



Head Office
A Level 1,
39 Brisbane Avenue,
Barton, ACT 2600

Postal Address
PO Box 6099,
Kingston, ACT 2604

ABN:
67079 544 513

Email:
info@amsa.org.au

Website:
www.amsa.org.au



Policy Document

Medical Students with Dependants (2024)

Executive Summary

AMSA believes that medical students with dependants bring a unique breadth of knowledge, skills and life experience to the medical community. Stakeholders should implement measures to ensure that students with dependants are provided medical education that can adjust for the unique challenges these students face, whilst not placing them at a disadvantage compared to their peers.

Infant Feeding

Infant feeding is an essential component of parenthood that needs to be juggled around competing academic priorities. With 13 postgraduate medical schools now in Australia, there is a strong rationale behind the increasing need to provide more robust policy and support for infant feeding parents since mature aged students – who are more likely to be starting a family or raising children – constitute a greater proportion of the medical student cohort. The Breastfeeding Friendly Workplace Accreditation guidelines are relevant and transferable to any university space or medical school that aims to support students feeding infants.

AMSA calls upon Medical schools, Universities, State Health Departments to ensure private, comfortable and accessible infant feeding rooms are available and actively promoted at all learning sites to encourage infant feeding, and also work to provide flexible working arrangements so that medical students can feed infants comfortably.

Flexible Learning

Undertaking a medical degree with dependants is feasible [1]. However, it requires educational environments to support flexible learning and maintain a capacity for individualisation in order to meet specific student needs.

Firstly, medical schools can consider the delivery of learning content to be in a manner that enables some asynchronous, place-independent study. Other strategies include limiting timetabled hours to core working hours, enabling alternative sittings for missed classes or examinations due to family responsibilities,

and access to timetables in a timely manner that provide appropriate time for childcare organisation. Reliable and accessible childcare options are essential for academic success, especially for female medical students with children who are the most likely to be a single parent and face discrimination. The possibility of exposure to teratogens and infectious diseases during placement and learning activities also warrant the inclusion of policies that ensure relevant information is readily accessible and that alternative arrangements are made when possible and appropriate.

AMSA calls upon State Departments and Medical Schools to provide and actively promote options for flexible learning plans for students with dependants. This is inclusive of all learning/teaching where feasible in both the preclinical and clinical stages of a medical degree, assessments, and compliance matters, particularly vaccination for pregnant students.

Leave

Most medical schools in Australia, require medical students to notify them in advance for planned absences and when possible for unexpected ones. In the case of sick leave, supporting documents (i.e., medical certificates) are often required as proof for an absence greater than 3 days. Stringent attendance requirements have been repeatedly identified by medical students as impacting negatively on well-being contributing to rates of burn-out [2].

Regarding bereavement, according to the Australian National Employment Standards, all employees are entitled to two days of paid bereavement leave otherwise known as compassionate leave following the death of an immediate family or household member, if they or their current partner have a miscarriage, or stillborn birth [3]. Students however, report frustration at the lack of support from their medical institutions during the bereavement process [4]. Both bereaved and non-bereaved students felt that medical institutions were not doing enough to provide grief education or support to students [4]. In terms of supportive measures and resources, Price et al., (2021) found that most students relied on family and friends from outside of medical school to support them through the bereavement process [5]. The least relied upon resource when dealing with a personal loss was institutional faculty [5].

Regarding parental leave, there is a lack of specific parental leave policies that put medical students with dependants at risk of discrimination and reduced learning opportunities [6]. McGarth et al., found the Australian medical universities rarely identified the specific needs of expectant parents [7]. No guidelines concerning students with pregnant partners (such as accompanying them to antenatal visits or

extended leave) were found [7]. Parental leave is crucial as it promotes physical recovery after childbirth, improved mental health, and improved infant bonding [8].

AMSA calls upon Medical Schools to develop with input from students, actively promote and regularly review policies related to leave and attendance for students with dependants.



Policy Points

AMSA calls upon:

1. State Health Departments to:
 - a. Provide flexible and appropriate guidelines for immunisation of pregnant staff and workers including medical students;
 - b. Provide and promote to all staff with dependants, including medical students infant feeding facilities in hospitals;
 - c. Provide flexible working arrangements to allow staff and medical students to feed infants comfortably;
 - d. Provide and subsidise childcare near placement facilities;
2. Medical Schools and Universities to:
 - a. Recognise dependants beyond children alone;
 - b. Create a positive and supportive culture to remove stigma and discrimination against medical students with dependants and instead encourage and facilitate the growth and success of medical students with dependants;
 - c. Ensure private, comfortable and accessible infant feeding rooms are available and actively promoted at all learning sites to encourage infant feeding;
 - d. Provide flexible arrangements on an individual level in the delivering of learning activities, assessments and placements for all students with dependants, including but not limited to:
 - i. Working with medical students to provide flexible and alternative learning plans including but not limited to:
 1. Modular learning;
 2. Part time courses;
 3. Online recordings;
 4. Off-campus learning options;
 - ii. Provide alternative solutions to deferral by offering a range of individualised learning plans that adequately meet the needs of both the medical school and the student;
 - iii. Providing timetables in advance;
 - iv. Minimising last-minute timetable changes and announcing when changes have been made;
 - v. When organising placements to:
 1. Provide preferential allocation to local placements where possible for students with dependants;
 2. Provide family friendly accommodation for students who will be required to bring families for placements away from home;

- vi. Working with pregnant medical students to prevent where possible exposure to:
 - 1. Formaldehyde exposure;
 - 2. Radiation exposure;
 - 3. Infectious agents capable of infecting pregnant individuals and/or foetus;
- vii. Working with placement providers to offer appropriate placements to pregnant medical students who are unable to meet vaccination compliance requirements;
- e. Limit formaldehyde exposure during anatomy classes and laboratory work by:
 - i. Making readily available any and all information pertaining potential on-campus teratogenic hazards;
 - ii. Establishing a quantitative threshold for the amount of formaldehyde exposure deemed safe;
 - iii. Conducting routine assessments of educational facilities and openly reporting findings;
 - iv. Providing adequate personal protective equipment and ventilation within laboratories and;
 - v. Permitting alternative learning methods where possible;
- f. Proactively guide and support students with dependants during transition times, including but not limited to:
 - i. Returning to study between placements;
 - ii. Pregnancy;
 - iii. Post-pregnancy;
 - iv. Infant loss;
 - v. Transitioning to clinical years;
 - vi. Medical treatments for their dependent;
- g. Create and enact, review and make publicly and easily accessible policies specific to Medical Students with Dependants, including but not limited to:
 - i. Infant feeding and expressing breastmilk;
 - ii. Pregnancy;
 - iii. Workplace Health and Safety Hazard Policies that include specifications for pregnant students, particularly during laboratory work and while on placement;
 - iv. Carers leave and absences;
 - v. Additional support available from both the medical school and the wider university;
 - vi. Assessment policies covering carer emergencies as well as personal emergencies;

- h. Aid medical students with dependants in finding accessible, affordable and convenient childcare by:
 - i. Increasing availability of on-campus childcare;
 - ii. Providing subsidised childcare;
 - iii. Establishing formal agreements with affiliated hospital's childcare centres to allow medical students with dependants access;
 - iv. Actively promoting child care services;
 - i. Establish specific counselling services with appropriately trained staff, continuous academic and psychological counselling services targeted to medical students with dependants;
 - j. Provide financial support for medical students with dependants through services fees, including but not limited to:
 - i. Specific scholarships;
 - ii. Discounted counselling;
 - iii. Other service fees where applicable;
 - iv. Subsidised family-friendly accommodation at placement sites away from a student's usual place of residence;
 - k. Collect data on students with dependants;
 - l. Provide options for medical students with dependants to identify themselves upon student intake;
3. State Medical Student Councils to:
- a. Consult and advocate on behalf of medical students who have dependants; and
 - b. Work with AMSA and Medical Societies to deliver on advocacy related to medical students with dependants;
4. The AMSA National Executive to:
- a. Consult with and advocate on behalf of medical students with dependants;
 - b. Include support of medical students with dependants as an option on the National Priorities Survey;
 - c. Create a mature-aged representative position within AMSA; and
 - d. Make AMSA events more accessible for medical students with dependants;
5. Medical Student Societies to:
- a. Create and enable the growth of medical students with dependants networking groups and programs to allow:
 - i. More organised communication of concerns to medical universities/medical faculties/representative or leadership bodies and advocacy;
 - ii. Holistic support from peers and more senior students;

- iii. Increased opportunities for social and professional networking;
- iv. Provide options to join academic events online or record them for later viewing.



Background

Dependants

A dependant of a medical student refers to an individual, usually a family member, who is dependent for economic support. This includes but is not limited to biological, expectant, adoptive and foster children. Medical school coincides with a time in students' lives when they may consider family planning. The Medical Schools Outcomes Database survey collects data from Australian final year medical students [9]. The 5 years data from 2018 to 2022 indicates that the median age of a final year medical student is 25 while 56.6% of respondents identified as having a partner. Additionally, the adoption of graduate medical degrees has provided an opportunity for students to begin a medical program later in life at a time in which some may have already started or are seeking to begin a family. A recent study has suggested that among United States, Australian and New Zealand medical graduates the rate of non-spouse dependants is close to 10% [10]. Medical studies should be designed to be inclusive for students considering family planning and for those who enter a medical degree with existing dependants.

The importance of family planning and the increased need for greater supports for medical students is underpinned by one study that found over 75% of respondents felt that the decision to have a child was influenced by the choice to study medicine, with most citing negative factors such as sleep deprivation, feelings of guilt and time constraints [11]. Parenting is a full-time commitment and medical training is a demanding and challenging course [12]. Parenting responsibilities should not preclude one from participating and excelling in medical school. It is therefore necessary that medical students with dependants have access to reasonable adjustments and specific support services to meet the competing demands of family and medicine.

There is an absence of Australian specific research examining the experience of medical students who are pregnant or with parental responsibilities. Studies from the United States and Canada have identified student parents as an at-risk group for dropping out of medical school and suffering from poorer mental health [13]. Some of the major issues for medical students with dependants that these studies identified included occupational exposures, scheduling of clinical rotations, barriers to breastfeeding/chestfeeding, poorer mental health and higher job dissatisfaction. Supporting medical students with dependants to complete their medical degree to the best of their ability is essential for supporting diversity amongst medical graduates. There is international evidence that medical students with dependants, when supported, can excel in medical school. In Canada, medical students with dependants have very good residency acceptance rates and have been noted for

excelling in their demonstration of clinical skills, particularly in regard to communication and multitasking [13]. Medical students with dependants bring a breadth of knowledge, skills and life experience to the medical community.

Institutional support and guidance for medical students with dependants is lacking. A 2021 survey of Australian and New Zealand medical schools indicated that none had specific pregnancy or parental leave policies [14]. While there was access to broader university leave policy this may not reflect the specific needs of medical students especially those undertaking laboratory classes or clinical placements. Three medical schools had publicly available information to aid medical students who are pregnant or those with parental responsibilities. However this information was generally related to occupational health and safety requirements. Given the importance of privacy, particularly regarding fertility and early pregnancy, readily available policies that can provide guidance and support without a requirement for students to disclose their circumstances are vital. Information specific to medical students with dependants should be made available by medical school which contains information around pregnancy leave and assistance, parental leave following birth, breastfeeding/chestfeeding and lactation facilities and flexibility, and caring for an unwell dependant and loss of childcare at short notice.

Single Parent Families

Single parent Families are defined as families containing a person who has no spouse or partner who is the sole guardian of at least one child usually within the resident household, the child may either be dependent or non-dependent [15]. In Australia single parent families account for 14.7% of all families, with 62.8% of these families having dependent children. With the vast majority (83%) of these single parent families being single mother families. The Australian bureau of statistics also highlights that compared to single fathers, single mothers are more likely to be without full time employment until the child reaches school age. This indicates that once the expense of childcare is removed the parent can reestablish their roles within the working society [16]. Furthermore, according to the 2021 census single parent families experience much higher rates of poverty than their couple counterparts, with the maximum benefit from the government fortnightly for a single unemployed parent with a child being \$806 [17]. Overall, the cost of living, lack of employment and support makes it hard for single parents to beat the cycle of poverty and live without financial stress. As per the AMSA student income support policy offering single parents an ability to earn income on placement would alleviate many of the stressors that they face in regards to poverty and long time spent unemployed on placements [18]. For further information please refer to the AMSA Student Income Support Policy [18].

Flexibility in Medical Education Systems

Entrenched in medicine is the 'ideal worker' norm – a person who has no commitments beyond medicine and dedicates their life to working extreme hours [19]. Despite the importance of a healthy work-life balance being conducive to both the practitioner's wellbeing and the delivery of effective patient care [20], there still exists the culture of self-sacrifice [20] and by extension, the expectation that one must prioritise solely their career [21]. Although a growing number of medical students express the desire for greater course and work flexibility, these single-minded ideals often stem from – and are perpetuated by – the framework of medical education, which typically entails a full-time course load coupled with rigorous academic demands [22-25]. Balancing these demands can be difficult for students with time and labour-intensive primary caregiving responsibilities.

Indeed, many female medical students and doctors, are burdened with the gendered conflict between family and their future roles as clinicians [21, 26, 27], and those who do not conform to conventional 'ideal worker' norms frequently face challenges in medical school including but not limited to, discrimination when choosing specialities traditionally dominated by their male counterparts [28-30], medical education systems antagonistic to the demands of parenthood [31,32], and pressure to pursue specialities that are more 'family friendly' [32].

Male students with dependants also appear to face many of the same barriers in medical school as female students with dependants do. For instance, male medical students with dependants have also reported difficulties socialising with their peers due to parenting commitments [33,34]. Beyond such personal admissions however, this unique demographic is little researched to date, meaning that their challenges unfortunately often go unnoticed. In light of this, although it would be remiss to ignore the gendered norms in pregnancy and childrearing that are disproportionately pernicious to women, it is also important that more research is conducted into how male students with dependants are faring in medical school so that future recommendations, guidelines and support systems are appropriately structured.

Undertaking a medical degree with dependants is feasible [26,35]. However, it requires educational environments to support flexible learning and maintain a capacity for individualisation in order to meet specific student needs. Medical education in Australian universities typically involves dividing the multi-year course into two components – preclinical and clinical years. Changes can be implemented in both components to increase amenability for medical students with dependants.

Following the COVID-19 pandemic, time-variable education emerged as a trend conducive to meeting the needs of the future healthcare workforce [36]. Compounded by significant shifts in student demographics [37] – particularly the

feminization of the medical cohort [38,39] – the paucity of time-flexible medical education [40,41] appears suboptimal. In fact, the British Medical Association even passed a motion in 2020 to “lobby medical schools to widen participation through the development of reasonable pathways to study all medical degrees part-time for students with caring responsibilities or health conditions or disabilities” [42].

There are numerous methods that can be implemented in order to assist Australian medical schools in supporting more independent, time-flexible learning arrangements. Firstly, medical schools can consider the delivery of learning content to be in a manner that enables some asynchronous, place-independent study. For instance, this can occur through of increased web-based content or uploading recordings of real-time lectures for those who were unable to attend in person, permitting students to have greater control over their engagement with course material, including the time and duration of their study periods [40,43].

Modifications to the timetabling and timeline of the course itself are also pertinent. The Warren Alpert Medical School at Brown University exemplifies a medical school that encourages flexibility to best support medical students with dependants. Both the pre-clinical and clinical years are divided into two-to-six-week blocks, and the school encourages new mothers/birthing parents to take a minimum 6-week break. This timetabling flexibility is incorporated into each year of the curriculum so that medical students with dependants can meet the requirements of the course without taking a formal leave of absence [44]. Likewise, the Medical University of Ulm in Germany has implemented a range of policies that could be also adapted to Australian medical schools. These include limiting timetabled hours to core working hours, enabling alternative sittings for missed classes or examinations due to family responsibilities, and access to timetables in a timely manner that provide appropriate time for childcare organisation [43]. Schools can also establish structural changes that sanction students to undertake a part-time or voluntary decelerated course pathway. Michigan State University College of Human Medicine has such a program, and it allows students to extend their preclinical years to three or more years at any point during the course, regardless of their reason [40]. In a similar vein, more Australian universities can consider providing early exit pathways that permit students to exit their medical degree prior to graduation with a certifiable outcome, such as a lesser qualification [40]. For example, Monash University’s undergraduate medical program allows for students to exit the five year double degree program early and graduate with a Bachelor of Medical Science after three years of study. For students who have partially completed their course, but are unable to continue, this is an attractive and fair option that ensures their time and efforts have not been wasted. Such timetable adjustments in response to the increased demand for flexibility therefore also lend themselves to a competency and outcomes-based model rather than one that is time-based [36, 40, 45, 46]



Additional support structures further bolster and enhance the effectiveness of a time-flexible model. Reliable and accessible childcare options are essential for academic success, especially for female medical students with children [47]. During clinical years, where students spend the majority of their time on hospital rotations, allowing medical students with dependants to preference their location or hospital of choice will also reduce their caregiving burdens. Schools can also consider implementing advanced course planning schemes [43], tailored career counselling [48], and peer-support groups [47], to further assist students with dependants.

The insufficient corpus of data on Australian medical students with dependants and their needs is an important knowledge gap that needs to be addressed. Although part-time training has been available to doctors for the past twenty years, no Australian medical schools formally offer this option [45]. More research and innovation in this area will help enable the implementation of effective policies – which are also currently lacking [49] – that benefit both universities and students, as all recommendations should ultimately be evidence-based [43].

Finally, it is important to note that policies facilitating flexible learning also have the potential to support a much wider group of students, such as those with elder-care responsibilities [35], financial difficulties [43], disabilities [47], health conditions [42], student athlete contracts and more.

Workplace Health and Safety in Pregnancy

The possibility of exposure to teratogens and infectious diseases during placement and learning activities warrant the inclusion of policies that ensure relevant information is readily accessible and that alternative arrangements are made when possible and appropriate.

Exposure to formaldehyde during anatomy classes is one such instance that demands attention and clear guidance. Whilst existing research is scarce, formaldehyde exposure during pregnancy – particularly during the first trimester – is associated with an increased risk of birth defects, low birth weight and spontaneous abortions [50]. Precautions to protect all students from formaldehyde exposure, regardless of pregnancy status or plan for pregnancy, should be in place given that approximately 30% of pregnancies in Australia are unplanned [51]. Whilst anatomic dissection is a valued and useful component of the medical curriculum, for those that are pregnant or are planning to become pregnant, efforts to provide alternative or flexible learning arrangements, such as video instruction [52] or the usage of 3D anatomical models [53] are possibilities.

The overall exposure to formaldehyde during an anatomy dissection class is dependent on several factors, including the number of cadavers and their

distribution in the laboratory, formalin concentration, the layout of the laboratory, and ventilation systems in place [54]. However, a subsequent study found that even addressing these factors did not satisfactorily lower exposure levels [54]. Instead, methods to effectively reduce exposure include locally exhausted dissection tables, appropriate gloves that protect from nitrile contact and the use of a filter cartridge mask [54,55]. Surgical masks, N-95 particle masks and Class FFP 2 Anti-Odor masks did not provide adequate protection from formaldehyde inhalation [55]. Ultimately however, although air exposure can potentially be mitigated by wearing a filter cartridge mask able to prevent formaldehyde inhalation [56,57], given the sensitivity and privacy of fertility and early pregnancy, accurate information regarding formaldehyde that is easily accessible is still pivotal.

Furthermore, vaccinations and immunisation as part of the clinical placement requirements in various Australian medical schools pose another challenge for pregnant medical students. Live attenuated vaccines are contraindicated during pregnancy [58], yet most Australian medical schools include the MMR vaccine as part of their clinical placement requirement.

Pregnant students also need to be mindful of potentially dangerous infectious exposures during clinical placement that may impact their health, or that of the foetus. Similarly, exposure to radiation during clinical rotations should also be limited or avoided entirely [59]. Pregnancy itself should not inherently prevent students from undertaking in clinical learning, however it remains vital that students are able to discuss concerns regarding their clinical rotation schedule, potential exposures, and the intensity of their placement work with hospital supervisors and teaching staff.

Ultimately, such workplace health and safety considerations are critical for ensuring equity, inclusivity and fairness within the medical cohort. For a student to be disadvantaged in their education on the basis of pregnancy is institutional discrimination, and hence is the responsibility of medical schools across Australia to implement policies and mechanisms that establish a safe environment for pregnant students where they can access equal learning opportunities.

Infant Feeding

Infant feeding is a common and often essential component of parenthood that needs to be juggled around competing academic priorities. With 13 postgraduate medical schools now in Australia, there is a strong rationale behind the increasing need to provide more robust policy and support for infant feeding parents since mature aged students – who are more likely to be starting a family or raising children – constitute a greater proportion of the medical student cohort. Additionally, infant feeding has many social and health benefits for both parent and infant [60,61] and

is considered an integral component of an 'Inclusivity and Diversity Agenda' within the Australian Breastfeeding Association's Breastfeeding Friendly Workplace Accreditation (BFWA) guidelines. The Australian Breastfeeding Association is the peak national body which supports breastfeeding/chestfeeding parents' return to work by providing tool kits, education information packs and other advocacy materials that support medical students feeding infants [62].

The BFWA guidelines are relevant and transferable to any university space or medical school that aims to support infant feeding students [62]. Of particular importance is providing advocacy for students wishing to breastfeed on university campus, and subsequently establishing accessible and appropriate infant feeding student facilities within medical schools that provide privacy, convenience and comfort. Concomitantly, the implementation of a universal policy framework, wherein all Australian medical schools ensure that parents feeding infants can maintain their study and attendance commitments alongside their infant feeding and breastmilk expressing needs, is also pertinent for both staff and students during the years of childbearing and child-rearing. One excellent international example is the Warren Alpert Medical School of Brown University, who have utilised a grant from the Rhode Island Breastfeeding Coalition to develop lactation rooms for students, faculty and staff in their medical education building, and to educate all medical students about maternal and child health care [63]. Additional resources and supports for lactating parents and their supervisors can also be found on their website [64]. Given that Australian medical students who are attending hospital-based placements have access to hospital infant feeding facilities alongside hospital staff, patients and visitors, the expansion of this support to include university-based facilities is therefore only natural.

Bereavement Leave

According to the Australian National Employment Standards, all employees are entitled to two days of paid bereavement leave otherwise known as compassionate leave following the death of an immediate family or household member, if they or their current partner have a miscarriage, or stillborn birth [21]. Medical students with dependants face many challenges and stressors throughout their education. There are limited studies on the impact of the bereavement process on medical students - an already vulnerable group due to the unique stressors they face compared to the general population. Medical students commonly experience personal bereavement, with one study finding up to 23% of students having experienced loss at some point [65]. In a study examining the experiences of medical students' with bereavement, Ferguson et al., identified the desire from medical students to have more formal grief education that encompassed coping skills for dealing with personal grief as well [28]. Students reported frustration at the lack of support from their medical institutions during the bereavement process [28]. Both bereaved and non-bereaved

students felt that medical institutions were not doing enough to provide grief education or support to students [28].

Medical students with dependants or who have taken on a caregiving role have a responsibility to care for their family/household members. Inadequate leave time due to uncertain leave policies can have a potential negative impact on their health and well-being, with medical students reporting a disruption in focus and stress within the first year and after following a loss [29]. In terms of supportive measures and resources, Price et al., (2021) found that most students relied on family and friends from outside of medical school to support them through the bereavement process [29]. The least relied upon resource when dealing with a personal loss was institutional faculty [29].

Most of the literature focused on parental leave policies has been aimed at physicians/graduates from medical school [65]. A study by McGrath et al., (2022) found that none of the 23 accredited medical schools in Australia and New Zealand had a specific pregnancy or parental leave policy; instead, they relied on the University's broader general leave policy which alone is not specific enough for the unique needs of medical students (e.g., parental responsibilities during clinical placements) [65]. Most medical schools did have processes in place to support students with dependants applying for leave, but these processes were scarcely documented and difficult to find [65].

Sick/Parental Leave

As stated above, there is no national standard when it comes to leave policies. Similarly, when it comes to attendance, medical schools have varying requirements [66-68]. Scheduled learning experiences are often measured through attendance tracking as an indirect measure of professionalism [66]. Most medical schools in Australia, require medical students to notify them in advance for planned absences and when possible for unexpected ones. In the case of sick leave, supporting documents (i.e., medical certificates) are often required as proof for an absence greater than 3 days. Stringent attendance requirements have been repeatedly identified by medical students as impacting negatively on well-being contributing to rates of burn-out [27]. In a field where sickness presenteeism is frequently documented, these requirements can deter medical students from taking needed time-off when they are sick or to care for sick dependants to avoid negative repercussions [69]. Other factors such as financial pressures can also prevent medical students with dependants from taking time-off due to sickness. Access to paid sick leave among parents is associated with an increase in the usage of child non-emergency healthcare services [70].

Lack of specific parental leave policies put medical students with dependants at risk of discrimination and reduced learning opportunities [30]. McGarth et al., found the Australian medical universities rarely identified the specific needs of expectant parents [31]. No guidelines concerning students with pregnant partners (such as accompanying them to antenatal visits or extended leave) were found [31]. Parental leave is crucial as it promotes physical recovery after childbirth, improved mental health, and improved infant bonding [32]. More research needs to be conducted to inform evidence-based parental leave policies to prevent inequity and promote well-being.

Mental Health for Students with Dependants

As a demographic, medical students are at high risk of stress, burnout, poor mental health, and suicide [71]. Being a medical student with dependants compounds these stressors and associated risks, as the dual responsibility of being a medical student and parent further complicates a medical student's university experience. Dyrbye, 2010 states that medical students with dependants are three times more likely to seriously contemplate dropping out than the general medical student population due to these exacerbated stressors [72]. Khadjooi, 2012 further supports these concerns, explaining that any mental health struggles are likely to be worsened by the stresses associated with raising a child [73]. Medical Students with dependants experience emotional difficulties as well as stress and psychological exhaustion from a wide range of factors including a lack of time and financial difficulties. These factors also render accessing mental health services more difficult.

Beyond Blue's National Mental Health Survey of Doctors and Medical Students 2019 urges targeted strategies to support and promote the mental health of doctors and medical students as well as specific support for vulnerable subgroups [74]. Although the survey did not study medical students with dependants specifically nor identify them as a vulnerable subgroup, AMSA recognises this as a group that is at higher risk of poorer mental health.

Medical students also face many barriers to accessing mental health care including stigma and shame, fear of negative consequences on their academic/career opportunities, normalisation of mental health symptoms amongst peers, and lack of time [75]. Increasing transparency and knowledge of mental health resources can improve access to mental healthcare for medical students with dependants [75]. There is a lack of data on the needs and perceptions of medical students who are parents. Without this understanding, students with dependants will lack needed support, negatively influencing their future career trajectories [76]. Suresh et al,

(2020) stated that 74.6% of medical students with dependants believed that their careers would be significantly or moderately impacted by work-life balance [77].

Caregiving itself can have a negative impact on one's mental health. The demands of caregiving can cause emotional and physical stress leading to burnout. Due to Australia's ageing population, many medical students may have to take on the role of an informal caregiver to their relatives – including those with dementia and/or mental health illnesses. Cham et al., (2022) found that approximately one third of individuals with mental illness suffered from caregiving burden – stress associated with caring for others [78].

Adequate mental health support and services for medical students with dependants is especially important considering their unique challenges and increased risk of burnout and stress. Research has shown the benefits of implementing specific strategies to alleviate stress, burnout and mental illness in medical students with dependants [72,73,79,80]. These strategies should be holistic and evidence-based, and include having appropriately trained staff and continuous academic and psychological counselling services specific to medical students with dependants. As Iden 2012 recognises, such counselling services may not be of use on financial or legal fronts, but may assist searching for childcare facilities, mental health support, time and stress management [79].

Additional factors that will support medical students with dependants include access to on-site childcare (on campus, at clinical placements, at exam venues), and financial support. This will afford medical students with dependants more flexibility and may alleviate mental burden and stress [80]. Another area of need expressed by medical students with dependants is increased mentoring opportunities and peer support networks as many express feeling isolated [81,82].

However, being both a parent and medical student may bring increased well-being since spending time with loved ones is an effective technique for alleviating stress and avoiding burnout [81]. Medical students with dependants nevertheless need greater support to ensure that they can meet the demands of both raising a family and medicine, as well as caring for their own well-being so that they can excel.

Iden (2012) identifies these target areas to include 'personal relationships with adequate communication, constructive and positive feedback and an acceptable balance between the different spheres of life for students and staff' [79].

Mentoring & Peer-Support Networks

Support from peers and mentors (through student networks, committees and mentor programs) provides specific and holistic guidance in the challenges faced by medical students with dependants. These networks have been shown to be highly beneficial in many areas including academic performance, professional development, combating social isolation, emotional and personal support, and help build a foundation for advocacy for medical students with dependants to improve university/faculty support [80-82].



References

1. Collie E, Lew R, Peate M. Merging motherhood and medicine: A qualitative study exploring barriers and enablers to motherhood among female doctors in Australia. *Women's Health*. 2022 Jan;18:174550572211142
2. Byrnes C, Ganapathy VA, Lam M, Mogensen L, Hu W. Medical student perceptions of curricular influences on their wellbeing: a qualitative study. *BMC medical education*. 2020;20(1):288–288.
3. Welcome to the Fair Work Ombudsman website [Internet]. Fair Work Ombudsman. 2009. Available from: <https://www.fairwork.gov.au/leave/compassionate-and-bereavement-leave>
4. Ferguson KA, Reitschuler-Cross EB, Stahl ST. A Multimethod Examination of Medical Students' Experiences With Bereavement and Complicated Grief. *Omega: Journal of Death and Dying*. 2023;88(2):668–89.
5. Price MJ, Wachsmuth LP, Ferguson KA, Robbins-Welty GA, Riordan PA, Pieper CF, et al. Grief in Medical Students: The Short and Long-Term Impacts on Health and Well-Being. *American journal of hospice & palliative medicine*. 2022;39(2):196–204.
6. Gaghan L, Parker BT. Developing a Parental Leave Policy in Undergraduate Medical Education: A Successful Student-Administration Collaboration. *Academic medicine*. 2022;97(7):994–8.
7. McGrath C, Szabo RA, Bilszta JL. Pregnancy and parental leave policies at Australian and New Zealand medical schools. *Women's health (London, England)*. 2022;18:17455057221142698–17455057221142698.
8. Ortega SR, Barnes JM, Waller JD. Parental leave in medical school: supporting students as parents. *Journal of Osteopathic Medicine (Online)*. 2022;122(5):229–33.
9. Medical Deans, Australia and New Zealand. Medical schools outcomes database (MSOD): national data report 2023, 2023, <https://medicaldeans.org.au/md/2023/08/MSOD-National-Data-Report-2023-July.pdf>
10. Malisa R. Mulholland & Linda S. M. Gulliver (2024) Support of parenting in undergraduate medical training in New Zealand, *Medical Teacher*, 46:2, 273-279, DOI:10.1080/0142159X.2023.2249210
11. Khadjooi K, Scott P, Jones L. What is the impact of pregnancy and parenthood on studying medicine? Exploring attitudes and experiences of medical students. *The journal of the Royal College of Physicians of Edinburgh*. 2012;42:106-10.
12. Taylor J, Macnamara M Fau - Groskin A, Groskin A Fau - Petras L, Petras L. Medical student-mothers. 2013 (2327-2228 (Electronic)).

13. Cujec B, Oancia T, Bohm C, Johnson D. Career and parenting satisfaction among medical students, residents and physician teachers at a Canadian medical school. *CMAJ*. 2000;162(5):637-40.
14. McGrath C, Szabo RA, Bilszta J. Pregnancy and parental leave policies at Australian and New Zealand medical schools. *Women's Health*. 2022 Jan
15. Australian Institute of Health and Welfare. (n.d.). *2.12 single-parent families (tier 2; Aboriginal and Torres ... 2.12 Single-parent families* . <https://www.aihw.gov.au/getmedia/b407bda4-3f40-42d8-ba41-95c285910e8e/11874-2-12.pdf.aspx>
16. *Labour force status of families, June 2023*. Australian Bureau of Statistics. (2023, October 24). <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-status-families/latest-release>
17. Gray, M., & Phillips, B. (2023, February 26). *Analysis of the impact increasing the rate and extending eligibility of parenting payment single on Financial Living Standards*. ANU Centre for Social Research & Methods. <https://csrcm.cass.anu.edu.au/research/publications/analysis-impact-increasing-rate-and-extending-eligibility-parenting-payment#:~:text=According%20to%20the%202021%20Census,of%20single%20parents%20are%20women>.
18. AMSA student income policy
19. Khadjooi K, Scott P, Jones L. What is the impact of pregnancy and parenthood on studying medicine? Exploring attitudes and experiences of medical students. *Journal of the Royal College of Physicians of Edinburgh*. 2012;42(2):106–10
20. Picton A. Work-life balance in medical students: self-care in a culture of self-sacrifice. *BMC Medical Education* [Internet]. 2021 Jan 6;21(1). Available from: <https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02434-5>
21. Adesoye T, Mangurian C, Choo EK, Girgis C, Sabry-Elnaggar H, Linos E. Perceived Discrimination Experienced by Physician Mothers and Desired Workplace Changes. *JAMA Internal Medicine* [Internet]. 2017 Jul 1;177(7):1033–6. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5818808/>
22. Tolhurst HM, Stewart SM. Balancing work, family and other lifestyle aspects: a qualitative study of Australian medical students' attitudes. *Medical Journal of Australia*. 2004 Oct;181(7):361–4.
23. Howell LP, Beckett LA, Nettiksimmons J, Villablanca AC. Generational and Gender Perspectives on Career Flexibility: Ensuring the Faculty Workforce of the Future. *The American Journal of Medicine* [Internet]. 2012

Jul;125(7):719–28.

Available

from:

[https://www.amjmed.com/article/S0002-9343\(12\)00363-4/abstract](https://www.amjmed.com/article/S0002-9343(12)00363-4/abstract)

24. Gillissen A, Kochanek T, Zupanic M, Ehlers JP. Millennials Medical Students Generation at the Crosswalks: Motivations and Attitudes Towards Study and Future Career – A Mixed-Method Study. *Advances in Medical Education and Practice*. 2022 Oct;Volume 13:1305–19
25. Piotrowski, M, Stulberg, D & Egan, M 2018, Medical student interest in flexible residency training options, *Family medicine*, vol. 50, no. 5, pp. 339–44
26. Smith V, Bethune C, Hurley KF. Examining Medical Student Specialty Choice Through a Gender Lens: An Orientational Qualitative Study. *Teaching and Learning in Medicine*. 2017 May 12;30(1):33–44
27. Hoffman R, Mullan J, Nguyen M, Bonney AD. Motherhood and medicine: systematic review of the experiences of mothers who are doctors. *Medical Journal of Australia*. 2020 Aug 31;213(7):329–34
28. Hill E, Vaughan S. The only girl in the room: how paradigmatic trajectories deter female students from surgical careers. *Medical Education*. 2013 May 12;47(6):547–56.
29. Bruce AN, Battista A, Plankey MW, Johnson LB, Marshall MB. Perceptions of gender-based discrimination during surgical training and practice. *Medical Education Online* [Internet]. 2015 Jan;20(1):25923. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4317470/>
30. Burgos CM, Josephson A. Gender differences in the learning and teaching of surgery: a literature review. *International Journal of Medical Education* [Internet]. 2014 Jun 15; 5:110–24. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4207172/>
31. Simpson AN, Cusimano MC, Baxter NN. The inconvenience of motherhood during a medical career. *Canadian Medical Association Journal* [Internet]. 2021 Sep 19; 193(37):E1465–6. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8476216/>
32. Collie E, Lew R, Peate M. Merging motherhood and medicine: A qualitative study exploring barriers and enablers to motherhood among female doctors in Australia. *Women's Health*. 2022 Jan;18:174550572211142
33. Glauser W. (2019). How medical schools can better support students who are parents. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne*, 191(8), E243–E244. <https://doi.org/10.1503/cmaj.109-5707>
34. Howell LP, Beckett LA, Villablanca AC. Ideal Worker and Academic Professional Identity: Perspectives from a Career Flexibility Educational Intervention. *The American Journal of Medicine*. 2017 Sep;130(9):1117–25.



35. Picton A. Work-life balance in medical students: self-care in a culture of self-sacrifice. BMC Medical Education [Internet]. 2021 Jan 6;21(1). Available from:
<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02434-5>
36. Thibault GE. The future of health professions education: Emerging trends in the United States. FASEB BioAdvances. 2020 Sep 23;2(12):685–94.
37. Raven PW. If doctors can train part time, why not medical students? BMJ. 2014 Aug 11;349: g4897–7
38. Joyce CM, Scott A, Jeon SH, Humphreys J, Kalb G, Witt J, et al. The “Medicine in Australia: Balancing Employment and Life (MABEL)” longitudinal survey - Protocol and baseline data for a prospective cohort study of Australian doctors’ workforce participation. BMC Health Services Research. 2010 Feb 25;10(1)
39. Brooks PM, Lapsley HM, Butt DB. Medical workforce issues in Australia: “tomorrow’s doctors – too few, too far.” Medical Journal of Australia [Internet]. 2003 Aug 18;179(4). Available from:
<https://www.mja.com.au/journal/2003/179/4/medical-workforce-issues-australia-tomorrows-doctors-too-few-too-far>
40. Barrett A, Cheshire L, Woodward-Kron R. Flexibility in primary medical programs: A scoping review. Focus on Health Professional Education: A Multi-Professional Journal. 2022 Dec 16;23(4):16–34
41. Webb AMB, Hasty BN, Andolsek KM, Mechaber HF, Harris TB, Chatterjee A, et al. A Timely Problem: Parental Leave During Medical Training. Academic Medicine [Internet]. 2019 Nov 1; 94(11):1631.
42. Moberly T. Medical students should be guaranteed training posts and access to part time study, BMA says. BMJ. 2022 Jul 1;01632
43. Liebhardt, H, Niehues, J; Fegert, JM 2012, Practical approaches to family friendly medical studies, GMS Zeitschrift für Medizinische Ausbildung, vol. 29, no. 2, pp. 9-16
44. Taylor J, Macnamara M Fau - Groskin A, Groskin A Fau - Petras L, Petras L. Medical student-mothers. 2013 (2327-2228 (Electronic))
45. Gun, MT 2001,Part-time specialty training – my experience, Medical Journal of Australia, vol. 174, no. 8, pp. 410-2
46. Pathiyil Ravi Shankar, Azhar T, Vishna Devi Nadarajah, Hui Meng Er, Mahwish Arooj, Wilson IG. Faculty perceptions regarding an individually tailored, flexible length, outcomes-based curriculum for undergraduate medical students. Korean Journal of Medical Education [Internet]. 2023 Sep 1;35(3):235–47. Available from:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10493402/>



47. Iden K, Nürnberger F, Sader R, Dittrich W. Parents studying medicine – the dichotomy of studying with a family. *GMS Z Med Ausbild.* 2012;29(2):Doc20-Doc.
48. Scarff CE, Cheshire L, Woodward-Kron R. You can't study medicine part-time, can you? *Focus on Health Professional Education: A Multi-Professional Journal* [Internet]. 2023 Sep 29 [cited 2024 Mar 2];61–7. Available from: <https://fohpe.org/FoHPE/article/view/615>
49. McGrath C, Szabo RA, Bilszta J. Pregnancy and parental leave policies at Australian and New Zealand medical schools. *Women's Health.* 2022 Jan 1;18:174550572211426-174550572211426.
50. Duong, A, Steinmaus, C, McHale, CM, Vaughan, CP & Zhang, L 2011, Reproductive and developmental toxicity of formaldehyde: A systematic review. *Mutation research/Reviews in Mutation Research*, vol. 728, no. 3, pp. 118-38
51. Mazza, D., Bateson, D., Frearson, M., Goldstone, P., Kovacs, G., & Baber, R. (2017). Current barriers and potential strategies to increase the use of longacting reversible contraception (LARC) to reduce the rate of unintended pregnancies in Australia: An expert roundtable discussion. *The Australian & New Zealand journal of obstetrics & gynaecology*, 57(2), 206-212. doi:10.1111/ajo.12587
52. DiLullo, C., Coughlin, P., D'Angelo, M., McGuinness, M., Bandle, J., Slotkin, E. M., . . . Berray, S. J. (2006). Anatomy in a New Curriculum: Facilitating the Learning of Gross Anatomy using Web Access Streaming Dissection Videos. *Journal of Visual Communication in Medicine*, 29(3), 99-108. doi:10.1080/01405110601080738
53. Ye Z, Jiang H, Bai S, Wang T, Du Y, Hou H, et al. Meta-analyzing the efficacy of 3D printed models in anatomy education. *Frontiers in Bioengineering and Biotechnology.* 2023 Feb 20;11. Available from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9986435/>
54. Klein, RC, Klein, RC, King, C & Castagna, P 2014, Controlling Formaldehyde Exposures in an Academic Gross
55. Goyer (2007). *Anatomy Laboratory*, *Journal of occupational and environmental hygiene*, vol. 11, no. 3, pp. 127-32
56. REPRODUCTIVE HEALTH AND THE WORKPLACE [Internet]. *Cdc.gov.* 2019. Available from: <https://www.cdc.gov/niosh/topics/repro/formaldehyde.html>
57. Haffner, MJ, Oakes, P, Demerdash, A, Yammine, KC, Watanabe, K, Loukas, M & Tubbs, RS 2015, 'Formaldehyde exposure and its effects during pregnancy: Recommendations for laboratory attendance based on available data', *Clinical Anatomy*, vol. 28, no. 8, pp. 972-9

58. World Health Organization. Safety of Immunization during Pregnancy [Internet]. World Health Organization; 2014. Available from: https://www.who.int/vaccine_safety/publications/safety_pregnancy_no_v2014.pdf
59. Taylor J, Macnamara M, Groskin A, Petras L. Medical student-mothers. Rhode Island Medical Journal (2013) [Internet]. 2013 Mar 1;96(3):42–5. Available from: <https://pubmed.ncbi.nlm.nih.gov/23641439/>
60. Dieterich CM, Felice JP, O’Sullivan E, Rasmussen KM. Breastfeeding and Health Outcomes for the Mother-Infant Dyad. Pediatric Clinics of North America [Internet]. 2013 Feb;60(1):31–48. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3508512/>
61. Meek JY, Noble L. Policy Statement: Breastfeeding and the Use of Human Milk. Pediatrics. 2022 Jun 27;150(1)
62. Breastfeeding Information [Internet]. Australian Breastfeeding Association. Available from: <https://www.breastfeeding.asn.au/bfinfo/index.html>
63. MacNamara MMC, Moren K, Taylor LE, Taylor JS. State-wide support for physician-mothers who are breastfeeding. Medicine and Health, Rhode Island [Internet]. 2012 Jan 1;95(1):9–13. Available from: <https://pubmed.ncbi.nlm.nih.gov/22439455/>
64. Lactation Resources [Internet]. Brown University. Available from: <https://www.brown.edu/about/administration/human-resources/benefits/family-resources/lactation-resources>
65. McGrath C, Szabo RA, Bilszta JL. Pregnancy and parental leave policies at Australian and New Zealand medical schools. Women’s health (London, England). 2022;18:17455057221142698–17455057221142698.
66. Medical Program Participation Guidelines [Internet]. medical-school.uq.edu.au. 2023 [cited 2024 Apr 14]. Available from: <https://medical-school.uq.edu.au/medical-program-participation-guidelines?p=2#2>
67. Process for leave [Internet]. ANU Medical School. 2019 [cited 2024 Apr 14]. Available from: <https://medicalschoool.anu.edu.au/wellbeing/medical-students-support-centre/process-leave>
68. Rules for Doctor of Medicine [90850] [Internet]. Handbook 2024 : The University of Western Australia. [cited 2024 Apr 14]. Available from: <https://handbooks.uwa.edu.au/rules?code=90850>
69. Kaldjian LC, Shinkunas LA, Reisinger HS, Polacco MA, Perencevich EN. Attitudes about sickness presenteeism in medical training: is there a hidden curriculum? Antimicrobial resistance & infection control. 2019;8(1):149–149.
70. Seixas BV, Macinko J. Unavailability of paid sick leave among parents is a barrier for children’s utilization of nonemergency health services:



- Evidence from the National Health Interview Survey. *The International journal of health planning and management*. 2020;35(5):1083–97.
71. Beyond Blue. National Mental Health Survey of Doctors and Medical Students [Internet]. Beyond Blue; 2019. Available from: https://www.beyondblue.org.au/docs/default-source/research-project-files/bl1132-report--nmhdmss-full-report_web
 72. Dyrbye, L. N., Thomas, M. R., Power, D. V., Durning, S., Moutier, C., Massie, F. S., . . . Sloan, J. A. (2010). Burnout and Serious Thoughts of Dropping Out of Medical School: A Multi-Institutional Study, 94.
 73. Khadjooi K, Scott P, Jones L. What is the impact of pregnancy and parenthood on studying medicine? Exploring attitudes and experiences of medical students. *The journal of the Royal College of Physicians of Edinburgh*. 2012;42:106-10.
 74. Liebhardt, H, Niehues, J; Fegert, JM 2012, Practical approaches to family friendly medical studies, *GMS Zeitschrift für Medizinische Ausbildung*, vol. 29, no. 2, pp. 9-16
 75. Maria Berliant, Christopher Mattice, Kay-Anne Haykal, Nabiha Rahman, Chirayu Bhatt. Barriers faced by medical students in seeking mental healthcare: A scoping review [version 1; peer review: 2 approved]. *MedEdPublish*. 2022;12.
 76. Durfey SNM, White J, Adashi EY. Pregnancy and Parenting in Medical School: Highlighting the Need for Data and Support. *Academic medicine*. 2021;96(9):1259–62.
 77. Suresh S, Hoffman R, Liu S, Gosbell A. Australian medical student expectations of work-life balance as a doctor. *MedEdPublish* (2016). 2020;9:256. Published 2020 Nov 17. doi:10.15694/mep.2020.000256.1
 78. Cham CQ, Ibrahim N, Siau CS, Kalaman CR, Ho MC, Yahya AN, et al. Caregiver Burden among Caregivers of Patients with Mental Illness: A Systematic Review and Meta-Analysis. *Healthcare (Basel)*. 2022;10(12):2423-.
 79. Iden K, Nürnberger F, Sader R, Dittrich W. Parents studying medicine - the dichotomy of studying with a family. *GMS Z Med Ausbild*. 2012;29(2):Doc20- Doc.
 80. Taylor J, Macnamara M Fau - Groskin A, Groskin A Fau - Petras L, Petras L. Medical student-mothers. 2013 (2327-2228 (Electronic)).
 81. Canadian Federation of Medical Students (CFMS). Support of Parents in Undergraduate Medical Education [Internet]. Canadian Federation of Medical Students (CFMS); 2017. Available from: https://www.cfms.org/files/position_papers/agm_2017_support_of_parents.pdf
 82. Fox G, Schwartz A, Hart KM (2006). Work-Family Balance and Academic Advancement in Medical Schools. *Academic Psychiatry*,

30:227-234. 28. Meldrum H. Exemplary Physicians' Strategies for Avoiding Burnout [Internet]. Wolters Kluwer Health; 2010. Available from: https://www.wafp.org/assets/files/pdfs/wafp_health-wellmeldrum_2010_exemplary-strategies-for-avoiding-burnout.pdf

Policy Details:

Name: Medical Students with Dependants

Category: C – Supporting Students

History: Reviewed Council 1, 2024
Brooke Joyce (Lead Policy Author), Paula Chen, Jens Christensen, and Unmber Akhtar; with Sapumal Gunaruwan (National Policy Mentor), Jonathon Bolton (National Policy Officer), and Harry Luu (National Policy Secretary)

Adopted Council 2, 2020 as *Medical Students with Dependants*
Tegan Cosgrove, Stephanie McLennan, Spela Berlec, Neha Gupta, Louisa He, Oliver Le Grice, Travis Lines (National Policy Officer).

