positive approach to take.

> *“having it so flexible that it just kind of drops off everybody's radar and doesn't happen,… but also not having it so rigid that you're trying to force it to be what's not appropriate for different people.”*

> *“I think there definitely needs to be a formalized structure that is run a couple of times a year”*

Timeframes for the full mentoring program each year were suggested between 6-12 months, including at least one mid-way checkpoint to make sure everyone is on track.

“So it's not bad to have a checkpoint, let's say, every 6 months. and if it's not working, they can get out.”

“Frequency of it could be over a 12 month period meeting monthly or bi-monthly”

“I would say you would need a a 12 months. February to November. Something like that”

Respondents expressed concerns about if they were matched with someone that failed to engage, or if they simply lacked compatibility. Many indicated that there should be some kind of checkpoint where they might be rematched with a different mentor if possible.

Respondents expressed a range of ideas regarding how regularly mentors and mentees should meet and what kinds of setting. Many felt that this should be agreed between the mentor and mentee once matched, especially relating to the needs of the mentee.

“I really think it needs to be driven by the mentee cause. It's the mentee who needs the mentoring, and it's the mentee who should know enough about him or herself to know what they need and how often they need it. “

Some suggested fortnightly, many monthly, others every six months. There should be some element of flexibility in setting these expectations, with individual flexibility. When asked about preferences for online or face-to-face mentoring, there was a clear preference for face-to-face among the focus group participants, but many suggested that mentoring sessions should be coordinated by the pair, with the mentee taking the lead to organise, and these may be mixed, where some meetings would be online.

“face to face, at least for some of it, cause I think that's better for relationship building, especially if you don't know somebody think things like coffee and alcohol will go well as well”

“I think the mentor should be flexible enough to say, I'm happy to zoom, or I'm happy to do it in person as long as it's not every week.”

5.1.3.2. Events

Most participants noted that they think a launch event should be held where they can mingle and meet potential mentors/mentees, saying “I think you actually need to have some sort of engagement event.” Several suggested that the speed dating held by EnCouRage was valuable, however, it was noted that there were far more mentors than mentees at present, and some respondents noted a lack of interest in gathering to network.

> *“I'm not particularly interested in gathering as a network too much. I've got too many other things going on. So I would prefer just a relationship with the actual mentor. Once we work out who that is? And then I think, navigate it from there between you and that mentor as to frequency”.*

Those that felt networking events would be a good idea provided various suggestion as to how this might be practically achieved, including “a lot of people show up because there's like a lunch with it. You know, it's you know, I would make a special effort to be on campus that day”. One academic mentor noted that “my own preference would always be, you know, beers and nibbles at the end of the day”, but also highlighted that “even the simple case of having a barbecue is, you know, not inclusive of all students. So you probably have to do more than one thing”.

5.1.3.3. Training

A lot of suggestions were provided in terms of including some formal training opportunities with the mentoring initiative, including a professor who highlighted a previous program they had been involved in, which offered a “formal program that involved training of both the mentees and the mentors prior to [beginning mentoring]”.

> *“you don't just put people together and say, Okay, now you're mentoring. I think you've got to give some structure and some guidance, particularly people haven't mentioned before, or they don't really know how to do it. I think if you gonna make this successful, you need to set up”*

Several highlighted the importance of helping mentors and mentees in “setting expectations as well around what the kind of roles are for the mentor and the mentee” as well as goal setting.

A number of interviewees said that they would appreciate “a range of different workshops and presentations from broad things around communication pathways, opportunities. Getting people like journalists to talk about how you present yourself”. Some mentors noted that receiving some guidelines or guidance regarding expectations would strengthen their ability to mentor through the program. One experienced mentor noted the value of a workshop they had attended in a previous program that noted the value of learning to be more reflective as a mentor, “not necessarily being directive, but being more of a counsellor. It was really basic training, but it was super helpful”. Similarly, the value of peer mentoring was noted. where mentors could mingle with other mentors, for example.

6 DISCUSSION

This study was focused on surveying and interviewing the staff and graduate researchers in the Faculty of Medicine, Health and Human Sciences at Macquarie University, with a focus on identifying experiences of mentoring and attitudes toward and interest in different elements of mentoring as a practice before initiating a structured faculty wide mentoring program. Although the study was initially undertaken to focus on research students and early career researcher needs, a strong survey response was also seen from professional staff. The survey and consequent focus groups represented people from all departments and job categories, and provided insight into the demographics of the faculty's staff and students, and their thoughts and experiences in relation to mentoring.

6.1 Gender Demographics

Despite the fact that women represented roughly two thirds of the academic respondents, men were more representative in higher level academic roles, which has been widely reported previously (Ballenger, 2010; Fried et al., 1996; UNESCO, 2021). Similarly, women were more representative in lower academic appointments, like PhD, postdoctoral, and Level B job categories. These findings compliment the recent data from the Workplace Gender Equality Agency, which shows a gender pay gap at Macquarie University of 8.5% (Workplace Gender Equality Agency, 2024). This type of demographic has underpinned the development of an Australian mentoring program focused on supporting mid-career women in medical research, Franklin Women (Vassallo et al., 2021), which supports up to five mid-career women in the faculty annually. This initiative overlooks postdoctoral fellows and those appointed to Level A or B academic roles, thus many may be lost to academic progression before being eligible for mentoring by Franklin Women. This career stage tends to coincide with the age at which women begin families in their late twenties (Australian Institute of Health and Welfare, 2023), further exacerbating their departure from the unstable academic career pathway. An apparent disparity between employment level and gender persists according to the presented survey responses, which is in line with global trends of gender disparity in higher education leadership (Meza-Mejia et al., 2023,

p.9-11). Initiatives that have been reported to address this disparity include gendered opportunities for advancement in the professoriate, generally together with a mentoring initiative at a minimum, but optimally with training to enhance gender parity in the nature of mentoring support provided (Fried, et al., 1996). Researchers have also cited the importance of gender matching in mentoring pairs (Obara et al., 2021, p.9), similar to that recommended for therapy dyads (Schmalbach et al., 2022, p.10-11). Therefore, in designing the FMMHS mentoring program, gender matching and gender equality in mentoring approaches should be encouraged.

6.2 Sociocultural concerns of faculty

The cultural backgrounds and language skills of the respondents were diverse across all job categories, likely representative of not only the local cultural diversity of Australia (Australian Bureau of Statistics, 2022), but also of the academic workforce, which promotes international migration of early career researchers and academic professionals (Alsulami & Sherwood, 2020), and related diaspora communities (Bamberger et al., 2021). The cultural diversity of our surveyed academic workforce reflects the trend of international mobility diaspora that is typical of early career researchers (Bamberger et al., 2021; Kato & Ando, 2017, p691-692).

In terms of building an effective mentoring strategy for the faculty, understanding that some participants may find mentoring useful from someone that shares their cultural values is important to consider. Indeed, “cultural similarity, local language proficiency and the ability to build up trust” have been viewed as supportive characteristics for successful mentoring relationships (Kinos et al., 2023, p.175-176). Diversity in higher education is reported widely to be beneficial. It supports social mobility, and enriches the performance of higher education institutions (Coates et al., 2013, p.6). This agrees with Neo-Marxist theory that posits the importance of supporting diversity, rather than promoting a neoliberal approach that promotes the push towards homogeneity (Jiang, 2011, p390-391). Cultural environment has an impact on mentoring efficacy (Gentry et al., 2008, p.249) and cultural sensitivity has been cited particularly in relation to collectivist versus individualist

work ethic (Obara et al., 2021, p.9). Thus, this awareness of the multicultural environment in which the FMHHS organised mentoring initiative is situated will influence how we choose mentoring pairs.

Mentoring is proposed to also aid in promoting the progression of underrepresented minorities in health-related science careers (Ahmed et al., 2021, p.498; Pfund et al., 2016, p.2). Mentoring by senior academics was specifically noted in the recent Australian University's Accord (Department of Education, 2024, s.4.3.2.3), as a means to support early career researchers career development beyond their research practice. This type of support has been reported to overcome disadvantage that is often encountered by women and underrepresented minorities (Ahmed et al., 2021; Zambrana et al., 2015). The provision of a faculty wide mentoring initiative will represent a proactive approach to address the requirements of the University Accord in supporting its early career and graduate researchers (Department of Education, 2024).

6.3 Graduate and early career perspectives on mentoring

Approximately a third of doctoral graduates are reported to leave the academic sector within ten years (Kahn & Ginther, 2017, p.92), which is understandable given the multiple challenges that early career researchers confront including "lack of academic career prospects, publication and grant pressure, work–life imbalance, and the absence of institutional support" (van der Weijden & Teelken, 2023, p.1594). Wide concerns for early career researchers include the "long hours, lack of benefits, and forced geographic mobility" as well as impacts on families and personal lives. It is no surprise therefore that graduate research students, postdoctoral fellows, and early career academics in FMHHS responded to the survey with a greater overall interest in receiving mentoring support. Similarly, career planning and research portfolio development garnered the highest level of interest in terms of mentoring support foci. Whilst 50–70% of those in early career academic roles desired to be involved in mentoring, only a third of those surveyed were actively participating in mentoring activities.

There is an established mentoring initiative in the faculty to support postdoctoral researchers, who have completed their PhDs within the past seven years. Approximately 30 pairs are matched each year through this EnCouRage program. Several early career researchers expressed that it would be beneficial to participate both in mentoring as postdoctoral fellow mentees, but also as mentors for graduate research students. This approach holds potential for a tiered mentoring program in FMHHS that might see better connectivity within the faculty among active researchers. Support has been provided already at the faculty graduate research committee level to begin this type of doctoral mentoring initiative in mid-2024. The data arising from this study and the established literature support the inclusion of training for both mentors and mentees through this type of program (Toh et al., 2022; Zambrana et al., 2015).

6.4 Professional staff perspectives on mentoring

Professional staff showed an unexpectedly high level of participation and interest in responding to the survey, representing nearly a third of all respondents. Most of these respondents reported that they act in predominantly in administrative roles, but responses were received across all work types, including those with a high percentage of leadership, research, teaching, or clinical practice in their roles. Therefore, professional staff represent a diverse group of professionals constituting almost a third of the population surveyed in the faculty.

Although this job category was originally surveyed for the purpose of gauging their involvement as mentors, most expressed an interest in seeking a mentor. Only a third of the professional staff respondents indicated recent experience in mentoring, but more than half were interested in participating in a faculty wide mentoring initiative, with an interest in networking and career development. Nonetheless, university professional staff are often overlooked in mentoring programs for professional development (Briody et al., 2022, p.298-300). Two of the professional staff had participated in “Manager Mastery”, a recently commenced three-month, online program from Macquarie University for professional staff, however it is unclear how much mentoring is involved in this short program. Nearby universities offer established mentoring programs for professional staff, including Western Sydney (Western Sydney University, 2024) and the Australian

National University (ANU, 2024), which mirror the approach taken by EnCouR-age, the early career researcher network for postdoctoral fellows in FMHHS.

The development of a professional staff mentoring initiative will likely best be developed as a centralised university wide initiative, especially for those in administration-heavy roles, given the overall concerns voiced about being mentored "too close to home". This would reflect the approach taken at other universities (ANU, 2024; Western Sydney University, 2024). The data from this thesis study has been shared with professional staff leaders in FMHHS and is likely to form part of the evidence base being drawn on to develop a university wide mentoring initiative for professional staff. Similarly, professional staff will be invited to mentor junior faculty and graduate research students where their skills and experience reflect the needs of the mentees.

6.5 Perceptions of mentoring

The perceptions of mentoring discussed in the focus groups reflected views that have been reported previously (Lindén et al., 2013), where mentoring supports both professional socialisation and personal skills, identity and adaptability. Professional staff, in particular, sought career socialisation, which has been reported to be enhanced through mentoring programs in alignment with social cognitive career theory (Deng et al., 2022, p.10-11). Career mentoring promotes newcomer task mastery, task performance, and job satisfaction by improving newcomer occupational self-efficacy, whereas psychosocial mentoring promote[s] newcomer job satisfaction and social integration via inspiring newcomer social self-efficacy (Deng et al., 2022). Some early career researchers who already had informal mentors noted that their mentor had already empowered them to pursue professional progression, through promotion, which they would not have considered without this guidance, creating a sense of self efficacy and capability that the mentee may not have considered otherwise.

Many focus group respondents held the conventional view of mentoring, where mentors provide career guidance to aid advancement and capacity building, whilst the importance of being able to discuss broader concerns like wellbeing and work-life balance through expressive or psychosocial mentoring was also

highlighted (Curtin et al., 2016, p.717). For doctoral students, formal mentorship may support supervision practices that tend to be theoretically uninformed, tending to “rely on un-reflected skill transfer traditions” (Lindén et al., 2013, p.642), and formal options are especially important for disadvantaged groups due to challenges to access informal mentoring relationships (Dahlberg et al., 2019).

Although, mentoring relationships reportedly promote graduate student retention, successful completion of the doctoral dissertation, and career prospects (Bell-Ellison & Dedrick, 2008, p.566), respondents clearly expressed the need for division between the roles of mentors and supervisors. In order to support mentors in ensuring this role distinction, guidelines and training are recommended to clearly communicate expectations early in the mentoring program (Lindén et al., 2013, p.660). Such training should include materials that help mentors to develop skills in being able to effectively mentor their mentees.

6.6 Mentoring practices

In terms of mentoring practices, most interviewed in the focus groups felt that dyadic mentoring pairs would represent the gold standard in our proposed faculty program. Prospective mentors especially noted their lack of confidence in effective mentoring practice, which reflected the survey findings that mentors had relatively low confidence in offering direction and guidance despite mentees identifying the receipt of direction and guidance as very beneficial. This disparity highlights the need to help mentors to develop these skills. Similarly, many felt that they had only some to no skills in providing support and encouragement, being approachable, or being accessible.

Availability was a major sticking point for Level E academic respondents. This issue was discussed in focus groups, where Level D and E academics noted a lack of time, and several suggested that including mentoring to their workload model, or in their citizenship and service performance guideline, would promote better engagement. Not all respondents agreed with using a workload model, however, which tend to change and can prove problematic (Kenny & Fluck, 2023). There was a wider consensus that mentoring participation might be reported in annual reviews, considered part of citizenship and service, or that a

certification might be provided to participants. A certification may prove an interesting approach if the program included integrated workshops throughout the year to drive engagement and networking, particularly for early career academics as mentors for graduate students.

A hermeneutic-phenomenological conceptual framework has been purported to align well with need-driven mentoring to support doctoral learning, where “the individual’s subjective experience of a certain phenomenon is clarified and interpreted against the background of his or her context” (Lindén et al., 2013, p.643). There is no one-size-fits-all approach that will accommodate the diversity of people in FMHHS, and undoubtedly each mentee will approach the program with their own preconceived ideas about what they would like to get out of a mentoring program. A major concern and discussion point that was raised related to the potential for conflict of interest in mentoring of graduate researchers by people other than their supervisors. Nonetheless, some students highlighted that they would like to match with mentors that could help them with the skills that they were lacking in their research. Clear guidelines should be provided to explain the context of the mentoring relationship in the program supporting doctoral students. This is particularly important given that early-to-mid career researchers will likely act as mentors for graduates, where mentoring experience and training will constitute part of their professional development.

6.7 Implementation of mentoring in the faculty

In terms of delivering a mentoring initiative in the faculty, there was much diverse opinion in the focus groups regarding what was important. Several research-focused respondents, from disciplines like psychology or linguistics, noted that they would prefer to be matched with mentors from within their own discipline, claiming other disciplines simply would not grasp the work being done. Comparatively, others who had often experienced mentoring across disciplines, noted the value of having a mentor more removed from their immediate workplace, who provided the benefit of a wider lens, and a greater element of trust given their distance from the mentee’s day-to-day work (Goerisch et al., 2019). The provision of a broader mentoring program through the faculty, which offers opportunities to select a separate mentor, not focused on the immediate research focus at hand,

may offer an outlet particularly for those that struggle to connect on the same level with their official supervisor (Holt et al., 2016, p.69). It will be important to clarify whether the mentee is seeking a mentor close to their disciplinary or work focus in the pre-matching surveys that will be developed. Most professional staff noted that they wouldn't mind mentors from external to their own team in line with their interest in building their social network across the professional staff space at the university (Lent et al., 2000). Interestingly a professional staff manager noted that they would welcome a mentoring arrangement for their team members, which could give them another form of support in relation to their work, taking the pressure off them as a manager.

Junior researchers indicated that they sought ways to expand their career options through discussing their professional development and direction with mentors. The precarious nature of their roles underpins their need to maximise on the time that they have in their temporary positions (Ferreira & Quesado Delgado, 2023, p.11). One respondent noted that their mentor had said they benefitted from mentoring just as much as the mentee, which is reflective of "reciprocal mentoring" which has been noted as a way for older workers to understand technology or the changing workplace (Harvey et al., 2009, p.1352). Similarly, a senior academic noted the value of networking with other mentors through peer-to-peer connections in training workshops for mentors (Pfund et al., 2016, p.4). Therefore, opportunities for mentors or mentees to attend short training sessions with networking activities with peers would be valuable to aid in skills and community development.

This study has raised a range of suggestions and concerns about the practice of delivering a faculty wide mentoring initiative in FMHHS. The development of the mentoring initiative should draw upon this evidence base to ensure that the program meets the needs of the staff and students that form the faculty. Most respondents claimed that the initiative should span the calendar year, building on the current early career mentoring network being run by the EnCouRage group in FMHHS.

Prematching surveys, and check-ins were suggested, and speed-dating as an approach to connect potential dyadic pairs was strongly supported. Several respondents pointed out that opportunities should be provided to switch mentors

mid-year should the pairing not prove successful. The inclusion of workshops, both online and in person, were supported, as were social gatherings with the understanding that a range of options should be run through the mentoring period to encourage peer-to-peer networking of those participating in the program. Key training should be provided to mentors and mentees, including how to set goals and expectations, define responsibilities, and clarify limitations regarding providing guidance, especially for junior researchers. Goal setting, scheduled video call discussions and group webpage communication have previously been reported to support ongoing engagement in geographically dispersed mentoring initiatives (Rosser et al., 2020), and structure in online mentoring is key (Kumar & Johnson, 2019). One of the key issues that impacts our faculty is the geographic dispersion of our people across the campus, with many often scattered offsite in clinical settings as part of their professional practice. As such, online mentoring practices and events should be considered integral to our mentoring initiatives to support our faculty.

6.8 Conclusions and recommendations

This study was developed to provide an evidence base from which we could develop a fit-for-purpose mentoring initiative in the Faculty of Medicine, Health and Human Sciences at Macquarie University. The study sought to evaluate the experiences and perspectives of faculty staff and researchers regarding mentoring. The overall aim was to identify key concerns and approaches that would best suit our staff and students in the faculty.

At the time of writing, the annual Early Career Researcher (ECR) “EnCouRage” mentoring initiative is about to begin for 2024. In light of the findings of this study, a more sustainable tiered approach to mentoring in the faculty is proposed (Redifer et al., 2021). The graduate research committee has agreed to supporting an ongoing mentoring initiative for graduate research students, where ECRs provide mentoring support. This initiative will work in collaboration with the established EnCouRage program.

The data pertaining to professional staff has been shared with the faculty executive and will form part of the argument for the development of a university wide

professional staff mentoring initiative at Macquarie similar to those described for other universities (ANU, 2024; Western Sydney University, 2024). Professional staff will still be invited to mentor ECRs and graduate researchers where appropriate, but their opportunity to be mentored will sit with the university wide initiative.

The faculty program to mentor early career and graduate researchers will include monthly workshops and informative sessions each month in line with the findings of this study. These training sessions will emphasize peer networking opportunities for mentors and mentees, together with sessions to improve skills related to those emphasized in this study. For mentors, workshops and sessions will focus on how best to mentor, provide guidance, and support mentees, certainly including clarity around mentoring boundaries to prevent overstepping on research leaders' guidance. Mentees will also be provided guidance on setting expectations with their mentors and given training in career-development related topics.

As recommended in focus groups, a certification will be proposed to further attract mentee participation; and a recommendation to include mentoring within the faculty as a recognisable activity for staff, either through workload or annual reporting, will be proposed to the faculty board. These approaches to recognition for participation are anticipated to promote engagement in networking events, thus build a more connected active research community in the faculty.

Since the completion of this study, an ethics amendment has been submitted to permit survey of the mentors and mentees at the beginning and end of the program. Through ongoing evaluation of the participant experiences, it is anticipated that this program can continue to improve and optimise the best fit for mentoring in the faculty (Farkas et al., 2019, p.1322). Given the ethics clearance of the work, this ongoing program will also be reported on to contribute to the expanding evidence base of published content around best practice in faculty mentoring.

Overall, a broad mentoring initiative in FMHHS will now be pursued to support the entire faculty, including professional staff, graduate students, postdoctoral fellows, and academics. This initiative will work collaboratively with key stakeholders throughout the faculty and university to provide the best possible mentoring initiative, that will be ongoing and inclusive, to accommodate the professional development and wellbeing of all staff and researchers in the faculty.

6.9 Study limitations

This data was analysed by one investigator, therefore bias may be considered possible, despite best efforts. Although the data is largely representative of the population, it is possible that those that chose not to respond to the survey, or participate in the interviews/focus groups, may hold different points of view. Participants may have responded in a way that represented their fear of consequences of disclosure to others in positions of power in the faculty.

The cross-sectional study design, and non-random sampling, do not allow causal interference, and may not be representative. Many of the focus groups seems preoccupied with supervisor/student mentoring, likely because the principal researcher is situated in the graduate research training space in the faculty. This has potentially skewed the focus of some interviews. Bias among respondents to the focus group interviews may have been evident in that respondents may have a predisposition towards looking for an outlet to complain.

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APPENDICES

7.1 Appendix 1 – Mentoring Survey

Confidential

Mentoring in FMHHS

All members of the Faculty of Medicine, Health and Human Sciences are invited to complete this survey on your perspectives on mentoring whether you have previously experienced mentoring or not.

The study is being conducted by Dr Jennifer Rowland (jen.rowland@mq.edu.au), on behalf of the Faculty Higher Degree Research Committee.

This survey is anonymous, but you are invited to share your contact details if you wish to participate in an interview or focus group to share your ideas about building a faculty wide mentoring program.

Any information provided is confidential, except as required by law, and all data will be deidentified when analysed and shared, which may include publication.

Participation in this study is entirely voluntary, and you may discontinue at any time. Incomplete survey responses will be discarded, your data may be removed until such time that the data is deidentified and transformed for publication.

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics & Integrity (telephone (+61 2) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

By selecting "I agree" you acknowledge that you have read and understood the above information, and you agree to participate in this research, knowing that you can withdraw from further participation in the research at any time without consequence.	◯ I agree

1) How do you describe your gender?

- o Man/male
- o Woman/female
- o Non-binary/genderqueer/gender-fluid
- o I use a different term
- o Prefer not to answer

If you use a different term, please specify

_____.

2) How would you describe your cultural background?

- o Indigenous Australian
- o Australian (excluding Indigenous Australian)
- o New Zealander (not Maori)
- o Melanesian, Papuan, Micronesian, and Polynesian
- o Anglo-European
- o North-West European (excl. Anglo-European)
- o South-East European
- o South-East Asian
- o North-East Asian
- o Southern and Central Asian
- o North American
- o South and Central American and Caribbean Islander
- o North African and Middle Eastern
- o Sub-Saharan African
- o other

If other, please specify:

_____.

3) What languages are you proficient in?

	native	fluent	working proficiency	basic understanding
English	○	○	○	○
Aboriginal and Torres Strait Islander languages	○	○	○	○
Maori, Melanesian, Papuan, Micronesian, and Polynesian languages	○	○	○	○
North-West European (excluding English) languages	○	○	○	○
South-East European languages	○	○	○	○
South-East Asian languages	○	○	○	○
North-East Asian languages	○	○	○	○
Southern and Central Asian languages	○	○	○	○
African languages	○	○	○	○
Other languages	○	○	○	○

Please specify any other languages that you can communicate in:_____

4) Which department or school are you affiliated with?

- ○ Australian Institute of Health Innovation
- ○ Department of Chiropractic
- ○ School of Health Sciences
- ○ Department of Linguistics
- ○ Macquarie Medical School
- ○ School of Psychological Sciences
- ○ Faculty Appointment

5) What type of role do you have?

- ○ MRes/MPHRes student
- ○ PhD student
- ○ Postdoctoral Fellow
- ○ Academic Level A
- ○ Academic Level B
- ○ Academic Level C
- ○ Academic Level D
- ○ Academic Level E
- ○ Professional staff
- ○ Other [please specify]

If other, please specify:_____

6) In a typical work week, about what percentage (%) of the total hours entered below do you spend in each of the following professional activities?

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Teaching	○	○	○	○	○	○	○	○	○	○	○
Leadership	○	○	○	○	○	○	○	○	○	○	○
Research	○	○	○	○	○	○	○	○	○	○	○
Clinical	○	○	○	○	○	○	○	○	○	○	○
Administrative	○	○	○	○	○	○	○	○	○	○	○

7) How long have you been at Macquarie University?

_____

8) How long have you been at your current level of employment?

_____

9) Have you recently been a mentor or mentee?

- ☐ Mentor
- ☐ Mentee
- ☐ Neither

10) Is your mentoring experience via a formal program?

- ☐ Yes
- ☐ No
- ☐ Not applicable

11) Please specify the formal mentoring programs that you have been affiliated with:

_____

12) Please specify how many mentees you currently have, and/or if you have a current mentor.

_____

13) In a typical week, how many hours do you spend in mentoring activities?

_____

14) Mentors, and potential mentors, please rate how skilled you feel you are in each of the following areas.

(think about your skills generally)

	Not at all skilled	Somewhat skilled	Moderately skilled	Quite skilled	Very skilled
Providing direction and guidance (goal setting, strategy, career support, knowledge and skills, relationship building)	○	○	○	○	○
Providing support and encouragement (active listening, trust building, network building, providing constructive feedback, motivating)	○	○	○	○	○
Being approachable (personality, manner)	○	○	○	○	○
Accessibility (available to meet, communicating well, responsive)	○	○	○	○	○

15) Mentees, and potential mentees, please rate how you have benefitted in, or might benefit from, a mentoring relationship.

(think about your experiences, or what you might seek from a mentor)

	No benefit	Somewhat benefit	Moderately benefit	Benefit quite well	Benefit a lot
Receive direction and guidance (goal setting, strategy, career support, knowledge and skills, relationship building)	○	○	○	○	○
Provide support and encouragement (active listening, trust building, network building, providing constructive feedback, motivating)	○	○	○	○	○
Approachability (personality, manner)	○	○	○	○	○
Accessibility (available to meet, communicating well, responsive)	○	○	○	○	○

16) Which of the following would you appreciate support from a mentor for?

(rate 0 = no interest, to 7 = strong interest)

	no interest (1)	(2)	(3)	moderate interest (4)	(5)	(6)	strong interest (7)
grant writing	○	○	○	○	○	○	○
obtaining funding	○	○	○	○	○	○	○
research design	○	○	○	○	○	○	○
time management	○	○	○	○	○	○	○
manuscript preparation and publishing	○	○	○	○	○	○	○
presentation/posters	○	○	○	○	○	○	○
developing a research portfolio	○	○	○	○	○	○	○
networking nationally and internationally	○	○	○	○	○	○	○
translational research skills	○	○	○	○	○	○	○
teaching	○	○	○	○	○	○	○
developing an educator profile	○	○	○	○	○	○	○
health professional practice	○	○	○	○	○	○	○
balancing personal/professional demands	○	○	○	○	○	○	○
understanding promotion and tenure	○	○	○	○	○	○	○
review promotion	○	○	○	○	○	○	○
curriculum vitae	○	○	○	○	○	○	○
long-term career planning	○	○	○	○	○	○	○
networking on campus	○	○	○	○	○	○	○
communicating effectively with colleagues	○	○	○	○	○	○	○

17) Are you interested in participating as a mentor or mentee in a new faculty-wide mentoring network?

(Please specify mentor or mentee, or both)

_____

18) Please provide your email here

(if you are willing to participate in a short interview or focus group to discuss mentoring)

_____

7.2 Appendix 2 – Distribution emails

The survey was distributed to all faculty members through an email announcement by the Executive Dean of the Faculty of Medicine, Health and Human Sciences.

Faculty Mentoring Survey

So that we can best identify your mentoring experience and needs, please consider participating in FMHHS Mentoring Survey.

This survey is intended to be the first step in the development of a faculty wide mentoring initiative to support professional and academic staff, and HDR students. It is estimated to take no more than 5 minutes to complete.

Please do not hesitate to research out to Jen Rowland (jen.rowland@mq.edu.au) with any questions about this survey at all.

It will remain open until 29th June.

A follow up email was also sent to encourage more responses.

Faculty Mentoring Survey

Thank you so much to all who have already responded to this survey, but we need more responses to be more representative of our staff and students in our faculty.

If you have not responded already, we would hugely appreciate if you could spare five minutes to complete the **FMHHS Mentoring Survey.**

https://redcap.link/FMHHSmentoring

We aim to identify your mentoring experience and needs.

This survey is intended to be the first step in the development of a faculty wide mentoring initiative to support professional and academic staff, and HDR students. It is estimated to take no more than 5 minutes to complete.

Please do not hesitate to research out to Jen Rowland (jen.rowland@mq.edu.au) with any questions about this survey at all.

It will remain open until 18th July.

7.3 Appendix 3 – Ethics Clearance

Medicine & Health Sciences Subcommittee
Macquarie University, North Ryde
NSW 2109, Australia

19/05/2023

Dear Dr Rowland,

Reference No: 52023154265OO22
Project ID: 15426
Title: Faculty Mentoring FMHHS

Approval date: 19 May 2023

Thank you for submitting the above application for ethical review. The Medicine & Health Sciences Subcommittee has considered your application.

I am pleased to advise that ethical approval has been granted for this project to be conducted by Dr Jennifer Rowland, and other personnel: Professor Thomas Fath.

This research meets the requirements set out in the National Statement on Ethical Conduct in Human Research 2007, (updated July 2018).

Standard Conditions of Approval:

1. Continuing compliance with the requirements of the National Statement, available from the following website: https://nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018.
2. This approval is valid for five (5) years, subject to the submission of annual reports. Please submit your reports within three months of the anniversary of the approval for this protocol. You will be sent automatic reminder emails to remind you of your reporting responsibilities.
3. All adverse events, including unforeseen events, which might affect the continued ethical acceptability of the project, must be reported to the subcommittee within 72 hours.
4. All proposed changes to the project and associated documents must be submitted to the subcommittee for review and approval before implementation. Changes can be made via the Human Research Ethics Management System.

The HREC Terms of Reference and Standard Operating Procedures are available from the Research Services website: https://www.mq.edu.au/research/ethics-integrity-and-policies/ethics/human-ethics.

It is the responsibility of the Chief Investigator to retain a copy of all documentation related to this project and to forward a copy of this approval letter to all personnel listed on the project.

Should you have any queries regarding your project, please contact the Faculty Ethics Officer.

The Medicine & Health Sciences Subcommittee wishes you every success in your research.

Yours sincerely,

Dr Joel Fuller

Chair, Medicine & Health Sciences Subcommittee

The Faculty Ethics Subcommittees at Macquarie University operate in accordance with the National Statement on Ethical Conduct in Human Research 2007, (updated July 2018), (Section 5.2.22).